An analysis of the issue of consumer detriment and the most appropriate methodologies to estimate it

Final Report for DG SANCO
by Europe Economics

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Note: in this published version of the report, confidential information has been replaced by the symbol [✂].

1   In late December 2005 Europe Economics was commissioned by DG SANCO to analyse the issue of consumer detriment and the most appropriate methodologies to estimate it. This document is the published version of our final report.

2   There are five elements to the project, namely:

- A multi-disciplinary review of existing research;
- Definition of the concept, including a thorough analysis of different sources of consumer detriment;
- Estimation of consumer detriment;
- Market monitoring indicators;
- Pilot tests.

3   Below we begin by summarising the key outputs which have emerged from the project. We then go through our work in each of the above areas.

4   We would like to acknowledge that the psychology and marketing analysis in this report is largely the work of Professor Peter Lunt from Brunel University.

Key Outputs

5   A robust understanding of consumer detriment is at the heart of good policy-making in the field of consumer protection. It is also important for other areas of policy-making which affect consumers.

6   There are two main issues facing policy-makers in relation to consumer detriment:

- Identifying where consumers are suffering detriment, to inform the formulation of policy initiatives;

- Assessing the impact of policy on consumer detriment, to assist in implementing a policy regime which promotes the interests of consumers in an effective way.

7   The diagram below summarises the operational tools which have emerged from our research to assist DG SANCO in each of the above areas. Further information on these tools is given later in this executive summary and in the rest of the report.

1 - Identifying priorities for policy action

CONSUMER SURVEY

Measurement of existing consumer detriment

MARKET MONITORING INDICATORS

✓ Consumer complaints
✓ Civic voice indicators
✓ Market power indicators
✓ Information deficit indicators

Stage 2 process to filter results
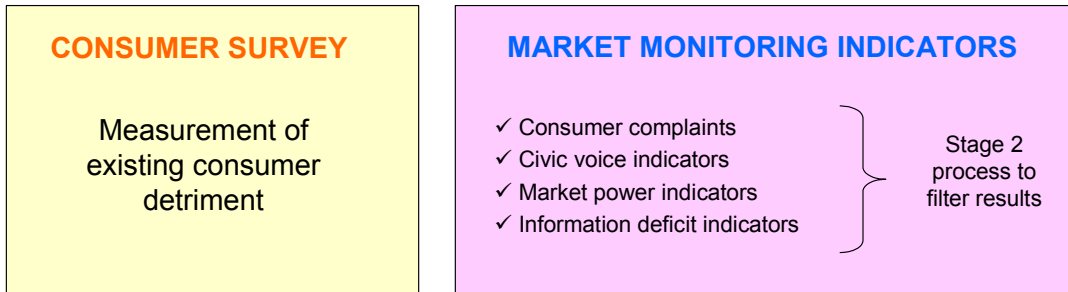
2 - Assessing policy proposals

HANDBOOK ON ASSESSING IMPACT OF POLICY ON CONSUMER DETRIMENT

8   Alongside these operational tools, this report contains a substantial amount of useful information and analysis (e.g. on relevant literature, the definition of consumer detriment, sources of consumer detriment, possible measurement methodologies, and so on).

9   We now turn to each of the five elements of the project.

Multi-disciplinary Literature Review

10   Our literature review covered over 60 documents drawn mainly from the fields of economics, behavioural economics, psychology and marketing.

11   The economics literature covered a range of issues relevant to consumer welfare. We covered a number of theoretical and empirical papers relating to the loss of welfare from market power, along with literature on the estimated consumer savings which have resulted from the work of competition authorities. We also reviewed papers on the impact of information problems on consumer welfare.   Our review included literature on search and switching costs, and on the strategies that firms may use to reduce the extent to which consumers research and compare the prices that are on offer. We reviewed a number of papers relevant to market monitoring, including a paper by NERA on empirical indicators for market investigations (discussed later in this executive summary). Other papers included a survey of consumer detriment carried out by the Office of Fair Trading (OFT) in 1999 and a paper by Hausman on the loss of consumer welfare from regulation-induced delays in the introduction of a new technology.

12   The literature we reviewed from the field of behavioural economics covered behavioural biases and their effects on consumers, and the debate on paternalistic policies to address such biases. In particular, we reviewed a number of papers on time variant preferences, as well as papers on limited foresight, consumer loss aversion and consumer myopia. In relation to paternalistic policies, we reviewed two papers which argued in favour of paternalism and one paper which set out the case against such a policy agenda.

13   We covered in some detail the work that Professor Lunt did for the OFT on the psychology of consumer detriment.[1] This paper covered a range of pertinent issues, including consumer vulnerability, consumer decision-making, consumer satisfaction and dissatisfaction, consumer complaints, emotions and consumer detriment, and longer term psychological detriment.

14   Our review included a range of other papers from the fields of psychology and marketing. We reviewed a number of papers on consumer satisfaction and dissatisfaction, including the INRA-Deloitte study carried out for DG SANCO which developed indicators of consumer satisfaction and the subsequent INRA-Ipsos study which implemented this methodology. We covered two papers on the effect that misleading price comparisons have on consumers, and several related papers on the effect that "bait and switch" marketing has on consumer welfare. Other literature we reviewed included OFT focus group research on consumer detriment, the transcripts of an OFT conference on consumer detriment (organised by Professor Lunt) which took place in 2005, and papers on the psychology of buying and selling in the home, consumer privacy, how people judge the "fairness" of prices, and online marketing directed at children.

Definition of the Concept

15   In this part of the project, we developed definitions of consumer detriment, examined insights from psychology and marketing, and analysed how consumer detriment can arise from market failures, regulatory failures and behavioural biases.

16   Our literature review concluded that there was no universally accepted definition of the term "consumer detriment." However, we suggest that definitions of consumer detriment fall into two broad categories, which we label "personal detriment" and "structural detriment". These concepts can be defined as follows:

- **Personal detriment** – negative outcomes for individual consumers, relative to some benchmark such as expectations or reasonable expectations;

- **Structural detriment** – loss of consumer welfare due to market failure or regulatory failure. Economists typically measure consumer welfare using the concept of

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[1]   *The psychology of consumer detriment,* Dr. Peter Lunt, with Laura Miller, Johanna Körting and Joseph Ungema, University College London, published as paper OFT 792, January 2006.

consumer surplus, which is the difference between what a consumer is willing to pay for a product and what he actually has to pay.

17   Personal detriment focuses on *ex post* outcomes for those consumers who have a negative experience. It may comprise both *financial* and *non-financial detriment*, with the latter including loss of time and *psychological detriment*. We suggest that personal detriment should be assessed against a counterfactual of "reasonable expectations" rather than "expectations", partly because the latter might lead to under-estimation of the detriment suffered by vulnerable groups who may have low expectations.

18   By contrast, structural detriment considers consumers in aggregate and is based on the *ex ante* reduction of consumer surplus rather than on *ex post* outcomes. We argue that if consumers are fully informed and rational, then structural detriment fully captures the risk of *ex post* psychological detriment, because this risk will be taken into account in consumers' willingness to pay (and will thus be captured in consumer surplus). In our view, there is no perfect candidate to use as the counterfactual for structural detriment, although possibilities include perfect competition or "well-functioning markets" (which is more realistic but less easy to define).

19   Our research in the fields of psychology and marketing provided useful insights. We have identified a number of consumer groups which may be vulnerable, but also note that recent research emphasises the idea that *any* consumer can be vulnerable in certain circumstances. Our analysis of individual psychology finds that, while choice is often beneficial for consumers, some research suggests that too much choice may be detrimental. Within the framework of social psychology, marketing can be seen as an attempt to exercise social influence and to change attitudes. Marketing can exploit social rules of politeness (e.g. people may feel rude if they put the phone down on telemarketers), and advertising can sometimes be a cause of offence when it challenges people's values. In consumer psychology, the idea of consumer satisfaction has been widely studied, and there are a range of individual differences (e.g. impulsiveness, consumer literacy) which affect how consumers respond to marketing.

20   A source of consumer detriment widely discussed in economics is market failure. We suggest that the most important sources of market failure to consider in the context of consumer detriment are market power and information problems.

21   Market power can lead to consumer detriment by allowing firms to increase prices above the competitive level, both deterring marginal consumers from purchasing the product, and leading to a transfer of welfare from remaining consumers to producers. We have analysed various factors that may give rise to market power (e.g. barriers to entry, high concentration), and have reviewed theoretical models of market power and empirical literature on estimating the resulting loss of consumer welfare.

22   Imperfect information can lead to consumer detriment in a number of ways. For instance, imperfect information on prices (e.g. due to search costs) may allow firms to raise their prices above the competitive level. Imperfect information on quality, particularly in the

case of experience goods[2] and credence goods[3], can prevent consumers making optimal choices and harm the functioning of markets. Again, we have reviewed theoretical and empirical literature on estimating the loss of consumer welfare from such information problems.

23   Consumer detriment may also arise from reductions in the rate of innovation through time, whether due to market failure (innovation spillovers) or regulatory failure (e.g. mandatory product specifications which restrict the scope for innovation).

24   Another potential source of consumer detriment is sub-optimal product variety. The economic literature in this area suggests that free markets can provide either too much or too little product variety, depending on conditions.

25   Alongside market failures, consumer detriment can also arise from regulatory failure. Regulations which could lead (in some circumstances) to consumer detriment include:

- Product bans and restrictions;
- Intervention in markets to set prices or quantities;
- Regulatory barriers to entry (e.g. licensing regimes);
- Restrictions on trade;
- Regulations which lead to cost increases for firms ("red tape");
- Restrictions on production activity (e.g. environmental regulations);
- Acts of omission (i.e. failure to take action to provide a framework for well-functioning markets or to tackle market failure).

26   Behavioural economics provides interesting insights into the possibility of consumer detriment arising from biases in consumer behaviour. Models in behavioural economics can be divided into two categories:

- *Preference-based theories*, in which consumers have preferences different from those assumed in mainstream economics; and

- *Cognitive-based theories*, in which consumers make cognitive errors in taking their decisions (e.g. they misunderstand the laws of probability).

27   Our view is that consumer detriment arises mainly in those cases where consumers make cognitive errors: here it can be argued that consumers fail to maximise their well-being given their underlying preferences. On the other hand, policy-makers would need to take a paternalistic view of preferences in order to argue that anomalous preferences give rise to consumer detriment.

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[2]   Goods whose quality can only be assessed by consumers after consumption has taken place (e.g. home maintenance).
[3]   Goods whose quality cannot even be assessed after consumption, unless the consumer purchases a second expert opinion (e.g. legal or medical services).

Estimating Consumer Detriment

28   Our terms of reference require us to develop a methodology or methodologies which can be used for the estimation of consumer detriment.

29   We suggest that estimates of personal detriment broken down by product, sector or type of transaction would be useful (alongside any market monitoring indicators) in *identifying problem areas where policy action might be appropriate*. By contrast, we consider that estimates of structural detriment are less useful when scanning for problem areas, because estimating structural detriment is inherently a bottom-up, case-specific process.

30   We suggest that both personal detriment and structural detriment are potentially useful concepts when *assessing the impact of policy proposals*. Protecting consumers against serious personal detriment may give them greater confidence to participate in markets, whereas the concept of structural detriment is useful in assessing the impact of policy on consumers in aggregate.

31   Based on an assessment of a wide range of possible methodologies, we conclude that:

- The best method of measuring the existing level of personal detriment is a survey of consumers. In particular, a survey approach would allow the collection of data on a representative sample of consumer problems. However, one of the drawbacks of a survey approach is the cost.

- The best method of assessing the impact of policy on consumer detriment is inherently case specific. In light of this, we have written a handbook for desk officers setting out the principles, techniques and processes which can be used to estimate the impact of policy on consumers in different cases.

32   We reviewed a number of previous surveys of consumer problems to identify what lessons we could learn in designing our own survey methodology. A particularly useful precedent is the OFT survey on consumer detriment carried out in 1999, and we are grateful to the OFT for providing us with a copy of the survey questionnaire and additional information about the results. We also reviewed the INRA-Ipsos survey on consumer satisfaction carried out for DG SANCO. We concluded that, while the INRA-Ipsos survey was informative, it would not be possible to combine it with our own survey without compromising the objective of either methodology.

33   We have had some discussion and correspondence with Ipsos-MORI regarding how best to conduct a survey of consumer detriment. The advice we received included that we should use an *ad hoc* survey (rather than an Omnibus survey) and that the survey should be conducted face-to-face (rather than over the phone or internet).

34   A problem identified by both the OFT and the US Federal Trade Commission (FTC) in previous survey work concerns the fact that there tends to be a small sub-set of consumers who have experienced very large financial losses. This makes it difficult to produce reliable estimates of financial detriment or to break down financial detriment by

sector, because only a few such consumers are likely to be picked up in any random survey sample. Possible ways to address this problem include asking some respondents about their worst problem (rather than a random problem or their last problem), and/or using filter questions in an Omnibus survey to build up a booster sample of cases of large detriment.

35   We recommend surveying a rotating sample of Member States each year. This would allow the survey to be fine-tuned each year in light of experience, and would allow the Commission to gather regular data on consumer problems in a cost-effective way. Based on data supplied by Ipsos-MORI, we estimate that a four-year survey cycle would cost on average [✂] per annum, and that the cost of a five-year cycle would average [✂] per annum.[4]

36   The proposed questionnaire (revised in the light of findings from pilot testing) is provided as a separate document alongside this report.

Market Monitoring Indicators

37   Our terms of reference require us to examine "whether it would be possible to establish indicators providing early warning against the occurrence of sub-optimal outcomes for consumers."

38   NERA conducted a similar exercise for the OFT (published in 2004),[5] in which they attempted to develop a tool which could be used to screen top-down data to identify markets in which there was consumer detriment. NERA examined 32 indicators in total, which they grouped into 9 categories: barriers to entry, productivity, concentration, profitability, prices, consumer complaints, innovation, switching costs and other. For a sub-set of these indicators, NERA tested two combination methodologies: taking the worst ranked sectors on each indicators, and calculating a weighted average (or Borda) score across indicators. However, some of the results appeared to be spurious. NERA concluded that there were severe limitations with a top-down methodology, and that bottom-up search techniques were needed either as a complement or substitute.

39   We have examined a wide range of possible indicators and some alternative combination methodologies. Our suggested approach uses the following two-stage procedure:

Stage 1 – the use of top-down data (mostly quantitative) to scan the economy for sectors in which there may be a problem.[6]

Stage 2 – filtering the results of stage 1 using bottom-up indicators which require desk officers to make qualitative judgments.

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[4]   The costs vary between years depending on which countries are included in that year's sample.
[5]   "Empirical indicators for market investigations", Prepared for the OFT by NERA, September 2004.
[6]   The "civic voice" indicators mentioned below could generate both qualitative and quantitative data.

40   We have identified the following indicators for use at stage 1:

- **Consumer complaints**;

- **"Civic voice" indicators** which track expressions of consumer concerns by civil society bodies and identify emerging consumer problems on web logs (blogs);

- A set of **market power indicators** which are aimed at identifying sectors which have high concentration *AND* possible barriers to entry *AND* high profitability; [7]

- **"Information deficit" indicators** constructed using responses to the consumer survey.

41   We have carried out analysis of the usefulness of consumer complaint data, drawing on literature relating to the determinants of consumer complaint behaviour. Complaints clearly provide an indicator of where consumers feel that they have suffered significant (personal) detriment. However, complaint data suffer from a number of biases (e.g. consumers do not always complain when they suffer detriment, and the tendency to complain varies between different groups of consumers). In light of this, complaint data need to be interpreted cautiously.

42   Apart from some limited complaint data available from ECC-Net (which appears to relate particularly to cross-border problems), there appears to be little EU-wide complaint data currently available. Hence, monitoring of consumer complaints would probably require data to be aggregated from national sources. This may in turn require a Commission initiative in the form of a Communication or an informal data-sharing arrangement.

43   The "civic voice" indicators are derived from our psychology and marketing analysis. The proposed methodology involves periodically reviewing the campaigns conducted by consumer representation bodies and classifying them using relevant variables from the consumer survey (e.g. for sector and type of problem). To complement this, we suggest reviewing emerging consumer issues in relevant web logs (blogs) to provide an early indicator of potential new sources of detriment.

44   The market power indicators are subject to a number of inherent weaknesses and we recommend that results be treated with caution. A major drawback is that, within a top-down market monitoring exercise, it is impossible (in our view) to ensure that each market is correctly defined. In addition to the problem of market definition, there are other theoretical weaknesses to each of the indicators (e.g. high concentration does not necessarily imply market power). Finally, there are problems associated with the data which is available to calculate these indicators.

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[7]   The idea is that where all three of these characteristics are present in combination, there is reason to suspect that consumers may be suffering detriment due to market power. However, this set of indicators is particularly affected by the market definition problem, and hence any results need to be treated with caution.

45   Finally, the "information deficit" indicators would be constructed from survey questions which ask consumers to suggest sectors in which they feel they lack the information they need to make good decisions about whether to purchase a product, or which supplier or brand to choose.

46   The stage 2 filtering process would involve removing results which were obviously spurious, checking the validity of the reasons why each sector was selected at stage 1, and assessing the remaining sectors against a further set of qualitative, bottom-up indicators. Some draft guidance for desk officers on how to carry out stage 2 is contained in appendix 4.

Pilot Tests

47   There were three elements to the pilot testing we carried out, corresponding to the key outputs discussed earlier in this executive summary:

- A pilot test of the survey approach, which involved cognitive testing of a draft survey questionnaire in the UK and Poland;

- A test of the handbook, by applying it to an illustrative policy;

- Testing of the market monitoring indicators.

48   Cognitive testing is a qualitative approach which involves in-depth discussion of the questionnaire content with the respondent as the interview unfolds. Twelve interviews were conducted in both the UK and Poland, with respondents selected to ensure coverage of a mix of demographic groups. This work was carried out by Ipsos-MORI and is written up in the Ipsos-MORI documents provided alongside this report.

49   An important conclusion drawn by Ipsos-MORI is that the survey approach represents "a perfectly valid way to measure consumer detriment." The cognitive testing also identified a range of enhancements to the draft questionnaire, thus improving the results that would be obtained from a full-scale quantitative survey.

50   We have carried out a small-scale test of the handbook, by applying it to an illustrative policy.

51   We were able to carry out far more extensive testing of the market monitoring indicators than we originally envisaged, particularly in relation to the market power indicators.

52   We tested the consumer complaints indicator by analysing UK data from the Consumer Direct complaints database. It was clear from this test that consumer complaints can provide valuable information for policy-makers (e.g. on the sectors where consumers are experiencing detriment, the nature of that detriment, and how detriment breaks down between different methods of purchase).

53   The "civic voice" indicators were tested by reviewing the campaigns run by the Consumers Association in its regular publication *Which?*. Again, this appeared to be a fruitful source of information on consumer concerns, helping to fill the information gap arising from the fact that individual consumers do not always complain about their problems.

54   We used data from the Amadeus database to test the market power indicators. We began by calculating the indicators, both on an EU-wide basis and separately for each Member State, for most sectors of the economy. We then used top-down data on past EC antitrust cases to calibrate the thresholds used to assess whether sectors were problematic. The optimal set of thresholds identified by this process appeared intuitively reasonable, and gave a correlation coefficient of around 0.3 between the results from our indicators and the number of past EC antitrust cases in each sector. A number of the sectors selected by our indicators appeared quite plausible candidates for potential problem markets, although others appeared to be spurious. Based on the results from this extensive pilot testing, we developed revised proposals for market power indicators, which included dropping two of the less useful (and more data-intensive) of the indicators and identifying a possible set of threshold values for the others.

55   Finally, the "information deficit" indicators were tested as part of the cognitive testing undertaken by Ipsos-MORI. A number of problems were identified with the relevant survey questions, and in addition it was unclear whether responses to the questions were focusing on the right sort of sectors. We have made some initial changes to the drafting of the survey questions, but it remains unclear how workable these "information deficit" indicators are in practice.

1 INTRODUCTION

1.1 In late December 2005 Europe Economics was commissioned by DG SANCO to analyse the issue of consumer detriment and the most appropriate methodologies to estimate it.

Terms of reference

1.2 The Commission wishes to obtain a rigorous policy tool for the assessment of consumer detriment, based on a sound definition of the concept and reliable estimation of its numerous variables, in order to identify problem areas and set appropriate priorities for action.

1.3 Further, our terms of reference state that the methodology or methodologies developed by this study should be capable of being used to provide information and data relevant for:

(a) The formulation of policy initiatives;

(b) The appraisal of different policy options; and

(c) Assessing the impact of regulatory decisions.

1.4 There are five elements to the project, which can be summarised as follows:

(a) **A multi-disciplinary review of existing research**, covering existing research on the concept of consumer detriment from relevant fields such as consumer economics, behavioural economics, psychology, and marketing.

(b) **Definition of the concept**, based on a thorough analysis of different sources of consumer detriment, establishment of sound operational benchmarks, and covering both monetary and non-monetary components of harm to consumers.

(c) **Estimation of consumer detriment**, involving the development of a methodology or methodologies which can be used for the estimation of consumer detriment, and which can potentially be applied across markets, market segments and different product sectors, as well as across different policy areas.

(d) **Market monitoring indicators**: the study should examine whether it would be possible to establish indicators providing early warning against the occurrence of sub-optimal market outcomes for consumers.

(e) **Pilot tests** of the methodologies proposed for the estimation of consumer detriment, in order to test the robustness of the proposed policy tools and to refine the suggested methodology (if necessary) in light of the results.

The importance of consumer detriment

1.5   What is consumer detriment? The Oxford English Dictionary defines "detriment" as "loss sustained by or damage done to a person or thing" and "consumer" as "a user of an article or commodity, a buyer of goods and services."

1.6   Clearly, this dictionary definition is very high-level and will need to be elaborated: later in this report, we analyse in some detail the most appropriate way to define consumer detriment.

1.7   A robust understanding of consumer detriment clearly goes to the heart of good policy-making in the field of consumer protection. In order to put in place a policy framework which adequately protects consumers, it is essential to understand the various ways in which consumer interests can be harmed in the first place.

1.8   Consumer detriment is also a very relevant concept in the context of competition law, where practices are sometimes judged in light of their impact on consumers. For instance, Article 82 of the EC Treaty, which prohibits abuse of a dominant position, lists as an example of abuse "limiting production, markets or technical development *to the prejudice of consumers*" (added emphasis).

1.9   More widely, the concept of consumer detriment is potentially relevant for assessing the impact that *any* policy proposal may have on consumers. Policies whose primary purpose is not related to consumer protection (e.g. employment law) may nonetheless have effects on consumers which policy-makers may wish to take into account.

Contents and structure of this report

1.10   This document is our final report, edited, though only to a small extent, for publication. It incorporates most of the substantive material contained in an earlier interim report (not published).

1.11   Parts of this document should be read alongside the separate Ipsos-MORI documents summarising the results of the cognitive testing. The proposed survey questionnaire is also provided as a separate document.

1.12   We have also provided DG SANCO with a handbook on how to assess the impact of policy on consumer detriment, along with a number of annexes providing more detail on specific areas of policy assessment.

1.13   This report is structured into five parts, based on the five elements of the project described earlier. However, the work we have carried out does not always fit neatly under these five headings, and the contents of the report should be treated as a whole. For example, in analysing particular sources of consumer detriment within part 2 of the project, we also discuss some of the approaches that could be taken to measuring detriment arising from these sources (which relates to part 3 of the project).

1.14   A general issue which does not fit under any of the above headings is the fundamental rationale for looking specifically at impacts on consumers, rather than targeting the welfare of society as a whole (i.e. including producer welfare). This is important when thinking about the uses and limitations of estimating consumer detriment for policy-making purposes. This issue is discussed in appendix 2.

1.15   There are also a number of other appendices. Appendix 1 contains summaries of documents covered in our multi-disciplinary survey of existing research. Appendix 3 provides information on consumer bodies in EU Member States which may represent sources of data on consumer complaints. Appendix 4 contains some draft guidance on the stage 2 process for market monitoring (explained in section 17).

PART 1: MULTI-DISCIPLINARY LITERATURE REVIEW

2   OVERVIEW

2.1   Europe Economics has completed a multi-disciplinary survey of existing research relating to consumer detriment, drawing on work in the fields of economics, behavioural economics, and psychology and marketing.

2.2   The purpose of the survey was to review theoretical and empirical literature which shed light on one or more of the following:

(a)   How consumer detriment can arise and the factors that may affect its magnitude;

(b)   How consumer detriment might be measured;

(c)   How markets could be monitored for the possible presence of consumer detriment.

2.3   In many cases, the literature did not refer directly to the term "consumer detriment", but provided insights based on related concepts such as "consumer welfare" or "consumer surplus" (in the economics literature) or "consumer dissatisfaction" (in the psychology literature).

2.4   The initial list of literature in our proposal was refined, primarily by using internet research to identify other papers and by reading abstracts to select those papers which appeared most relevant.

2.5   In total, we have formally reviewed 62 documents, broken down in Table 2.1.

Table 2.1: Distribution of Papers Between Disciplines

Discipline	Number of papers reviewed
Economics	35
Behavioural economics	10
Psychology and marketing	17
Total	**62**

Note: the classification of a few of the papers was a matter of judgment.

2.6   Appendix 1 contains a summary of each of these documents (with the exception of two especially significant summaries which have been included in the main body of the report).[8]

2.7   The following two sections of this report provide a brief overview of the literature review. We have made more extensive reference to some of the findings from this literature (as well as to some other papers not covered in our formal review) in other parts of the report.

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[8]   These two papers are Peter Lunt's 2006 report for the UK Office of Fair Trading on "The Psychology of Consumer Detriment" and NERA's 2004 report on "Empirical indicators for market investigations".

3   MAINSTREAM AND BEHAVIOURAL ECONOMICS

Mainstream Economics

3.1   The 35 papers we reviewed in the field of economics can be placed into the following thematic groups:

(a)   General papers on consumer and competition policy;

(b)   Marshallian versus Hicksian measurement of welfare (explained below);

(c)   Welfare loss from market power;

(d)   Estimating consumer savings from competition policy;

(e)   Distributional effects of monopoly;

(f)   General papers on imperfect information and consumers' welfare;

(g)   Search and switching costs;

(h)   Firms' strategies to reduce price search by consumers;

(i)   Market monitoring indicators;

(j)   Other.

3.2   Below we very briefly summarise the findings of the literature review under each of these headings. A full list of references is provided at the beginning of appendix 1.

General papers on consumer and competition policy

3.3   We covered two general papers on consumer and competition policy.

3.4   Vickers (2003) discusses economics for consumer policy. He identifies a number of ways in which consumers may be adversely affected by markets, including the breakdown of efficient transactions due to asymmetric information (the "lemons" problem), markets in which a "bargain" in a first-stage market is followed by a "rip-off" in a follow-on market, and sub-optimally low quality in markets where consumers can only ascertain quality after the transaction is complete.

3.5   Waterson (2003) explores the role of consumers in competition policy. The paper discusses how search and switching costs can lead to sub-competitive outcomes by limiting the extent to which consumers search and switch supplier.

Marshallian versus Hicksian measurement of welfare

3.6   We reviewed four papers relating to a technical economic issue (discussed in the next paragraph) which arises in relation to the measurement of consumer welfare.

3.7   The use of the market demand curve (otherwise known as the Marshallian demand curve) to estimate changes in welfare can sometimes lead to poor estimates of the true welfare change. This arises from the fact that the market demand curve reflects both income and substitution effects.[9] The area to the left of this demand curve is only a good measure of welfare if the marginal utility of income is constant, which is typically not thought to be the case.[10]

3.8   The theoretically correct approach to measuring welfare is to use a Hicksian demand curve, which is based on a constant level of utility (or satisfaction). The practical problem with this is that the Hicksian demand curve cannot be observed, since in practice price changes do affect consumers' utility.

3.9   Lavergne et al (2001) set out empirical estimates showing the differences that can exist between Marshallian and Hicksian estimates of the deadweight loss from market power.

3.10   Various techniques have been suggested for producing more robust estimates of welfare changes than Marshallian consumer surplus. Hausman (1981) argues that it is possible to use econometrics to estimate the market demand curve and then (in some cases) to derive the Hicksian demand curve, from which the exact change in welfare can be estimated. Hausman and Newey (1995) show how non-parametric techniques[11] can be used to estimate exact consumer surplus and deadweight loss. Irvine and Sims (1998) suggest an alternative procedure for improving estimates based on the Slutsky compensated demand function.[12] Lavergne et al (2001) show how Hicksian demand can be computed from ordinary demand using a Taylor series expansion.[13]

Welfare loss from market power

3.11   We reviewed six papers on the loss in welfare from market power. Some of these papers were theoretical while others were empirical.

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[9]   The substitution effect is the change in consumption which results from the change in the relative price of the product. The income effect is the change in consumption due to the fact that the price change affects real incomes i.e. people become better off when the price of the product falls, and worse off when it increases.

[10]   The "marginal utility of income" refers to the additional satisfaction or benefit that individuals obtain from an increase in their income. Income is often thought to yield diminishing marginal utility i.e. as income increases, a further increase in income (of the same absolute size) yields less additional satisfaction. To give an intuitive example, we would expect a person living on a state pension to value an additional euro more than a millionaire.

[11]   Non-parametric techniques do not impose a functional form on the data, thus allowing the data to "speak for itself".

[12]   The Slutsky compensated demand function is based on adjusting the consumer's income so that he can still afford the bundle of goods bought before the price change.

[13]   A Taylor series is a series expansion of a function around a particular point.

3.12   Ho et al (2005) argue that conventional deadweight loss measures of the social cost of monopoly are inappropriate because they ignore the social cost of inducing competition (i.e. the costs of creating new firms). They argue that a more appropriate counterfactual would be a Pareto optimal state[14] which takes these costs into account, and they discuss how general equilibrium conditions could be used to solve for this state of the economy.

3.13   Vaughan (2004) constructs a framework which can be used to estimate the welfare losses generated over time by alternative market structures. For the case of monopoly, their measure of the dynamic welfare loss can be expressed as a function solely of "Tobin's q" (the ratio between the stock market value of capital assets and the cost of acquiring them).

3.14   Two of the empirical papers related to the banking industry. Fernandez de Guevara and Maudos (2004) estimate that the welfare loss from market power in the European banking industry was about 2.4 per cent of GDP in 1993, 1.9 per cent in 1997 and 2.5 per cent in 2000. Berger and Hannan (1998) present empirical analysis of the US banking industry suggesting that firms facing fewer competitive pressures may be less productively efficient, and that this leads to a welfare loss which can substantially exceed the conventional deadweight loss caused by the pricing behaviour of such firms.

3.15   Dixon et al (2001) provide empirical estimates of the welfare loss caused by the presence of market power in the Australian manufacturing sector in the period 1982/83 to 1984/85.

3.16   Dobson et al (1998) examine the welfare consequences of buyer power. They find that the exercise of buyer power creates a deadweight welfare loss where it is exercised against a competitive supply industry, whereas when the supply market is imperfectly competitive the effect may simply be to transfer producer surplus.   The paper analyses various types of strategic buyer behaviour, and examines the implications of recent retail developments such as "one-stop-shops" and "category killers" (stores which offer a wide selection of merchandise at low prices in just one or few categories).

Estimating consumer savings from competition policy

3.17   Related to the above, we reviewed four papers which seek to evaluate the benefits to consumers of competition policy.

3.18   Nelson and Sun (2002) review estimates produced by the US Federal Trade Commission (FTC) and Department of Justice (DOJ) of the consumer savings from merger enforcement. The FTC's estimates were based on the assumption that blocked mergers would have increased prices by 1 per cent for a two-year period if they had gone ahead. The DOJ's estimates, on the other hand, used oligopoly models to predict post-merger prices. Nelson and Sun identify a number of weaknesses in these methodologies, and

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14   "Pareto optimal" means that it is impossible to make someone better off without making someone else worse off (in other words,

recommend that the agencies should be more open about how their estimates had been calculated.

3.19   Crandall and Winston (2003) argue that the current (US) record on antitrust enforcement is weak, with little empirical evidence that past interventions have provided much direct benefit to consumers or significantly deterred anti-competitive behaviour.

3.20   However, Werden (2003) criticises Crandall and Winston's work for being highly selective in its review of the existing empirical evidence. Further, Werden suggests that there are serious methodological flaws in Crandall and Winston's empirical analysis of the impact of merger enforcement.

3.21   Davies and Majumdar (2002) suggest a methodology for quantifying the benefits to consumers that arise from the competition policy work of the OFT. In the case of blocked mergers, they suggest that a lower bound estimate of consumer savings can be obtained by multiplying the relevant turnover by 1 per cent.

Distributional effects of monopoly

3.22   We covered two papers by Creedy and Dixon (1998 and 1999) which suggest that the relative burden of monopoly is greater for households on low incomes than it is for high-income households. The methodology used by the authors is based on several strong assumptions. However, the papers suggest that even if these assumptions bias the absolute estimates of welfare loss, their conclusions regarding the relative burden falling on different income groups might not be affected.

General papers on imperfect information and consumers' welfare

3.23   We reviewed three papers under this heading.

3.24   Two of these were reports written for the OFT specifically on the issue of consumer detriment under conditions of imperfect information.

3.25   London Economics (1997) distinguishes between consumers' actual beliefs (A) about a product or service, the true information set (T), and the rational belief-set (R) that a fully rational consumer would or should have had available before making a purchase decision. The report suggests that there may be transient or permanent differences between these three information sets. For instance, R may differ from T due to the cost of obtaining information, and this cost may in turn depend on suppliers' decisions about what information they make available and in what way.   A may differ from R where consumers are misled by false claims or suppliers use high pressure sales tactics.

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there are no "win-win" improvements which can be made).

3.26   London Economics argues that negative consumer outcomes should only be defined as detriment where they are avoidable.

3.27   London Economics applies its framework to four markets which were investigated by the OFT or MMC,[15] and proposes six indicators which signal potentially problematic markets:

   (a)   The existence of price dispersion for seemingly similar products or services;

   (b)   The existence of focal points of competition (i.e. firms compete on just one aspect of the product);

   (c)   The bundling of primary and secondary purchase, or the existence of after-markets;

   (d)   The existence of commission payments, particularly from upstream suppliers to retailers or advisers;

   (e)   Complex goods or services; and

   (f)   Goods and services which are either purchased infrequently, or which possess credence characteristics (i.e. consumers cannot assess the quality of the product even after they have consumed it).

3.28   Hunter et al (2001) define consumer detriment as the loss in consumer surplus that arises from imperfect information (note that this does not include any reference to avoidability). They discuss imperfect information on prices and quality and, in each case, develop a model which can be used to produce empirical estimates of consumer detriment (although these models rely on a number of assumptions).

3.29   Finally, Garella and Petrakis (2005) show how mandatory minimum quality standards may (under certain assumptions) benefit both firms and consumers, by encouraging consumers to update their expectations about the quality of the good.

Search and switching costs

3.30   We reviewed five papers which fell into this category.

3.31   Klemperer (1995) provides an overview of competition when consumers have switching costs. In markets with switching costs (or brand loyalty), market share is an important determinant of future profitability. Hence, firms have to choose between setting a low price to raise market share (effectively an investment) and setting a higher price to exploit existing locked-in customers.

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[15]   Extended warranties on electrical goods, life insurance policies, photocopiers, and contact lens solutions.

3.32   Shy (2002) presents a "quick-and-easy" method of calculating consumer switching costs between brands in a given industry, based on observed prices and market shares. The article demonstrates the method by applying it to the Israeli cellular phone market and the Finnish market for bank deposits.

3.33   Carlsson and Lofgren (2004) estimate switching costs for domestic airline routes in Sweden between 1992 and 2002. In addition, they test for the determinants of switching costs. Their results suggest that switching costs are affected by (among other things) frequent flyer programmes and flag carriers.

3.34   Hortacsu and Syverson (2004) build a model of competition for S&P index funds which explains the observed price dispersion for these funds through the incorporation of product differentiation and informational search frictions. The article discusses how search/information costs can impose welfare losses on consumers, comprising both:

(a)   Direct welfare losses (i.e. money or time spent learning about the funds on offer); and

(b)   Indirect welfare losses (i.e. sub-optimal choices about which fund to invest in).

3.35   Waddams Price (2004) includes a discussion of market power and switching in the UK retail energy market. Using survey evidence on the savings that consumers would require to switch supplier, Waddams Price calculates that it was most profitable for the gas incumbent to set a price about 33 per cent above that of its competitors.

Firms' strategies to reduce price search by consumers

3.36   We reviewed two economics papers on strategies that firms may employ to reduce the extent to which consumers research and compare prices. These are closely related to two papers which we classified as marketing literature on the effect of misleading price comparisons (see later).

3.37   Ireland (2002) presents a simple model of competition based on some buyers making price comparisons between two suppliers. The article suggests that suppliers can make price comparisons more difficult by exclusive dealer agreements and restrictions, and by trading under more than one name. It further argues that prices become less competitive as price comparisons become more difficult.

3.38   Wilson (2004) presents a model in which a firm attempts to gain market power by pricing above the competitive level and simply trying to persuade ill-informed consumers not to search for other lower-priced firms (for example, by using fictitious price comparisons or false sale signs). A simplified model suggests that such behaviour could exist even in the presence of (moderately enforced) consumer regulatory policy.

Market monitoring indicators

3.39   NERA (2004) explore the possibility of using top-down empirical indicators to identify markets in which there is consumer detriment, to guide the OFT's work on market

investigations. This report is very pertinent to the part of our project which deals with market monitoring indicators, and is discussed in detail in section 17.[16]

3.40　Grout and Sonderegger (2005) draw on evidence from theoretical economic literature, empirical analysis, and a series of case studies to identify factors that may indicate a higher probability of cartel formation. They suggest that three fundamental market characteristics associated with cartel formation are a homogenous product, lack of sustained market volatility and stability among the leading players.

3.41　Lyons et al (2001) address the issue of geographical market definition when calculating indicators of industry concentration. They categorise industries as being either EU-wide or national in scope based on the level of intra-EU trade, with the trade threshold used to categorise industries in each country obtained from econometric analysis.

3.42　Klapper et al (2004) use the Amadeus database, which contains financial information on firms in Western and Central Europe, to construct an indicator of firm entry rates for different sectors of the economy.

Other

3.43　Some significant papers appear in this category.

3.44　The OFT (2000) used the results of a survey of 2,200 consumers to estimate the existing level of consumer detriment in the UK. The survey covered problems consumers had experienced in the previous year, and looked in detail at up to two problems for each consumer. The paper estimates that total consumer detriment in the UK was £8.3 billion in cash terms, corresponding to 1.1 per cent of GDP or roughly £180 per annum for every adult in the UK. If allowance is made for the distribution of income amongst UK consumers, the OFT estimates that this equated to at least £9.6 billion per annum in lost welfare.[17] The most common problem encountered by consumers was defective goods or sub-standard service, accounting for nearly half of all cases.

3.45　We are grateful to the OFT for supplying us with a copy of the survey questionnaire used in this study and with additional information about the results. Further discussion of surveys can be found in sections 13 and 15.

3.46　Hausman (1997) provides an estimate of the consumer welfare effects of regulation-induced delay in the introduction of voice message services and cellular telephone in the US. Hausman's approach involves *ex post* analysis of foregone welfare, computed by estimating a demand function and treating the regulatory delay as having an effect equivalent to setting a price which reduces demand to zero. However, Pakes (1997) identifies a number of potential problems with Hausman's approach.

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[16]　Consequently, Appendix 1 does not contain a summary of this paper.
[17]　This calculation assumed an elasticity of welfare of 1.3.

3.47   Finally, we reviewed the 2005 edition of "Consumers in Europe: Facts and Figures" published by DG SANCO, to familiarise ourselves with some of the data which are available.

Behavioural Economics

3.48   Within mainstream economics, consumers are modelled as acting in a "rational" way so as to maximise their utility given the set of choices which they face.

3.49   Behavioural economics takes insights from psychology and applies them in the context of economics. It assumes that consumers (and other economic agents) may sometimes act in a "non-rational" or "boundedly rational" way.[18]

3.50   The papers we reviewed on behavioural economics can be placed under two broad headings:

   (a) Behavioural biases and their effects on consumers;

   (b) Paternalistic policies to address behavioural biases.

Behavioural biases and their effects on consumers

3.51   Ellison (2006) provides a review of the literature which incorporates bounded rationality and behavioural economics into industrial organisation issues. Most recent papers mentioned in this review deal with the way the behaviour of rational firms may be distorted due to the presence of boundedly rational consumers.

3.52   Loewenstein and Drazen (1992) show that there are a number of anomalies (usually tested by experiments) which undermine the consistency of the discounted utility model, traditionally used in economics to represent intertemporal choices. They propose a model in which intertemporal choice is defined with respect to deviations from an anticipated status quo consumption plan.

3.53   O'Donoughe and Rabin (1999) provide a framework for the analysis of self-control proposals, in which individuals have present-biased preferences leading them to procrastinate (delay) unpleasant actions and preproperate (do too soon) pleasant ones. They also discuss the difference that it makes if individuals are sophisticated (i.e. realise they have self-control problems) rather than being naïve about how they are likely to behave in the future.

3.54   Related to the above, Della Vina and Malmendier (2003) discuss how the presence of time-inconsistent behaviour affects the behaviour of profit maximising firms.   For

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[18]   Bounded rationality is the assumption that there are limits in the extent to which agents act rationally. For instance, this may be due to limitations in their computational abilities.

investment goods with immediate costs and delayed benefits (e.g. gym subscription), firms have an incentive to charge a high upfront fee and below marginal cost per usage. This allows sophisticated consumers to commit themselves to using the good, while allowing firms to extract surplus from naïve consumers (who overestimate future usage).

3.55   Jehiel and Lilico (2002) present a different approach to analysing time-inconsistent behaviour, based on limited foresight. The paper addresses the topic of smoking, and argues that young people may start smoking because they do not look far enough ahead (and thus do not take account of the fact that smoking will become a habit). However, as they grow older people may become less affected by limited foresight, leading them to engage in efforts to quit smoking.

3.56   Heidhues and Köszegi (2004) look at the impact of consumer loss aversion on pricing. Loss aversion refers to the phenomenon that people appear to place a higher value on a loss than on an equivalent gain. They argue that this may explain price stickiness for consumer goods, the existence of countercyclical mark-ups, and temporary sales and promotions.

3.57   Gabaix and Laibson (2006) discuss how consumer myopia may explain the existence of "shrouded attributes" for some consumer goods. In particular, consumers buying certain goods (e.g. printers) may not take account of the price of add-on products (e.g. print cartridges). This may allow firms to charge high add-on prices and to conceal this information from consumers in the primary market without arousing their suspicion.

Paternalistic policies to address behavioural biases

3.58   It has been argued that behavioural biases on the part of consumers may justify paternalistic regulation to protect consumers and to help them make choices that are in their own best interest.

3.59   We reviewed three papers on this subject, two of which were broadly in favour of paternalistic regulation and one of which was opposed.

3.60   Camerer et al (2003) put forward the case for what they referred to as "asymmetric paternalism". By this, they meant policies which would benefit individuals who were non-rational or boundedly rational in their behaviour, while imposing little cost on fully rational individuals. An example of such a regulation would be giving buyers the right to rescind purchases within a given time period. This would potentially be of benefit to consumers who have made sub-optimal decisions (e.g. purchases made in the heat of the moment which are later regretted), while imposing no cost on other consumers.

3.61   Similarly, Sustein and Thaler (2003) argue that it is possible to design policies which are both paternalistic and libertarian. In particular, policy may guide non-rational or boundedly rational individuals towards making appropriate choices (e.g. by setting beneficial default options), while continuing to give individuals freedom of choice if they wish to take another course of action.

3.62   Arguments against paternalism are presented in Glaeser (2006). He presents a simple model to show that consumers face stronger incentives than government to "get things right" and to reduce the effects of cognitive errors. He also argues that firms can more easily manipulate decisions taken by a few bureaucrats than by the vast multitude of consumers.   He lists a range of arguments against "soft paternalism" (of the kind discussed above), including the argument that it can cause bad decisions as much as hard paternalism, and that is more open to abuse by authorities because it is more effective at building public support.

4   PSYCHOLOGY AND MARKETING

Professor Lunt's Literature Review for the OFT

4.1   Peter Lunt is Professor of Media and Communications at Brunel University. The OFT commissioned Peter Lunt (who at the time was working at University College, London) to carry out a conceptual review of psychology literature of relevance to consumer detriment.[19] Lunt's review covered a large amount of useful material. His bibliography contains 89 references, of which 35 date from 2000 or later, and 42 date from between 1990 and 1999.

4.2   To avoid duplication of existing research, we sought to build upon this existing study rather than repeating it. Consequently, we begin by summarising the key findings of Lunt's work in some detail below. Further, in selecting other papers for review, we have focused (for the most part) on papers which were not covered in Lunt's review for the OFT.

Overall framework

4.3   Lunt's paper is organised under seven main headings:

(a)   A better understanding of what it is about consumer transactions that can be classified as "detriment";

(b)   A classification of what causes detriment;

(c)   An analysis of which groups of people are susceptible and in what circumstances, i.e. how they may be targeted;

(d)   An analysis of the likelihood of particular types or groups of business being more likely to cause the detriment or be affected by other businesses inflicting detriment;

(e)   An assessment of how far detriment varies according to age (which will have an effect on experience, education or vulnerability), disability, what an individual can afford to lose, ability to withstand certain sales techniques or stress, and lifestyle;

(f)   An analysis of whether detriment is a problem if a complaint/ complainant is dealt with quickly and the "victim" is not left out of pocket or with damage to health;

(g)   A risk/detriment rating model – the risk of suffering some types of detriment may be high even though the impact is relatively small when the detriment occurs, whereas other types of detriment may be associated with low risk but high impact (e.g. personal injury).

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[19]   *The psychology of consumer detriment,* Dr. Peter Lunt, with Laura Miller, Johanna Körting and Joseph Ungema, University College London, published as paper OFT 792, January 2006.

4.4   Lunt writes that:

> "The concept of consumer detriment has emerged recently in the policy community and seems to be spreading rapidly through it. However, it is not a concept that has yet filtered into academic research. When we did our initial searches on the concept of 'consumer detriment' we found ourselves directed to the OFT website and other regulators around the world but the links to academic research were thin. This is probably due to the fact that concepts of 'consumer detriment' and 'psychological detriment' are not favoured in psychological and consumer psychology research." (p.4)

4.5   Lunt emphasises the distinction between financial and psychological aspects of consumer detriment. He writes:

> "There are various psychological phenomena that can reasonably be defined as detriment. In this, a clear distinction has to be drawn between financial detriment and psychological detriment…the dimensions of variability of individual and group differences in psychological detriment are far greater than is the case for financial detriment…" (pp.101/102)

4.6   He goes on to draw sharp distinctions between detriment as viewed by economists and detriment as viewed by psychologists – while not suggesting that the two approaches are irreconcilable. For example:

> "Psychological research and explanations differ from economics in important ways. There is no overarching agreement concerning theoretical framework, approach to data collection and analysis. The previous economic work on consumer detriment makes a set of normative assumptions and tests those assumptions in a model applied at the aggregate level. As a discipline psychology encompasses radically different theories and methods deployed in a variety of very different sub-disciplines (e.g. cognition, clinical psychology, social psychology). Paradigms in psychology are middle range theories tested using many small-scale empirical studies at the individual level. Consequently any phenomena, such as psychological detriment in consumption will attract a wide variety of research including qualitative studies of the experience of consumption, surveys of beliefs and attitudes, experimental studies of information processing and behavioural manipulations. Consequently, it is difficult to conceive of a unified, 'psychological' approach to the phenomena under discussion……. The range of putative variables implicated in studies of psychological detriment is rather daunting: the list includes aspects of information processing, motivation, emotional dimensions of consumer experience, aspects of personality, beliefs and behaviour." (p.7)

4.7   The distinction between how economists and psychologists view consumer detriment has important implications for the definition of the concept, as discussed further in section 5 of the report.

Consumer vulnerability

4.8   The question of which consumers or groups of consumers are especially vulnerable to detriment is an area that has been studied from both an economic and a psychological perspective.

4.9   A 1998 OFT Research Paper, *Vulnerable Consumer Groups: Quantification and Analysis*, identifies the following as possible categories of vulnerable consumers:

(a)   The unemployed;

(b)   Those suffering from long-term disability;

(c)   Those with low levels of educational attainment;

(d)   Members of ethnic minorities;

(e)   Elderly people;

(f)   The young.

4.10   These groups would be relatively easy to identify or control for in a quantitative survey such as might be undertaken to establish the prevalence of consumer detriment.

4.11   Lunt also reviewed a range of psychological factors that might be related to consumer vulnerability. He concluded that:

> "The review confirmed the identification of vulnerable groups as those with less financial resources and the elderly and suggested a psychological profile of vulnerability related to these social demographics related to short time horizons, lack of cynicism, pessimism, lack of confidence, lack of goal direction and expectations of consumption, higher preference for stability and lower choice and greater conformity, avoidant approach to stress and challenge.

> "Lower levels of social capital and support reinforce vulnerability related to these SES [social economic status] differences." (p.104)

Decision making

4.12   Lunt writes that

> "…in their decisions about consumption, people do not act 'rationally' (exhaustively searching out and considering every alternative before coming to a decision).[20] This is too daunting a task especially given the sheer volume of choices available and the limits on our time. Instead people are 'satisficers' who settle for services and products that are 'good enough'.

> "…models … portray two extreme forms of consumer behaviour: according to them, we either a) rationalise and weigh-up every decision (maximisers) or b) we take the first satisfactory choice available (satisficers)." (p.37)

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[20]   Economists do not attach this meaning to the word "rational", as discussed in section 6.

4.13   He goes on to suggest that:

> "More likely, we tend towards one or other of the styles but do not practice one completely…"

4.14   This analysis is potentially important because, in determining what constitutes consumer detriment, analysts need to determine the counterfactual. If it is consumer expectation that determines the counterfactual, then the psyche of a consumer (maximiser or satisficer, to put it in that simple binary form) may well define what his expectation is. (A counterfactual of "reasonable" expectations is less dependent on the psyche of the individual consumer, in that it incorporates an external view of what is reasonable.)

4.15   Lunt mentions Schwartz (2004) as identifying important dimensions of psychological detriment that are associated with maximisers:

(a)   Maximisers do not get as much pleasure from positive events;

(b)   Maximisers do not cope with negative events as well as satisficers;

(c)   Maximisers are slower to recover their sense of well-being after negative events;

(d)   Maximisers tend to brood or ruminate on negative outcomes.

4.16   Compared to satisficers, maximisers:

(a)   Are more inclined to regret choices;

(b)   Have lower life satisfaction;

(c)   Give lower happiness ratings;

(d)   Are more pessimistic;

(e)   Get higher depression scores.

4.17   These characteristics may all affect consumers' propensity to feel they have suffered detriment and to do something about it.

Satisfaction and dissatisfaction

4.18   Lunt addresses three aspects of consumer behaviour: satisfaction, dissatisfaction, and complaining.

4.19   He goes on to say:

> "However, there is broad consensus at a general level that consumer satisfaction:
>
>   • is a response (emotional or cognitive), varying in intensity

> • that pertains to a particular focus (expectations, product, consumption experience, etc.)
>
> • and occurs at a particular time (after consumption, after choice, based on accumulated experience, etc)." (p.43)

4.20   He identifies consumer satisfaction as a potential measure of consumer detriment:

> "Consumer satisfaction has been intensively researched in consumer psychology and marketing research. It appears a potentially useful candidate as a measure of consumer detriment." (p. 106)

4.21   The issue of whether consumer detriment is simply the inverse of consumer satisfaction is discussed later in the report, in the context of our discussion of possible definitions.

4.22   Interestingly, Lunt draws a distinction between consumer satisfaction in relation to goods and consumer satisfaction in relation to services. He points to an increasing standard of quality and reliability in goods, not matched in services, and refers to East (1997), who suggested that the differences might arise because of:

(a)   The concept of 100 per cent reliability developed by NASA and applied to production of consumer goods (but not services);

(b)   The impact of Japanese goods and production methods;

(c)   New technologies (e.g. computing and robotics);

(d)   The growing relative importance of services over goods;

(e)   The development of total quality management in production and service delivery.

4.23   This distinction may have relevance to our analysis as to where the greatest sources of consumer detriment might lie, and where the Commission might wish to focus its resources.

4.24   The concept of consumer satisfaction or dissatisfaction leads on directly to issues of consumer complaints.

Complaints

4.25   There is already copious literature variously suggesting that consumer complaints are either very valuable as a pointer to consumer detriment or well-nigh useless and potentially misleading. Lunt's analysis certainly counsels caution:

> "The literature on consumer psychology suggests that people are frequently unhappy with the quality of products or services, but 'live with' low levels of dissatisfaction rather than seeking to fix the problem. Evidence suggests that perceptions influence feelings (and the growth) of dissatisfaction. These are, in part, a product of raised expectations: complaints are not necessarily based on a realistic appraisal of faults." (p.55)

"Lack of feedback is a concern for other reasons: often linked to consumer vulnerability, the failure to complain means that certain groups are not represented in feedback to producers, so they have an unbalanced view of the market. To deal with this, some have tried to find ways of increasing participation in the feedback process (i.e., customer satisfaction surveys); their intention is to develop a more symmetric view of consumer perspectives. Such strategies are borne out of increased awareness that some customers don't simply switch brands when they're dissatisfied, they become passive, just living with dissatisfaction rather than participating in consumption." (p.55)

4.26   Lunt acknowledges that it is difficult to define "detriment" in relation to a gap between levels of dissatisfaction and levels of complaint.

"Since there is a putative link to the level of disconfirmation as a source of dissatisfaction and complaining then the simple conclusion might be to say that the complaint process successfully filters out trivial or unimportant problems and focuses on the most informative information about serious product or service failures. However, there are a number of potential problems with relying on complaints as indicators of psychological detriment in consumption.

• High incidence of low levels of dissatisfaction will not be recorded.

• Unequal distribution of complaining across social groups means that certain preferences will not feed into product and service improvement.

• There are increasing attempts to manage complaints by making it easier for consumers to report problems with goods and services and to speed up the quality of response which aim to reduce complaints – which means a reduction in complaints."
(p. 64)

4.27   If one is trying to map consumer complaint onto consumer detriment, Lunt offers compelling argument that levels of complaint alone can be misleading. *A priori* one would need to consider the propensity of given groups or classes of consumer to complain at all, to consider whether the product or service under examination was more likely to be bought by people more likely to complain, and to consider the counterfactual of expectations, reasonable or otherwise.

Emotions and consumer detriment

4.28   Lunt records that

"…positive emotions can lead to detriment as a result of their impact on information processing and commitment before and during the point of sale. Negative emotions are easier to understand and define in the context of consumer detriment. However, even these are not straightforward because the relationship between problems in consumption and emotional states are highly contingent on circumstances, individual differences and other psychological resources available to the consumer." (p.65)

4.29   The distinction between emotion and mood is generally understood to be a function of intensity, time, and focus, where emotion is more intense, shorter-lived and more focused than mood.

Longer term psychological detriment

4.30   Lunt suggests that psychological detriment can be long-term if repeated short-term detriments occur, whether dealt with to the consumer's satisfaction or not.

4.31   Drawing on the work of Mitchell (2004) and others he mentions (on page 82) three different types of consumer confusion that have been proposed:

"Brand similarity confusion, which the authors define as 'A lack of understanding and potential alteration of a consumer's choice or an incorrect brand evaluation caused by the perceived physical similarity of products or services.'

"Confusion from information overload, which they define as 'A lack of understanding caused by the consumer being confronted with an overly information rich environment than cannot be processed in the time available to fully understand, and be confident in, the purchase environment.'

"Unclarity confusion, which they define as 'A lack of understanding during which consumers are forced to re-evaluate and revise current beliefs or assumptions about products or purchasing environment.'"

4.32   Lunt also refers to the concept of "learned helplesseness" (page 85), which may give rise to repeated patterns of inertia or inactivity. The Theory of Learned Helplessness was developed by Abramson, Seligman and Teasdale (1978), who suggested that people who employ a negative attributional style are more likely to experience a sense of hopelessness when faced with stressful circumstances. Negative attributional style refers to individual differences in explaining positive and negative events and has three dimensions:

(a)   Who is to blame? (self/others);

(b)   Perceived stability/instability of the problem;

(c)   The perceived universality of the problem (is it global or local?).

4.33   The theory is that someone who is self-blaming or believes that a problem is stable and universal is more likely to have negative emotional responses to stressful life events which will influence their coping style (they will tend towards avoidance or emotional coping). This leads to feelings of vulnerability that will increase with future stressful events if the same attributions are maintained.

4.34   Lunt summarises by saying:

"…confusion around consumption has been exacerbated by the increasing complexity of consumption. There are individual differences amongst consumers regarding the ways

that they cope with fear and uncertainty. However, part of the problem in understanding psychological deficit and its origins is that emotions are difficult to define and measure. Nor is there adequate research into the long-term effect of psychological detriment, although psychological theory has been used in this section to identify the ways in which negative styles of coping with adversity can lead to the accumulation of psychological detriment.

However, the increased sophistication of the market has resulted in the ubiquity of complexity in consumption. The more sociological research cited towards the end of this chapter highlights the role of education and status in being able to respond to the risks inherent in consumption. This ties in with psychological research into the fear of crime, which highlights how it is an adaptive behaviour in the face of serious threats to personal integrity. Finally, the notion of psychological detriment can be understood to be existential: in being unable to make positive choices, people's self-esteem wanes and so a cycle of negative expectations and consequences develops." (pp. 99/100)

Other Papers

4.35   We reviewed 15 other papers in the field of psychology and marketing, along with the transcripts of a conference on consumer detriment which Professor Lunt organised for the OFT. For ease of discussion, we have placed these documents into the following groups:

   (a)   Consumer satisfaction / dissatisfaction;

   (b)   Misleading price comparisons;

   (c)   Bait and switch; and

   (d)   Other.

4.36   These groups are discussed in turn below.

Consumer satisfaction / dissatisfaction

4.37   We reviewed three papers on this subject.

4.38   INRA and Deloitte (2005) is a study for DG SANCO on indicators of consumer satisfaction. The report sets out a methodology for constructing consumer satisfaction indicators in the EU in relation to postal services, mobile telephone, fixed telephone, air transport, retail banking and insurance. A pilot survey was carried out to test the proposed approach.

4.39   We have subsequently been provided with a copy of the draft final report of the consumer satisfaction survey carried out by IPSOS INRA, which represents the implementation of the above methodology. This report is reviewed in some detail in section 15, where we consider its implications for our own survey methodology.

4.40   Singh (1991) analyses the relationship between different industry characteristics and consumer dissatisfaction. The article suggests that markets which are more competitive

may exhibit higher levels of complaints but lower switching. However, the author uses a limited sample of only three industries (grocery, medical care and auto repair).

4.41   The issue of how consumers react to dissatisfaction is also examined by Warland et al (1975). They find that a significant number of consumers who are upset by the treatment they receive do nothing about it, and that this is particularly the case among those consumers who are less well-to-do and less-educated. This has important implications for how representative complaint data are of the true level and distribution of consumer detriment.

Misleading price comparisons

4.42   We covered two papers on the effect that misleading price comparisons may have on consumers.

4.43   A report by Nottingham University Business School (2005) for the OFT explores how consumers are affected by misleading price comparisons and the potential for this to result in consumer detriment. The report finds that even consumers who are sceptical of an advertised reference price can be influenced by it, though they may discount its value. Detriment can occur as a result of consumers reducing search, thus allowing firms to charge higher prices.

4.44   Similarly, Urbany (1988) presents data from a shopping simulation exercise which suggest that an exaggerated reference price increases the percentage of people who purchase the product without checking other stores' prices.

Bait and switch

4.45   We reviewed three (related) papers which discuss the effect of a marketing technique known as "bait and switch", which involves advertising low prices on selected brands, under-stocking them, and then attempting to persuade consumers to substitute more expensive substitute brands in-store. This practice is banned by the US Federal Trade Commission (FTC).

4.46   Hess and Gerstner (1990) present a model of bait and switch in which consumers benefit from this practice because price competition is enhanced and consumers gain utility from in-store promotions. Hence, the authors argue that the FTC should investigate further its ban on bait and switch. The model relies on a number of assumptions, including the assumption that consumers foresee stock outages of advertised brands.

4.47   Wilkie et al (1998) provide a critique of Hess and Gerstner's model, and conclude that bait and switch practices harm consumers and should not be legalised. They argue that the increase in consumer welfare found by Hess and Gerstner results from salespersons' explaining the features of substitute products (upselling) and not from the fact that stores are out of stock.

4.48   In a reply to Wilkie et al, Hess and Gerstner (1998) defend their earlier conclusion and argue that a law prohibiting bait and switch in a competitive market can reduce consumer welfare but never increase it. They argue that consumers are protected from any adverse effects arising from bait and switch by competition, which they argue will drive down prices of the advertised products and will ensure that the gains from informative upselling go to consumers.

Other

4.49   The "other" category contains a number of interesting papers on various aspects of psychology and marketing.

4.50   FDS International (2006), in a report compiled for the OFT, present the findings of focus group research on consumer detriment.   Participants discussed their own experiences of poor products and services, and were asked about their attitudes to a range of hypothetical situations in which detriment had occurred.

4.51   In 2005, the OFT held a conference (organised by Professor Lunt) on the psychological and sociological aspects of consumer detriment. We reviewed the transcripts of this conference, which were given to us by the OFT. Below we very briefly describe each speaker's presentation.

    (a)   Peter Lunt argued that there are a broad range of psychological phenomena that are related to consumer detriment, but that the psychology literature generally did not consider these in a way which was useful from a regulatory perspective.

    (b)   [✂] posited that consumers:

        −   value products only in relation to reference points;

        −   make use of simple heuristics to evaluate products;

        −   may not describe accurately their true decision-making process; and

        −   display time-inconsistent preferences;

    (c)   [✂] argued that various problems may arise in relation to consumer credit and payment protection insurance due to insufficient consumer awareness of the financial implications of their decisions and of the small print of terms and conditions;

    (d)   [✂] suggested that consumer detriment may arise due to information asymmetry or irrational consumer behaviour and in "no fault" situations where consumers' choices have unfortunate consequences. He went on to discuss debt and how it affects different types of consumers;

(e) [✂] suggested that consumer vulnerability could be related to disabilities (e.g. visual impairment), and that information overload could cause detriment by confusing consumers and reducing their confidence in the market;

(f) [✂] discussed how firms' attempts to satisfy consumers may reduce detriment, but identified ways in which firms could use marketing to exploit more vulnerable consumer groups;

(g) [✂] considered the value to firms of different types of customer (e.g. volatile customers who are thinking of switching relative to the average customer). He mentioned that firms can seek to raise switching costs by bundling products or introducing loyalty programmes;

(h) [✂] discussed how a small percentage of the population ("shopaholics") have a compulsive consumption profile;

(i) [✂] discussed consumer complaint behaviour, and also noted that there are ways in which retailers can affect the sales volume of a specific product (e.g. through space allocation);

(j) [✂] argued that elderly consumers may suffer consumer detriment due to lack of access;

(k) [✂] discussed the increasing time pressures that individuals face and the implications that this may have for consumption.

4.52 The OFT (2004) discusses the psychology of buying and selling in the home. The report discusses six psychological tools that sales people use to influence consumers. It further suggests that because the home is a more emotional environment, there is an increased chance that purchases will be overpriced, unsuitable and later regretted. The report concludes that "avoiding any discussion of the price" was the strongest predictor of a negative consumer experience in this environment.

4.53 Hann et al (2005) discuss the issue of consumer privacy and marketing avoidance. They suggest that consumers' attempts to conceal themselves from marketing will increase its cost-effectiveness (because those consumers left unconcealed are more likely to be interested in buying), thus leading sellers to market more. They state that there may be a need for public policy to deal with the negative externalities created by marketing.

4.54 In an FTC working paper, Murphy examines consumer perceptions of qualified health claims in advertising. He finds that consumers take very different messages from the same advert. Hence, he suggests that it may not be possible to advertise emerging scientific evidence without giving a large number of consumers the wrong impression on the level of certainty.

4.55   Gielissen et al investigate factors that influence judgments about whether prices are "fair". The research finds that people view prices or price increases as relatively more fair when they:

(a)   Equate with reference prices;[21]

(b)   Are due to a cost increase;

(c)   Are for social motives;

(d)   Are in the respondent's self-interest; or

(e)   Help relatively small or poor agents.

4.56   The OECD (1999) discusses online advertising and marketing directed toward children. The report mentions that children may be particularly vulnerable to online data collection practices that can be used by advertisers and marketers, and are unlikely to be aware of the amount or potential use of the information they give away.

4.57   A policy statement by the FTC (1990) states that when considering whether a commercial practice is unfair the FTC will consider whether it:

(a)   Injures consumers;

(b)   Violates established policy;

(c)   Is unethical or unscrupulous.

4.58   In relation to the concept of "consumer injury", the FTC applies a three stage test:

(a)   It must be substantial;

(b)   It must not be outweighed by any countervailing benefits;

(c)   Consumers must not reasonably be able to avoid the injury.

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[21]   A reference price is the price that a consumer uses to compare the offered price of a product or service. This could be a price in the consumer's memory or the price of an alternative product.

PART 2: DEFINITION OF THE CONCEPT

5 OUR PROPOSED DEFINITIONS

Definitions of the Concept Found in the Literature

5.1 There is no universally accepted definition of the term "consumer detriment" in the literature. Below we illustrate this finding with reference to some of the articles we have reviewed.

5.2 The Office of Fair Trading (OFT) has done or commissioned a number of studies on consumer detriment, some of which have attempted to define the term.

5.3 Early OFT definitions tended to focus on the loss of consumer welfare due to information problems. For example, a 1997 paper written by London Economics for the OFT stated that:[22]

> "Consumer detriment can be identified as the loss to consumers from making misinformed or uninformed choices. … however, … not every case of choice made with less than the maximum information potentially available constitutes a detrimental choice"

5.4 As discussed earlier, the paper goes on to distinguish between consumers' actual beliefs, the beliefs they would have after a rational search procedure, and the true distribution of potential outcomes.

5.5 The OFT restated this definition in a 2000 report on consumer detriment:[23]

> "[London Economics' paper] identified consumer detriment with the difference between the outcome that consumers experience with the available information and the outcome that they experience with the further information they could usefully obtain and assimilate, perhaps by additional shopping around. This difference was, however, to be measured after deducting the cost of obtaining and assimilating the additional information, specifying the additional information that could be usefully acquired. Such costs were to be considered alongside alternative distribution channels and other structural changes."

5.6 Hunter et al (2001) took the following approach, again in a report written for the OFT:[24]

> "We define as consumer detriment … the loss in consumer surplus that consumers experience due to the presence of imperfect information."

5.7 Although this definition again focused on information problems, it differed from the earlier definition in that it included *all* information imperfections, whether or not gaining additional information would represent a rational search procedure.

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[22] London Economics, "Consumer detriment under conditions of imperfect information", Report prepared for OFT, 1997.
[23] OFT, "Consumer detriment", 2000.
[24] Hunter, J., Ioannidis, C., Iossa, E. and Skerrat, L., "Measuring consumer detriment under conditions of imperfect information", Report prepared for the OFT, 2001.

5.8   More recent OFT work has taken a very different approach to defining the concept, by focusing on a broad range of negative outcomes that consumers may experience.

5.9   At an academic conference on consumer detriment held in 2005 and organised by the OFT, Lunt suggested the following definition of consumer detriment:[25]

> "Negative psychological, social and financial effects associated with consumer behaviour."

5.10   FDS International was commissioned by the OFT to carry out focus group research on consumer detriment.[26]   Its report gave the following answer to the question "What is consumer detriment?":

> "At its broadest level detriment may arise from any instance:
>
> • where a customer suffers as a result of their dealings with an organisation
>
> • **and**, where that suffering is partly or wholly the result of the organisation accidentally or deliberately treating the customer unfairly"

5.11   There is some other literature which uses the term "consumer detriment" without any attempt to give the term a formal definition (although it is sometimes possible to infer an implicit definition).

5.12   More widely, there is a large amount of relevant literature which does not use the term "consumer detriment" at all, instead phrasing the discussion in terms of related concepts such as "consumer welfare", "consumer surplus" or "consumer dissatisfaction".

Our Two Definitions of "Consumer Detriment"

5.13   Based on the literature review and our own analysis, we suggest that definitions of consumer detriment can be placed into two broad categories. These are as follows:

(a)   A concept of consumer detriment which focuses on negative outcomes for consumers, relative to some benchmark such as expectations or reasonable expectations. We label this **personal detriment** to reflect the fact that it relates to the personal experience of those consumers for whom something goes wrong, rather than to consumers in aggregate.   The label also captures the idea that some aspects of this type of detriment (e.g. the extent of any negative psychological impact) will depend on the psychology of the person concerned. (There may nonetheless be

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[25]   Professor Lunt was the lead author of a report for the OFT on psychological issues relating to consumer detriment (see Lunt, P., Miller, L., Körting, J. and Ungemah, J., "The psychology of consumer detriment", Report prepared for the OFT, 2006). However, the definition he suggested at this conference did not appear in this report.

[26]   FDS International, "Focus group research on consumer detriment", Report prepared for the OFT, 2006.

societal or group influences which are relevant to this type of detriment, and a group of consumers could each experience personal detriment due to the same cause.)

(b) An economics-based concept of consumer detriment, which focuses on the loss consumer welfare due to market failure or regulatory failure. We suggest that this should be labelled **structural detriment**, to reflect the fact that it arises from a structural problem arising from a market failure or a regulation. One of the implications of the fact that this type of detriment arises from a structural feature which potentially applies across an entire market or sector is that its impact is likely to be felt by the generality of consumers purchasing the relevant goods or services.

5.14 These two complementary definitions are related to the fact that economists and psychologists view consumer detriment in different ways, as identified by Lunt (see paragraph 4.6). Whereas economics can provide an analytical framework capable of being applied at an aggregate level, Lunt stated that "paradigms in psychology are middle range theories tested using many small-scale empirical studies at the individual level." Hence, psychological aspects of detriment are best analysed in terms of the personal experience of individual consumers, rather than for consumers as a whole.[27]

5.15 Economists typically measure consumer welfare by focusing on a concept called "consumer surplus", which is the difference between what a consumer would have been willing to pay for a product and what he actually paid. For instance, a consumer who would have been willing to pay €50 for a product or service but only had to pay €15 is said to gain consumer surplus of €35. Structural detriment can therefore be restated as the *loss of consumer surplus* due to market failure or regulatory failure.

5.16 Within each of these two categories, there are many possible variations of definition that could be put forward. For example, the early OFT definitions which focused on imperfect information come within the broad category of "structural detriment", but focus on only one particular type of market failure. Likewise, the definition quoted above from the FDS International report falls within the category of "personal detriment", but adds the qualification that the suffering must result from unfair treatment by the organisation.

5.17 It is useful to recognise the existence of these two categories, because the two types of concept are inherently measuring different things. In particular:

(a) Structural detriment looks at the welfare of consumers in aggregate, whereas personal detriment only takes account of those consumers who experience a negative outcome relative to (say) reasonable expectations, thus ignoring any offsetting benefits for consumers who experience a positive outcome;

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[27] This does not mean that structural detriment does not factor in psychological factors. As discussed in section 6, it can be argued that structural detriment incorporates the *risk* that something may go wrong with a purchase so as to cause negative psychological impacts.

(b) Structural detriment focuses on whether a market is working well when consumers make their decisions, whereas personal detriment is based on *ex post* outcomes. Hence, in the case of consumption decisions where *ex ante* there is an element of risk or uncertainty, differences between the two types of detriment could arise simply due to the fact that outcomes include a random component.

5.18   The difference between the two can be illustrated with an example. Suppose there is a market in which the product is inherently risky, such that 95 per cent of the time the outcome will be beneficial for the consumer and 5 per cent of the time it will be detrimental. For example, we might think of a healthcare treatment which leads to side-effects in a minority of cases. Provided consumers are fully informed about the risks, it could be argued that there is no structural detriment, because there is no market failure. However, there might (arguably) be personal detriment for the minority of consumers for whom the downside risk materialises.[28]

5.19   As discussed later, we suggest that both types of definition are potentially useful to policy-makers, but for different purposes.

5.20   An important issue in the definition and estimation of consumer detriment is the choice of counterfactual or benchmark against which to compare. This is reflected in Europe Economics' terms of reference, which state that "The Contractor should establish sound operational benchmarks, against which either actual market situations or the impacts of regulatory decisions may in practice be compared."

5.21   At a conceptual level, the appropriate counterfactual is relatively straightforward when assessing the impact of policy measures. In the case of an *ex ante* impact assessment, the relevant counterfactual is simply *what would happen in the absence of the proposed policy*. Similarly, in the case of an *ex post* evaluation, the relevant counterfactual is *what would have happened in the absence of the policy being evaluated*. In either case, we are simply interested in comparing consumer outcomes or welfare with and without the policy.

5.22   The choice of counterfactual is less obvious when we wish to measure *the existing level* of consumer detriment in a market or across the economy. In this case, we need to define a hypothetical benchmark against which to compare the actual market situation (see later).

5.23   In the following sub-sections, we first compare the two definitions of consumer detriment and then discuss each one in more detail.

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[28]   We discuss later in this section how risk might be analysed within a framework of personal detriment.

Comparison of the Definitions

5.24   What are the key linkages and differences between our two definitions of consumer detriment?

5.25   The overarching linkage between the two concepts is that they both provide a measure of harm to consumers, and are both therefore relevant when thinking about the promotion of consumer interests.

5.26   On the other hand, an obvious difference between the two definitions is that personal detriment is defined at the level of the individual consumer, whereas structural detriment is defined primarily at an aggregate level.

5.27   However, this difference should not be over-stated, because it is possible to aggregate personal detriment. For example, suppose 1,000 consumers each experienced personal detriment which took the form of a financial loss of €100. It this case, it would be perfectly valid to say that "consumers suffered personal detriment which totalled €100,000."

5.28   Similarly, structural detriment can in theory be analysed at the level of individual consumers. For instance, suppose that prices in a certain market are higher than they would otherwise be due to the presence of market power (a type of market failure, as discussed in section 8). There is no inherent reason why one cannot examine the loss of welfare experienced by an individual consumer due to these higher prices.

5.29   Hence, it is important to recognise that the two definitions are not just different in scope, but rather that they relate to different concepts. In other words, although structural detriment will normally affect a group of consumers, *it is not simply the aggregation of personal detriment experienced by those consumers*.

5.30   This is illustrated in Figures 5.1 and 5.2, which show a situation in which consumers are misled by sellers, such that they (reasonably) expect that the product in question will perform better than it actually does. Consequently, consumers place a higher value on the product than they otherwise would (shown by the upward shift in the demand curve), with the result that they buy more of the product (Q2 rather than Q1).[29] What is the personal and structural detriment implied by this scenario?

5.31   The personal detriment (aggregated across individuals) is given by the difference between the value that consumers reasonably expected to get from the product and the value that they actually get from it. Since demand curves show how much consumers are willing to pay for any given quantity of a product (and thus the value that they place on the

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[29]   Note that this example is used simply for the sake of illustrating the difference between our two definitions, and is not intended to represent a robust economic analysis of the effect of information problems. In practice, where consumers know that they cannot trust sellers the effect may sometimes be to reduce their willingness to pay and their participation in the market. Further discussion of the effects of information problems can be found in section 8 of the report.

product), personal detriment is therefore the area between the two demand curves, shaded grey in Figure 5.1.[30]

Figure 5.1: Personal Detriment, Aggregated across Individuals
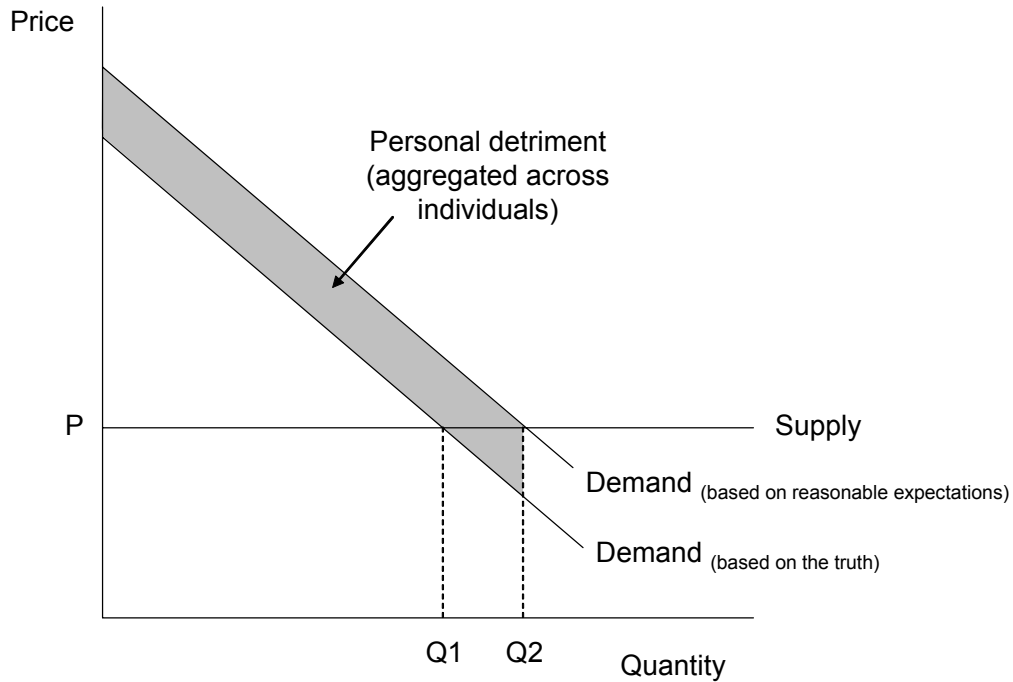
5.32   By contrast, structural detriment is given by the loss in consumer welfare (measured by consumer surplus) arising from the market failure implied by sellers' ability to mislead consumers. Although at first sight it may not seem intuitive, this is actually given by the triangle shaded grey in Figure 5.2.

5.33   The rationale for this is given in the two diagrams shown in Figure 5.3.   Without the market imperfection, consumer surplus would be given by the shaded triangle labelled A. The effect of the market imperfection is that consumers over-purchase the product: they buy Q2 rather than Q1. The price that consumers pay for these additional units of the product is greater than the value that they would place on them if they had been truthfully informed about the characteristics of the product. Remembering that consumer surplus is the difference between a consumer's willingness to pay and the actual price paid, this implies that the shaded triangle labelled B is "negative" consumer surplus (i.e. consumers are paying more than their true willingness to pay). Hence, triangle B represents the loss of consumer surplus due to the market failure, which by definition is structural detriment.

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[30]   This ignores the fact that demand curves show *ex ante* willingness to pay whereas personal detriment focuses on *ex post* outcomes. Hence, strictly speaking this statement is only true in cases where there is no risk or uncertainty involved in the purchase, such that there is no difference between *ex ante* and *ex post* analysis.

Figure 5.2: Structural Detriment
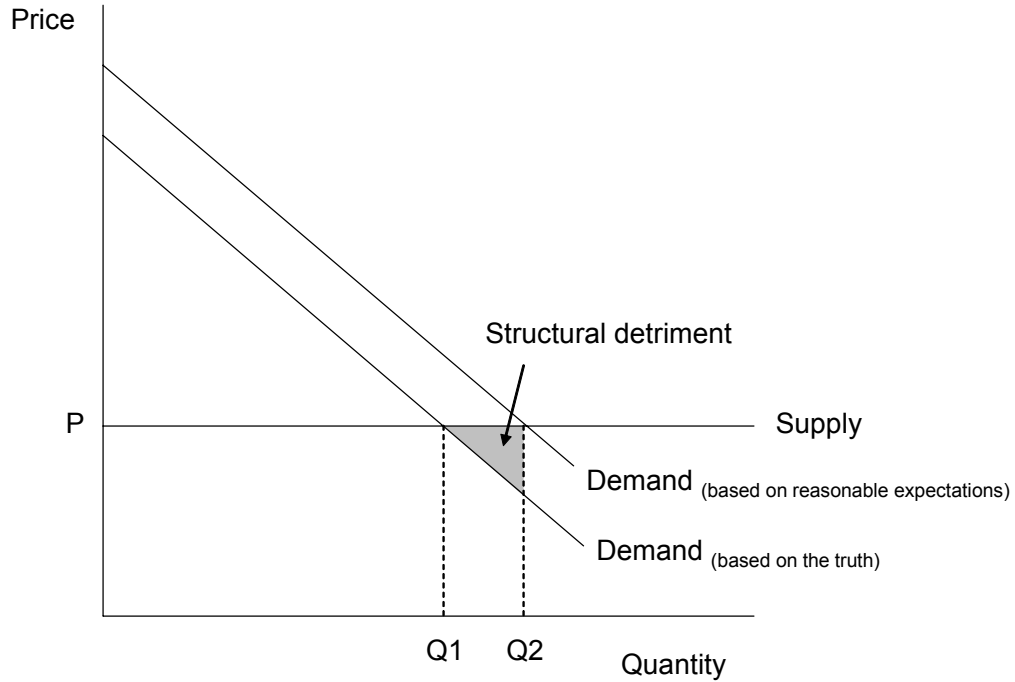
Figure 5.3: Explanation of Structural Detriment
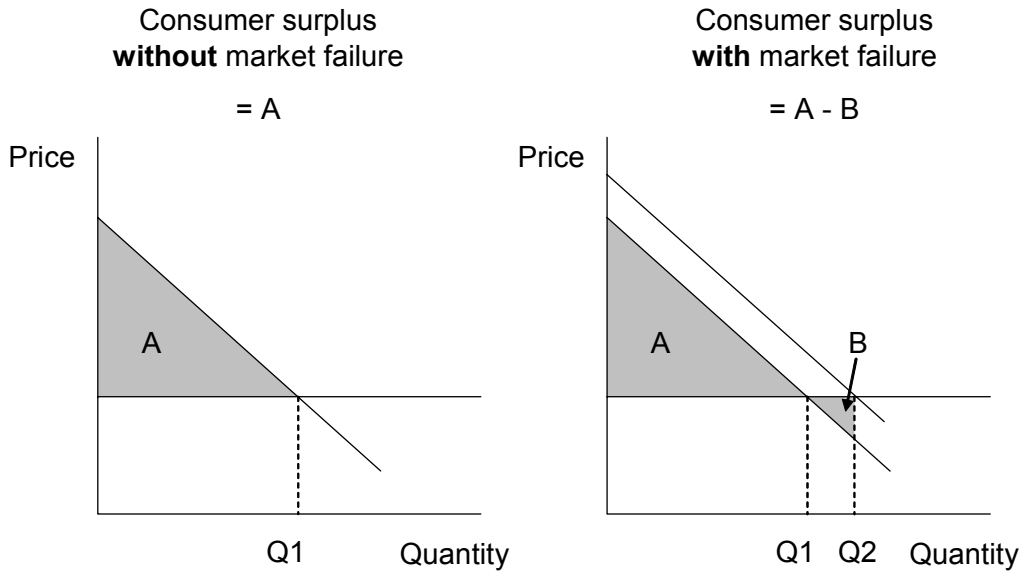
5.34   By comparing the above diagrams, it can be seen that much of the area representing aggregated personal detriment does not (in this instance) represent structural detriment. Why is this? The answer is that most of the additional welfare that consumers (reasonably) expected due to what they were told by sellers – and which therefore

represented personal detriment when it did not materialise – was not welfare which they would actually have obtained in the absence of the market failure. (Instead, if they had been fully informed about the product they would simply have bought less of it.) Hence, this welfare which consumers reasonably but mistakenly expected cannot be described as "lost welfare due to market failure", and hence is not included within structural detriment.

5.35   In light of the above, the key difference between personal and structural detriment is not so much the level at which detriment is analysed (i.e. individual versus aggregate), but rather the difference in what "counts" as detriment, given the counterfactual against which outcomes are being compared. In the case of personal detriment, the counterfactual is (reasonable) expectations, and so anything that falls short of what consumers (reasonably) expected given the circumstances of the transaction counts as detriment. By contrast, structural detriment focuses on welfare loss due to market or regulatory failure, and hence the relevant comparison is not with (reasonable) expectations but rather with what would have happened in the absence of market or regulatory failure.

5.36   In our view, this difference between the two concepts is one of the strengths of adopting two complementary definitions, because it means that legitimate consumer problems which are not captured under one definition can be captured under the other.

5.37   This can be illustrated with reference to the example of consumers being charged higher prices as a result of market power. Provided that consumers have been informed of these prices, they would (reasonably) expect to pay them if they purchase the product. Indeed, in cases of market power consumers may not even be aware that prices are higher than the competitive level. Hence, if consumer detriment were defined solely in terms of personal detriment, an important source of harm to consumers would not be captured. However, this problem is resolved by our two definitions, because higher prices due to market power would unambiguously be captured under structural detriment (since they represent a loss of consumer welfare due to a market failure).

5.38   We now proceed to discuss each of the definitions in more detail. We include discussion of their practical application and how policy-makers might decide which one should be employed in any given policy context.

Personal Detriment

General discussion

5.39   In many ways, personal detriment appears closest to what a layman might think of as "consumer detriment". By contrast, structural detriment would probably seem less intuitive to a layman, because consumer surplus is probably not a widely-understood concept outside the field of economics.

5.40   Personal detriment might also seem the more relevant way of defining consumer detriment to organisations such as the following:

(a) *Public bodies dealing with consumer complaints.* Such bodies deal regularly with individual consumers who complain after having experienced a negative outcome.

(b) *Lawyers specialising in consumer or contract law.* Legal disputes following consumer transactions which have gone wrong will again tend to focus on individuals (or groups of individuals) who have experienced negative outcomes.

(c) *Companies.* Companies may often be interested in taking action to prevent their customers experiencing detriment, in order to encourage repeat purchases and build a brand reputation. In doing so, they are likely to focus on reducing the risk that their customers may experience negative outcomes.

Aspects of personal detriment

5.41 There are a variety of things which could constitute a "negative outcome" for a consumer (e.g. financial loss, inconvenience, loss of time, stress, low quality products, reduced real choice). It is helpful to categorise these by breaking personal detriment down into *financial detriment* and *non-financial detriment*.

5.42 An important element of non-financial detriment is *psychological detriment* (i.e. negative psychological effects such as feelings of anger, worry or regret). We analyse this type of detriment in more detail later in the report.

5.43 One of the advantages of adopting the two definitions of consumer detriment (i.e. personal and structural) alongside each other is that the concept of personal detriment allows scope for analysis of psychological detriment in its own right. By contrast, a single economics-based definition of consumer detriment defined in relation to consumer surplus would leave less scope for analysis of psychological impacts. Section 7 includes further analysis of psychological aspects of personal detriment.

Supplier wrong-doing

5.44 An interesting issue when thinking about the precise definition of personal detriment is whether it should be defined so as to include only detriment which results from wrong-doing or poor performance on the part of the supplier.

5.45 A restrictive way of doing this would be to draw up a list of specific business practices which were deemed unfair (e.g. those listed in Annex 1 to the Unfair Commercial Practices Directive),[31] and define personal consumer detriment as any negative outcome which results from these practices. However, such an approach would become circular if the Commission were to wish to use research into consumer detriment to identify commercial practices which it wished to tackle in future legislation.

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[31] See http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/ce304/ce30420051201en03660368.pdf

5.46   However, it would be possible to alter the definition in a less restrictive way to include the idea of supplier wrong-doing. For example, the definition could be changed to "negative outcomes for individual consumers, relative to reasonable expectations, in which the firm is at fault."[32]

5.47   The disadvantage of an alternative definition along these lines is that policy-makers may sometimes wish to take action to tackle negative consumer outcomes which are not caused by blameworthy behaviour on the part of individual suppliers. For instance, negative outcomes may be caused by mistakes made by consumers themselves (see section 10 on behavioural biases).

Societal or group influences

5.48   Despite our proposed use of "personal detriment" as a label, there may be societal or group influences which are relevant when analysing this type of detriment. For instance, cultural norms may affect what is regarded as constituting a "reasonable" expectation in any given situation. This could be particularly important in the EU, where there may be systematic differences in experiences and attitudes between old and new Member States. Likewise, whether outcomes are regarded as negative, and the perceived magnitude of any negative impact, may be affected by societal or group factors (e.g. something going wrong publicly may have greater negative psychological effects in societies where it is considered shameful to "lose face").

5.49   In section 7 of the report we consider how these social influences may come into play, drawing (for instance) on findings from the field of social psychology.

Redress

5.50   An interesting issue is whether personal detriment should be estimated pre- or post-redress, in cases where consumers have complained about negative outcomes and received redress from the company concerned.

5.51   The answer probably depends on the use to which policy-makers wish to put the estimates. Policy-makers may be interested both in knowing the extent of the original problems which consumers experienced, and the effectiveness of redress obtainable within the current legal framework.

Counterfactual

5.52   Earlier, when we introduced the concept of personal detriment, we suggested that it might be estimated relative to a benchmark such as expectations or reasonable expectations.

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[32]   There may be some tautology in this definition, in that if the firm is at fault it seems likely that the consumers' reasonable expectations have not been met. Hence, the definition could (arguably) be reduced to "Negative outcomes for individual consumers in which the firm is at fault."

5.53   At first sight, it might seem that psychological aspects of personal detriment could be defined simply as "negative psychological outcomes experienced by individual consumers" i.e. without any explicit reference to a counterfactual. However, this would implicitly be comparing the actual situation with a counterfactual of "no negative psychological outcomes." This counterfactual could be criticised on at least two grounds:

(a)   There may be products where some negative psychological outcomes might reasonably be expected. For example, a consumer might buy a second-hand car knowing that it suffered from a fault. In such cases, it is debatable whether any frustration or stress which arises when the fault occurs should be included within our definition of detriment.

(b)   In other cases, psychological detriment might arguably take the form of positive emotions not being as great as the consumer might reasonably have expected. For example, suppose a firm advertises a leisure activity in a way which exaggerates how enjoyable consumers are likely to find it. In this case, would consumers be suffering detriment if they enjoyed it to some extent, but not as much as they had been led to expect?

5.54   An explicit definition of the counterfactual is unavoidable for some other aspects of personal detriment, such as loss of the consumer's money or time. We would need to know what expenditure of time or money the consumer expected (or should reasonably have expected) in relation to the product, in order to know how much money or time has been "lost" due to the occurrence of a negative outcome.

Expectations versus reasonable expectations

5.55   Should the counterfactual for personal detriment be based on consumers' actual expectations, or on some notion of what constitutes "reasonable" expectations?

5.56   If the benchmark is simply expectations, then our definition of personal detriment becomes almost identical to widely-accepted definitions of consumer dissatisfaction. For instance, INRA and Deloitte (2005) define consumer satisfaction and dissatisfaction as follows:

"A widely accepted definition of 'satisfaction' is:

"'*Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, included levels of under-or-over fulfillment.'* (Oliver, 1997)

"In less technical terms: satisfaction is the consumer's assessment of a product or service in terms of the extent to which that product or service has met his/her needs or expectations. Failure to meet needs and expectations is assumed to result in dissatisfaction with the product or service." (p. 10)

5.57   We give further background on the subject of consumer satisfaction, and the psychological and marketing research which has been done in this area, in section 7 of the report.

5.58   However, in the context of the current study, the use of "expectations" as a counterfactual may lead to undesirable cross-sectional effects due to differences in expectations between different groups of consumers. For example:

(a) Consumers in new Member States may have lower expectations than those in the EU-15, and hence may appear to suffer lower detriment even if, objectively measured, consumer outcomes are actually worse.

(b) Within any country there may also be vulnerable groups who have low expectations (e.g. minorities who have come to expect some level of discrimination). Measuring detriment relative to their expectations would tend to understate the negative outcomes experienced by such groups.

(c) On the other side, there may be certain types of consumers who have unreasonably high expectations (e.g. over-optimistic or demanding consumers). In this instance, defining and measuring detriment relative to expectations could encourage an inappropriate policy focus on the welfare of these consumers, since they might appear to be suffering the most detriment.

5.59   For these reasons, we suggest that it is preferable to define personal detriment relative to some notion of "reasonable" expectations.

5.60   The difference that this might sometimes make can be illustrated with reference to a (slightly humorous) example. Suppose a naïve consumer spends €10 on what turns out to be a lottery scam, and is led to believe that he has won a prize of €50 million. In due course, the consumer discovers that he has lost his €10 and that the prize is not going to materialize. Compared with his expectations, the consumer has suffered detriment of €50 million (less €10), whereas compared with reasonable expectations he has only suffered detriment of €10.

5.61   However, adopting a benchmark of reasonable expectations raises the question as to what constitutes "reasonable".

5.62   In one sense, what is "reasonable" is inherently a matter of judgment and will depend on the specific circumstances of any individual transaction. For instance, in order to know whether the money a consumer spends maintaining a product represents personal detriment, we would need to know what the consumer might reasonably have expected to spend on maintenance. It is clearly impossible for anyone to provide this information without going into the specifics of the product in question!

5.63   However, it *is* possible to set out some general principles to guide such judgments, and hence we discuss a range of issues relating to this counterfactual below. We finish the

discussion by setting out some practical proposals as to how policy-makers can apply this counterfactual in real-life policy contexts.

Reasonable expectations in the presence of risk and uncertainty

5.64　An important issue concerns the treatment of transactions where *ex ante* the consumer accepts a degree of risk or uncertainty. For example, we might consider the purchase of "quality seconds" (goods which are sold to consumers, usually at a discount price, with a disclaimer that they have failed quality controls). There are at least two approaches that could be adopted for dealing with transactions like this which are characterised by risk:

(a)　We could define reasonable expectations as the expected value of outcomes (i.e. the sum of each possible outcome multiplied by its probability). For the sake of illustration, suppose there are known probabilities of 0.5 that a product will provide the consumer with benefits worth €100 and 0.5 that it will break within a short period and only yield benefits worth €10. In this case, the expected value of benefits is €55.[33] If the product does fail, the estimated level of personal detriment relative to this counterfactual would be €45.[34]

(b)　We could define reasonable expectations as any outcome which falls within the range of possibilities which the consumer could reasonably have expected at the time of purchase. In practice, this would mean that a negative outcome would only "count" as personal detriment if it was *worse than the most negative outcome which the consumer could reasonably have expected*. In the above example, for instance, personal detriment would be zero so long as the consumer receives benefits worth at least €10.

5.65　In our view, there are problems with both of these alternatives.

5.66　In relation to the first one, it is not clear how meaningful it is to compare each individual outcome against expected values when the market as a whole is considered. If many transactions take place, and in each instance the consumer accepts an element of risk, it is unclear why it should be considered "unreasonable" for at least a proportion of consumers to experience a negative outcome. This approach would have the perverse effect of leading to high estimates of personal detriment for some markets simply due to the existence of risk and uncertainty, even where consumers were fully aware of the risks and were willing to accept them (perhaps in return for paying a lower price).

5.67　On the other hand, comparing each individual outcome against the worst outcome that might reasonably have been expected could mean that genuine examples of consumer detriment might not be picked up. For instance, consider a firm whose advertising gives

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[33]　= (0.5 x €100) + (0.5 x €10)
[34]　= €55 - €10

the impression that the product works (say) 90 per cent of the time, but includes a disclaimer stating that the product does not work in a minority of cases. In this instance, the possibility that the product might not work is within the range of possible outcomes that each individual consumer might reasonably expect. Now, suppose that the firm's advertising is misleading and in fact the product does not work 50 per cent of the time. This would not be picked up in any estimate of personal detriment, because *in any individual case* the negative outcome was within the range of reasonable expectations.

5.68   Of these two alternatives for defining reasonable expectations in the presence of known risks, we provisionally suggest that the second is the better way forward. This is because, where outcomes are worse that the most negative outcome that could reasonably have been expected, there is a clear-cut case for saying that the consumer has suffered detriment. Indeed, it would be possible to envisage a definition along these lines being a helpful way of defining consumer detriment for the purpose of legal disputes between consumers and suppliers.

5.69   Nonetheless, the above discussion illustrates the fact that personal detriment is not ideally suited to analysing risky transactions, where consumers are fully able to take on board those risks in making their *ex ante* decisions. There are two ways in which this drawback can be addressed:

(a)   By focusing on structural detriment rather than personal detriment, when analysing markets characterised by significant risk (see our later discussion of structural detriment);

(b)   By analysing personal detriment at a more aggregate level rather than at the level of individual transactions.

5.70   The second solution involves comparing the incidence of negative outcomes across all consumers who have bought the product with what consumers were led to expect regarding the riskiness of the transaction. For example, suppose a law firm were to attract litigation work with the claim that "50 per cent of clients who hire us win their case." If all the policy-maker knew was that a particular customer of this firm had lost their case, he would not have sufficient information to know whether or not this claim was true, and hence would not be able to determine whether the customer's reasonable expectations had been met. However, if he collected data on the experiences of all of the firm's customers and found that only 10 per cent won their case, then he would have evidence that customers' reasonable expectations were not being met and hence that consumers were suffering personal detriment.[35]

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[35]   A complication here is that there may be some products where the risk is systematic (i.e. correlated across consumers). For instance, consumers investing in financial products may all be exposed to movements in the stock market, and hence the fact that all customers experience a negative outcome would not necessarily imply (in this instance) that their reasonable expectations had

Reasonable expectations in the presence of imperfect information

5.71   We now move on to consider what might constitute reasonable expectations in cases where consumers have incomplete information about the good or service which they are purchasing. At a theoretical level, there are at least three options for defining "reasonable" expectations in such circumstances. These are:

(a)   What the consumer might reasonably have expected given his *actual* information set.

(b)   What the consumer might reasonably have expected had he engaged in a *rational search procedure*. This would involve thinking about what information a consumer might reasonably have been expected to gather, and what expectations he would reasonably have formed on the basis of that information.

(c)   What the consumer would reasonably have expected if he had (and could absorb) *full information* about the product.

5.72   The first definition has drawbacks because it would allow consumers to claim that they had suffered detriment (e.g. when making a complaint) even when they had manifestly not "bothered" to obtain information about the product which was easily accessible. To illustrate the point, if a consumer has an allergy to a particular food ingredient, it would seem inappropriate to say that he has suffered detriment in cases where he experiences an allergic reaction as a result of not checking the list of ingredients before purchasing and consuming food items.

5.73   The third of these options is even more unattractive, because it would mean that negative consumer experiences which happen as a result of sellers hiding information or misleading consumers would not count as detriment (because consumers might reasonably have expected such outcomes if they had had full information).

5.74   Hence, the second option seems the most attractive of the three on theoretical grounds. (Of course, practical considerations are important as well, and we discuss later how a counterfactual of reasonable expectations can be applied in practice.)

Reasonable expectations when sellers are dishonest

5.75   As discussed in section 7 of the report, there are a variety of methods that sellers can use to try to exploit consumer vulnerabilities. This may be offset by the development of "consumer literacy" – referring to the way in which consumers may develop an ability to understand advertising techniques and marketing practices.

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not been met. In these cases, there would appear to be no alternative but to employ expert judgment to arrive at a view as to whether consumers were adequately informed about the risks at the time of purchase.

5.76   This raises the question of what constitutes reasonable expectations in situations in which dishonest sellers provide misleading information to consumers but there are reasons for consumers to suspect the honesty of the seller.   In such circumstances, would it be appropriate to argue that consumers should reasonably expect problems if they go ahead with the transaction?   Or should one argue that consumers can reasonably expect to be told only the truth?

5.77   At first glance, the latter option might seem appealing in terms of natural justice, since it would mean that all cases in which consumers are misled and do not receive what they are promised would fall within our definition of consumer detriment.

5.78   However, the drawbacks of this stance can be illustrated with reference to our earlier example of a consumer who falls victim to a lottery scam and mistakenly believes that he has won €50 million.   Even if the consumer was definitely told by the fraudster that he had won this sum of money, it could seriously distort estimates of consumer detriment if policy-makers were to record a financial loss of €50 million in such cases.

5.79   In light of this, there are arguments in favour of taking account of suspicions which the consumer might reasonably have had when deciding what constitutes reasonable expectations in any given case.

5.80   However, the obvious concern with this is that it might exclude some cases of negative consumer experiences (i.e. where consumers might reasonably have suspected that the seller was dishonest).   In order to mitigate this problem, we would put forward the following suggestions:

(a)   The characteristics of the consumer should be taken into account in deciding what suspicions the consumer might reasonably have had regarding the seller. For instance, if the consumer is a young child, then we might expect him to be less able to discern the persuasive intent of advertising (as discussed in the second case study in section 7 of the report).

(b)   More generally, where the grounds for reasonable suspicion were so strong that the consumer should not have gone ahead with the transaction, the counterfactual should be defined as the situation the consumer would be in if the transaction had not taken place (and *not* as the negative outcome which he should have expected from the transaction). This would mean that the negative outcomes experienced by such consumers would still be captured within the definition of detriment, but would be assessed relative to a benchmark of "no transaction" rather than relative to the (unrealistic) outcome which the consumer expected.

Reasonable expectations in the presence of wider market problems

5.81   A further issue in deciding what constitutes "reasonable" expectations concerns situations in which there are market-wide problems – for example, due to the existence of market power.   In this case, outcomes relating to each individual transaction might be "reasonable" compared with the terms of the transaction, but the terms which were on

offer to consumers in the first place might be considered "unreasonable". An example of this would be a consumer who has no choice but to buy from a monopolist charging an excessively high price.

5.82   A possible approach would be to define reasonable expectations as being what consumers might reasonably expect from a competitive or well-functioning market.

5.83   However, this would make the concept of personal detriment much more complex and difficult to use. This is because it would no longer be possible to analyse personal detriment simply by looking at the terms and outcomes of individual transactions – instead, it would become necessary to carry out a wider economic analysis of whether the market was working well.

5.84   Our initial view is that personal detriment is best defined at "transaction level". In other words, it should be seen as providing information on the extent to which consumers experience negative outcomes compared to what they might reasonably have expected given the terms of their transactions.[36] We suggest that loss of consumer welfare arising from wider market problems is better dealt with using the concept of structural detriment.

Assessing reasonable expectations in practice

5.85   So far, we have discussed what "reasonable expectations" might be interpreted to mean at a theoretical level. However, this proposed counterfactual is only useful if it can be applied in practice by policy-makers. How, then, can policy-makers assess reasonable expectations in practice?

5.86   In responding to this question, it is helpful to distinguish between three different contexts in which the definition of consumer detriment might be applied. These are:

(a)   *Addressing individual cases of consumer detriment.* When *enforcing* consumer protection law (e.g. responding to complaints, pursuing legal cases), public bodies will necessarily have to deal with individual cases of detriment.

(b)   *Estimating existing consumer detriment to identify priorities for policy action.* For instance, estimates of personal detriment broken down by sector might be used to identify those sectors where consumers may require greater protection.

(c)   *Estimating the impact of policy on consumer detriment,* either for the purpose of an *ex ante* impact assessment or for an *ex post* evaluation.

5.87   Addressing individual cases of consumer detriment is inherently a case-specific exercise, and hence application of the proposed counterfactual simply becomes a matter of

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[36]   As discussed earlier, in the case of risky transactions aggregate-level analysis may be required in order to determine whether consumers' reasonable expectations have been met.

(trained) staff reaching a judgment about what the consumer should reasonably have expected in the circumstances. Indeed, in this context we suggest that it is particularly important to focus on "reasonable expectations" rather than just "expectations" – it would not seem appropriate to provide greater redress or compensation to some consumers simply because they had unreasonable expectations. The principles discussed above could provide helpful guidelines for staff in reaching a judgment on whether complaints are reasonable, and even in deciding what redress or compensation a consumer deserves (e.g. when claiming for damages in a court case).

5.88   By contrast, estimating the existing level of detriment across a sector or the economy is a broader exercise which does not allow for case-by-case assessment of what is reasonable. Hence, we propose the following methodologies for applying the proposed counterfactual in this context:

(a)   *Using expectations as a proxy for reasonable expectations.* For example, if a survey is carried out on a random sample of consumers, it could be argued that some of those consumers may have unreasonably high expectations (and thus claim to have suffered detriment when they have not) whereas others might have unreasonably low expectations (and thus fail to declare genuine cases of detriment). Hence, it could be argued that on average these two effects may cancel out across the sample as a whole. However, this approach does have some limitations when doing cross-sectional analysis of how detriment varies across different groups of consumers, because there may be a systematic tendency for some groups to have unreasonably high or low expectations.

(b)   *Including control questions in a survey to identify which respondents have high/low expectations as consumers.* This is a more sophisticated approach designed to allow for more robust cross-sectional analysis. An example of a control question (discussed later in this section) would be to ask consumers how risky they perceived the transaction to be when they decided to go ahead with it. Respondents could also be asked more generally about their attitudes to consumption and to complaining (see the discussion in section 7 regarding the role of attitudes and individual differences in consumer behaviour).[37] The answers to these control questions could then be used to interpret responses to the rest of the survey. For example, if survey respondents in Eastern Europe reported low levels of detriment but the control questions found that they generally had low expectations as consumers, then the implication would be that consumer detriment in Eastern Europe had been under-reported.

5.89   The above methodologies could also be applied in the context of *ex ante* or *ex post* policy assessments (e.g. in collecting data on personal detriment before and after the

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[37]   It would be important to phrase such questions carefully to elicit truthful answers, since if one of the available responses is obviously unreasonable then few respondents are likely to choose it.

introduction of the policy, or in experiments to test the potential effects of proposed regulations).

5.90   Finally, in conducting qualitative analysis of policy impacts, it is likely that desk officers (or assisting experts, such as psychologists) would naturally analyse consumer behaviour and experiences in terms of reasonable (rather than unreasonable) expectations.

Policy usefulness

5.91   We believe that personal detriment is a useful concept for policy-makers. At a basic level, protecting consumers against personal detriment could be seen simply as a matter of "consumer fairness".   Moreover, protecting consumers in this way may also help to provide them with greater assurance, thus encouraging participation in the market and potentially improving market outcomes. For example, consumers may be more willing to switch to new suppliers (with beneficial effects on the intensity of competition) if they feel reassured that they have some level of protection against negative outcomes.

5.92   While the potential for competitive markets to provide consumer benefits is widely recognised, it is worth noting that competitive markets can only function properly if certain conditions are in place. In particular, for well-functioning markets to exist there needs to be a legal framework in place which provides for:

(a)   *Property rights*. Mutually-beneficial trades can only take place if economic agents have ownership rights over the goods and services which they wish to trade.

(b)   *Enforceable contract rights*. Economic agents must be able to enforce contracts in order to be able to engage in meaningful transactions.

(c)   *A medium of exchange*. In the absence of a medium of exchange (e.g. money), trade would be limited to bartering (which requires a coincidence of wants).

5.93   The provision of such a legal framework can be seen as a public good, and hence something which is unambiguously the responsibility of government.

5.94   We suggest that one interpretation of consumer protection law (or at least some aspects of consumer protection law) is that it allows consumers to strike implicit "contracts" which are then enforceable, thus helping to provide the legal framework for a well-functioning market. For example, when a consumer buys a good, this could be viewed as an implicit contract that the supplier will provide him a product which works properly.   Consumer protection law allows the consumer to enforce this contract if the supplier gives him a faulty product, by allowing him to demand a replacement or refund. Similarly, laws to protect consumers against scams or deceptive behaviour could be viewed as prohibiting firms from offering dishonest or misleading "contracts" which they do not intend to fulfil.

5.95   The concept of personal detriment may also be useful in thinking about policy proposals which seek to protect consumers from making mistakes which lead to serious and undesirable consequences for themselves or others. If consumers were rational and fully

informed, and never made errors in implementing their choices,[38] then such policies would be unnecessary (since consumers would not make such mistakes). However, where these conditions do not hold, and where the consequences of mistakes are serious, then action to protect consumers may be justified. Examples of this would include product safety regulations (to protect consumers from injury or even death) and bans on the sale of certain addictive drugs (to protect consumers from addiction).

5.96   At a high level, therefore, the concept of personal consumer detriment seems particularly relevant to policy proposals which seek to:

(a) Provide the framework for well-functioning markets;

(b) Protect against negative outcomes which are so severe that society is unwilling that anyone should be exposed to them (e.g. injury/death from faulty products).

5.97   In practical terms, this means that the concept of personal detriment is particularly well-suited for analysing cases of consumer abuse. For instance, the Commission might analyse the following types of problem in terms of personal detriment:

(a) Scams and fraud;

(b) Mis-selling or other "unfair" sales practices;

(c) Sales of unsafe or addictive products;

(d) Sellers providing inadequate redress in response to complaints.

Limitations

5.98   While the concept of personal detriment is potentially useful to policy-makers, it is important to be aware of its limitations.

Drawbacks when applied to products involving risk and uncertainty

5.99   A crucial point is that policy-makers would be ill-advised to try to protect consumers from negative outcomes which result from risks which consumers *both knowingly and competently* agree to bear at the time of purchase.[39] Perhaps counter-intuitively, such policy intervention is likely to *reduce* consumer welfare.

5.100 For instance, consider a policy aimed at preventing the sale of low quality products, in a market in which consumers do not suffer from information problems.   Let us make the

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[38]   Reinhard Selton introduced the concept of "trembling hands" into game theory. This takes into account the possibility that players may sometimes choose unintended strategies through a "slip of the hand", or tremble, although with a small probability.

reasonable assumption that there is a trade-off between price and quality. In the absence of any policy restriction, each consumer would choose their preferred level of quality/price given this trade-off. However, after introduction of the policy, some consumers may find that they are no longer able to buy their preferred lower-quality product and instead have to pay more for a higher-quality version.

5.101 Another example would be a policy which gave consumers rights to obtain a refund if a product fails, for an extended period of time after purchase. Again, let us make the reasonable assumption that such additional protection is reflected in a higher price at the time of purchase. It can be argued that if consumers had wanted to pay extra for such additional protection, they would have been able to do so in the absence of the policy (e.g. by purchasing an extended warranty, or by buying from a firm which sells higher-priced but more reliable products). Hence, the policy could arguably have the effect of forcing consumers to pay for protection which they do not really want.

5.102 These problems with the concept of personal detriment are, however, potentially addressed by adopting "reasonable expectations" as the benchmark. As discussed above, in cases where the consumer has knowingly and competently accepted risk at the time of purchase, it would reasonably be expected that he *might* suffer negative outcomes.

5.103 In practical terms, how might a policy-maker determine whether consumers have knowingly and competently accepted risk?

5.104 Collecting information on whether the consumer knew about the risk would appear relatively straightforward. For example, a survey of consumer detriment might include a question as to how risky the consumer perceived the purchase to be at the time when he decided to go ahead with it (although we note that such a question would need to be carefully worded to encourage truthful answers).

5.105 Assessing whether the consumer "competently" took on the risk would appear to be more difficult. However, one approach would be to collect data on demographic variables which may be linked to vulnerability (see the review of Lunt (2005) in section 4 and the discussion of consumer vulnerability in section 7). This would allow analysis of whether the consumer belongs to a vulnerable group, such that they may have had difficulty understanding the risk. For instance, children are unlikely to understand the health implications of information about the nutritional content of "unhealthy" foods (as discussed in the second case study in section 7). Similarly, consumers with a low level of educational attainment are less likely to understand the risks associated with complex financial products.

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[39] If either the consumer does not know about the risk (i.e. there are information problems), or the consumer knows about the risk but is not able to factor it into his decision-making in a competent way (e.g. due to cognitive limitations), then there may be a policy case for intervention, subject to analysis of the benefits and costs of policy action.

Offsetting benefits to other consumers

5.106   Another limitation of personal detriment is that it focuses on the problems experienced by consumers who suffer negative outcomes, without taking into account any offsetting benefits accruing to those who experience positive outcomes. This has a number of adverse implications.

5.107   First, it reduces the extent to which measures of the existing level of personal detriment provide a reliable indication of the possible need for policy action. For instance:

(a)   Markets in which outcomes are particularly variable (e.g. there is a greater likelihood of outcomes being either very negative or very positive) will appear to be more of a problem, even if on average consumers are no worse off in this market;

(b)   More generally, the problems faced by consumers overall may be over-stated, possibly encouraging policy-makers to devote too much resource to the issue of tackling consumer detriment.

5.108   Second, it means that an assessment of the impact of a policy on personal detriment will often not be enough on its own to decide whether a policy proposal should be pursued, even if the policy-maker cares only about consumers.[40] For instance, suppose the Commission were considering a proposal to ban a certain type of product, and were to estimate that this would reduce personal consumer detriment across the EU by an estimated €1 billion. Despite this assessment, the policy might still be harmful to consumers overall if it meant that other consumers no longer experienced positive outcomes to the value of €2 billion.

5.109   Hence, we suggest that an assessment of the impact of policy proposals on personal detriment will often need to be supplemented by an assessment of the impact on structural detriment (discussed later).

Other limitations

5.110   A further limitation of taking policy action on the basis of personal consumer detriment is the potential effect on consumers' own actions in the marketplace. For example, if consumers know that they will be protected against negative outcomes in the event that something goes wrong, they will have less incentive to evaluate product offerings carefully before purchasing.[41] We suggest that these effects need to be taken into account in policy-making.

5.111   Finally, as discussed earlier, the concept of personal detriment is most easily applied where a transaction has actually taken place. This allows a judgment to be formed on

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[40]   See Appendix 2 for a discussion of the arguments in favour of looking at impacts on both producers and consumers.
[41]   This is the idea behind the doctrine of *caveat emptor* (the Latin phrase for "Let the buyer beware").

what might reasonably have been expected given the nature and terms of the transaction, and hence on whether or not the consumer has experienced negative outcomes relative to such expectations.

5.112   Therefore, it is less easy to apply the concept of personal detriment where consumers lose out as a consequence of transactions not taking place due to some market imperfection or regulatory failure. For example, when a monopolist sets prices above the competitive level, some consumers may decide not to buy the product at the higher price. Economic theory also suggests that information asymmetries can sometimes lead to the collapse of entire markets. In such cases, analysing personal detriment is difficult because it is not obvious what "reasonable expectations" means where there has been no transaction.

5.113   By contrast, it is more straightforward to analyse the negative impact on consumers using the concept of structural consumer detriment, as significant economic analysis has been done on the loss of consumer welfare or total welfare[42] which may result from such problems.

Structural Detriment

General discussion

5.114   Alongside personal detriment, we suggest that the concept of structural detriment is also useful to policy-makers.

5.115   An economist analysing harm or detriment to consumers would typically think in terms of the loss of consumer welfare, which as discussed earlier is often measured in terms of consumer surplus.

5.116   Our earlier definition of structural detriment referred to consumer welfare losses arising from "market or regulatory failure." Both market failure and regulatory failure are broad categories which cover a number of different types of problem (see sections 8 and 9). Together, they would appear to capture all potential sources of consumer welfare loss discussed within mainstream economics.

5.117   However, what about consumer welfare loss arising from non-rational or boundedly rational behaviour? Behavioural economics suggests that such behaviour may sometimes lead to outcomes which are not optimal for consumers.

5.118   In some cases, behavioural biases can themselves lead to market failures (e.g. a bias in favour of the status quo may reduce consumers' willingness to switch and allow firms to

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[42]   Total welfare includes producer welfare as well as consumer welfare. See discussion in Appendix 2.

exercise market power). Clearly, welfare losses resulting from such market failures would be included within our definition.

5.119 Behavioural biases may also lead to welfare losses directly, as consumers may make decisions which are not in their own best interests. We suggest that this type of consumer detriment is best analysed using the concept of personal detriment, as set out in our draft handbook on assessing policy impacts.

Counterfactual

5.120 The definition of structural detriment discussed earlier did not include a formal statement as to what counterfactual should be used. However, if structural detriment is taken to include all loss of consumer welfare due to market or regulatory failure, then implicitly this assumes a counterfactual in which there is no market or regulatory failure.

5.121 This discussion examines some of the issues surrounding the counterfactual for structural detriment, and what alternatives may be possible to the above.

5.122 What does our choice of counterfactual have to achieve in order to be useful to policy-makers? One possible answer is that, in an ideal world, it would isolate as far as possible that element of consumer welfare loss which is amenable to policy action, so as to maximise the usefulness to policy-makers of estimates of the existing level of detriment. Another answer would be that the counterfactual must be objective and measurable, so as to form an unambiguous benchmark against which to estimate detriment. As discussed below, there is probably a conflict between these two objectives.

5.123 Let us consider three possible alternatives for the counterfactual:

(a) Perfect competition;

(b) Some notion of a "well-functioning market" which falls short of perfect competition;

(c) Some view regarding the best outcome for consumers which is actually achievable (which will fall short of a "well-functioning market" in cases where there is a serious market imperfection which is not amenable to policy action).

A counterfactual based on the best achievable outcome

5.124 We begin by discussing the third of the above alternatives.

5.125 In our view, while this counterfactual would (by definition) meet the objective of isolating that element of consumer detriment which policy-makers can actually do something about, there are likely to be serious problems with it in practice.

5.126 Consider how policy-makers might wish to use the concept of consumer detriment. First of all, they may wish to understand more about the existing level and pattern of consumer detriment, in order to work out where consumers are suffering problems and thus identify

priorities for policy action. Having identified the key areas to focus on, they could then carry out more detailed work to develop policy options and to assess their impact on consumer detriment.

5.127 A significant drawback of the third counterfactual now becomes apparent, as the policy-maker would only be in a position to know the extent to which policy can reduce consumer detriment *at the end of the process* described above.

5.128 If the counterfactual were to depend on the scope for policy to improve outcomes, then policy evaluation work would be required in order to produce estimates of the existing level of detriment. This would mean that estimates of detriment could not be used to guide the policy-maker in deciding where to carry out policy evaluation work – such work would now be required across the board. Estimates would probably become resource intensive to produce, as well as becoming more subjective due to uncertainty about the precise impact of policy. There would also be a danger that consumer detriment which could not be tackled with current policy instruments would not be identified, which might in turn mean that policy-makers missed opportunities to develop new policy approaches to tackle these residual consumer problems.

5.129 Having established the drawbacks of the third option, let us consider the other two counterfactuals (perfect competition and a "well-functioning market").

A counterfactual based on perfect competition

5.130 *Perfect competition* is an economic model which is based on the following assumptions:

(a) The product being traded is homogenous;

(b) Buyers and sellers have perfect information;

(c) There are many buyers and sellers;

(d) There are no barriers to entry or exit;

(e) Buyers and sellers are price-takers (i.e. they are too small to influence price and simply have to accept the prevailing market price).

5.131 Perfect competition is of interest to economists because (under certain conditions) perfectly competitive markets will lead to Pareto-efficient outcomes, in which no one can be made better off without someone else being made worse off.

5.132 However, the assumptions underlying perfect competition are very restrictive. While there may be some markets which exhibit these characteristics (e.g. leading stock exchanges or commodity markets), the model can be criticised as being unrealistic for many real-world markets.

5.133   On the other hand, a possible advantage of perfect competition as a benchmark is that it is arguably an unambiguous counterfactual, thus meeting the criterion discussed earlier of forming an objective benchmark against which to measure.   (Some caveats to this statement are discussed later.)

5.134   If perfect competition were to be adopted as the benchmark, it would be important to recognise that some level of consumer detriment was inevitable (given that it is not possible to move to a world in which all markets are perfectly competitive). This would not necessarily be a problem: perfect competition could simply be viewed as a useful benchmark for measuring existing detriment, with the issue of avoidability being a matter for subsequent policy analysis.

5.135   An analogy with the Herfindahl-Hirschman Index (HHI), used to measure market concentration, may be helpful here. The HHI is calculated by summing the squares of the percentage market shares of each firm in a market, and must by definition lie in the range zero to 10,000. In order for the HHI to tend towards zero, the market shares of each firm would also have to tend towards zero. In other words, an HHI score of close to zero would imply a very large number of very small firms – effectively, a situation of perfect competition. Hence, it could be argued that perfect competition is implicitly being used as a benchmark when calculating HHI values.

5.136   However, when the HHI is used for competition law purposes, it is accepted that most markets will have an HHI value which is above zero. Indeed, the U.S. Department of Justice merger guidelines suggest that an HHI value of anywhere below 1,000 indicates that the market is not concentrated (with a value between 1,000 and 1,800 indicating moderate concentration and a value above 1,800 indicating high concentration). This illustrates that it is possible to use perfect competition as a benchmark while recognising that it is not necessarily an achievable outcome.

5.137   That said, the degree to which consumer detriment is avoidable is likely to differ between markets, which means that sectoral estimates of consumer detriment relative to a benchmark of perfect competition would not by on their own allow policy-makers to identify the sectors where policy can achieve the greatest benefits for consumers.

5.138   A more fundamental problem with this benchmark is that there are certain circumstances in which perfect competition would not lead to an optimal outcome, even if it were feasible. In particular:

(a)   Consumers may value product diversity, and hence there may sometimes be welfare gains arising from the fact that the product is *not* homogenous;

(b)   The assumption of perfect information is problematic in the context of innovation, if it is taken to imply that any new knowledge immediately becomes known to all market participants. This would remove the incentive for R&D and innovation as the innovating firm would not retain any of the benefit, thus leading to a dynamic loss of welfare.

(c)   In cases where there are substantial economies of scale, it may not be optimal for there to be many sellers. Indeed, there are some industries (e.g. utility networks) where the costs of duplication which would arise with more than one firm mean that the industry is a natural monopoly.

5.139   A practical implication is that there might be situations in which there is low or even negative consumer detriment relative to a benchmark of perfect competition, even though there may be scope for policy action to improve outcomes for consumers. For instance, consider a market in which consumers benefit from product variety but are disadvantaged by the exercise of market power. If these two welfare effects are of equal magnitude, then there is arguably no (net) consumer detriment relative to the counterfactual of perfect competition. However, it might nonetheless be possible for policy-makers to increase consumer welfare by taking action to address the market power problem.

5.140   In markets where there is scope for product diversification, one possibility would be to use monopolistic competition as the counterfactual. Monopolistic competition assumes that there are a large number of firms, each producing a differentiated product and hence facing a sloping demand curve (rather than a horizontal demand curve as in the case of perfect competition). The model assumes there is freedom of entry and consequently firms cannot make super-normal profits in equilibrium.

5.141   However, as discussed in section 8, it has been shown that product variety under monopolistic competition may be either higher or lower than the socially optimal level. Hence, monopolistic competition does not form an optimal benchmark against which to compare, and the above problem (of potentially failing to spot situations in which consumer welfare might be increased) could still apply.

A counterfactual based on well-functioning markets

5.142   What about using a "well-functioning market" as the counterfactual? In one sense, this seems an attractive option because it appears more realistic than comparing against perfect competition.

5.143   The drawback of adopting this counterfactual is that there is an element of judgment (and hence subjectivity) in deciding what constitutes a well-functioning market in any specific case. For example, consider a market in which there are search costs due to imperfect information.   Presumably, it is not necessary for a "well-functioning market" that consumers have perfect information or zero search costs, but simply that search costs are not so high as to have the effect of undermining competition. In practice, however, the strength of competition may well fall in a continuous way as search costs increase, in which case there may be no obvious, objective answer as to the maximum level of search costs which is consistent with a "well functioning market".   Consequently, the counterfactual may be difficult to define in some cases at a practical level.

5.144   Overall, this discussion suggests that there is no perfect candidate for use as a counterfactual in estimating the existing level of structural detriment. In general, though, it

may be best to adopt a relatively unambiguously counterfactual for measurement purposes, while accepting that it may not be possible to achieve zero consumer detriment relative to this benchmark.

5.145   In section 12, we explain why we believe that in estimating the existing level of detriment policy-makers should focus on personal detriment, with structural detriment playing a greater role in the assessment of policy proposals.   One of the implications of this recommendation it that the issue of the counterfactual for structural detriment becomes less important, because (as discussed earlier) the relevant benchmark for the purpose of policy assessment is simply consumer welfare without the policy.

Usefulness and limitations

5.146   We suggest that for many types of policy proposal, it will be appropriate to focus on structural detriment when carrying out an assessment of the impact on consumers. This is particularly the case for policies designed to tackle consumer problems arising from market failure or regulatory failure, and which do not fall into one of the two categories mentioned earlier in our discussion of personal detriment (i.e. policies to provide a framework for well-functioning markets, and policies to protect consumers against serious risks).

5.147   In light of this, we suggest that the Commission might use the concept of structural detriment in the context of:

(a)   Competition law (e.g. mergers, Article 81 or Article 82 investigations);

(b)   Impact assessment of policies designed to improve outcomes for consumers by addressing market or regulatory failures.

5.148   Earlier we discussed some of the limitations of the concept of personal detriment.   In particular, we argued that:

(a)   It would be inappropriate to protect consumers from risks which they knowingly and competently agree to accept the time of purchase;

(b)   Personal detriment should not be used as the sole guide to policy-making, because it only takes account of a sub-set of consumers (those experiencing negative *ex post* outcomes) and thus ignores impacts on consumers more widely;

(c)   Protecting consumers against negative outcomes may affect their behaviour in the market-place, and these effects need to be taken into account in policy-making;

(d)   The concept of personal detriment is difficult to apply in cases where market or regulatory problems mean that consumer transactions do not take place at all.

5.149   The concept of structural detriment does not suffer from any of these drawbacks.   In particular:

(a) It is well-suited for dealing with situations in which consumers voluntarily accept an element of *ex ante* risk or uncertainty, because it is based on *ex ante* consumer surplus rather than *ex post* outcomes;

(b) It takes account of the impact on all consumers, rather than just those who experience negative outcomes relative to reasonable expectations;

(c) Any assessment of the impact of policy on structural detriment would necessarily have to incorporate analysis of how consumers would respond (or have responded);

(d) Consumer welfare can be (and has been) analysed in situations where trades do not take place due to market or regulatory problems.

5.150 A drawback of structural detriment (defined in terms of consumer surplus) is that it is probably not intuitive to non-economists. On the other hand, the underlying concept would be familiar to most economists.

5.151 As discussed in appendix 2, a limitation of the concept of consumer detriment (whether personal detriment or structural detriment) is that it does take account of all elements of society's welfare, since producer welfare is ignored. It is important that policy proposals should be assessed in light of the total costs and benefits to society, whether or not those impacts accrue to consumers. Hence, analysis of the impact of policy on consumer detriment should be viewed as only one input into the process of impact assessment and evaluation.

Definition of "Consumer"

5.152 In this sub-section, we discuss some of the matters relating to the definition of "consumer" which are most relevant in thinking about the issue of consumer detriment. In particular, we consider the following issues:

(a) Intermediate versus end-consumers;

(b) Principal-agent problems;

(c) Individuals versus households;

(d) Today's versus tomorrow's consumers;

(e) EU versus non-EU consumers; and

(f) Consumers in their role as citizens.

5.153 Before beginning our discussion on these issues, however, we briefly look at some existing definitions of "consumer" in Commission documents.

Some existing definitions of "consumer"

5.154   The 1998 Directive on consumer protection in the indication of product prices gave the following definition of "consumer":

> "Consumer shall mean any natural person who buys a product for purposes that do not fall within the sphere of his commercial or professional activity."[43]

5.155   Similarly, the Unfair Commercial Practices Directive gave the following definition:

> "'consumer' means any natural person who, in commercial practices covered by this Directive, is acting for purposes which are outside his trade, business, craft or profession"[44]

5.156   There are at least two important aspects to these definitions: they focus on end-consumers rather than intermediate consumers, and they appear to define consumption at the level of individuals rather than households.

5.157   The Unfair Commercial Practices Directive also discusses the concept of an "average consumer" as follows:

> "It is appropriate to protect all consumers from unfair commercial practices; however the Court of Justice has found it necessary in adjudicating on advertising cases since the enactment of Directive 84/450/EEC to examine the effect on a notional, typical consumer. In line with the principle of proportionality, and to permit the effective application of the protections contained in it, this Directive takes as a benchmark the average consumer, who is reasonably well-informed and reasonably observant and circumspect, taking into account social, cultural and linguistic factors, as interpreted by the Court of Justice, but also contains provisions aimed at preventing the exploitation of consumers whose characteristics make them particularly vulnerable to unfair commercial practices. Where a commercial practice is specifically aimed at a particular group of consumers, such as children, it is desirable that the impact of the commercial practice be assessed from the perspective of the average member of that group. It is therefore appropriate to include in the list of practices which are in all circumstances unfair a provision which, without imposing an outright ban on advertising directed at children, protects them from direct exhortations to purchase. The average consumer test is not a statistical test. National courts and authorities will have to exercise their own faculty of judgement, having regard to the case-law of the Court of Justice, to determine the typical reaction of the average consumer in a given case."

5.158   The definition in the 1998 directive was quoted in the report by INRA and Deloitte for DG SANCO which we covered in our literature review.[45]   INRA and Deloitte discussed the difference between the word "customer" and the word "consumer" as follows:

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[43]   Article 2, e, directive 98/6/EC.
[44]   Article 2, a, directive 2005/29/EC.

"The concepts of 'consumers' and 'customers' are related. In some languages, hardly any distinction exists between these two terms. Even in English the terms are often used interchangeably. For instance, the term 'customer satisfaction' is widely used, but a closer look would reveal that in most cases a more precise term would be 'consumer satisfaction'.

"Some experts make the following distinction between a consumer and a customer:

- The consumer is the one who uses a product or service,

- Whereas a customer pays for the product/service, but may not be the consumer.

"Simply stated: the consumer is the 'user'; the customer is the 'buyer'.

"Another dividing line is that organisations (e.g. companies) can be customers, whilst consumer as a concept is reserved for individuals. Consumer in this project means "any natural person who buys a product for purposes that do not fall within the sphere of his/her commercial or professional activity" (see Art. 2, e), directive (98/6/EC). By this, we clearly mean that we address the end-consumer (B2C) and not any business intermediaries (B2B)."

Intermediate versus end-consumers

5.159 In light of the above, we proceed to our own analysis of whether estimates of consumer detriment should focus exclusively on end-consumers or whether detriment experienced by business customers should also be included.

5.160 The focus of our project is on end-consumers, and hence impacts on businesses are only of interest insofar as they may be a proxy for impacts which are ultimately passed through to end-consumers.[46] For example, if businesses buying a raw material pay higher prices due to an upstream firm exercising market power, then this may be passed through to downstream consumers in the form of higher prices for the finished good.

Pass-through of detriment in intermediate markets

5.161 The ability of firms to raise prices (or reduce quality/service) and thus pass detriment experienced in intermediate markets on to end consumers depends on factors such as the nature of competition and price elasticities.

5.162 Figure 5.4 considers the case of a competitive market. The diagram assumes that all suppliers in this market[47] have experienced some form of detriment when purchasing intermediate goods and services (e.g. due to the exercise of upstream market power),

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[45] INRA & Deloitte, "Development of indicators on consumer satisfaction and pilot survey", Report prepared for DG SANCO
[46] A firm is simply a legal entity, and hence any negative impacts on firms must ultimately be passed on, whether to the firms' shareholders, workers or customers.

and that this has the effect of increasing their cost base. The cost increase is represented by the vertical difference between the two supply curves. The diagram shows that the resulting increase in price can be less than the cost increase – in other words, the pass-through may be less than 100 per cent.[48]

Figure 5.4: Pass-through may be Less than 100 Per Cent
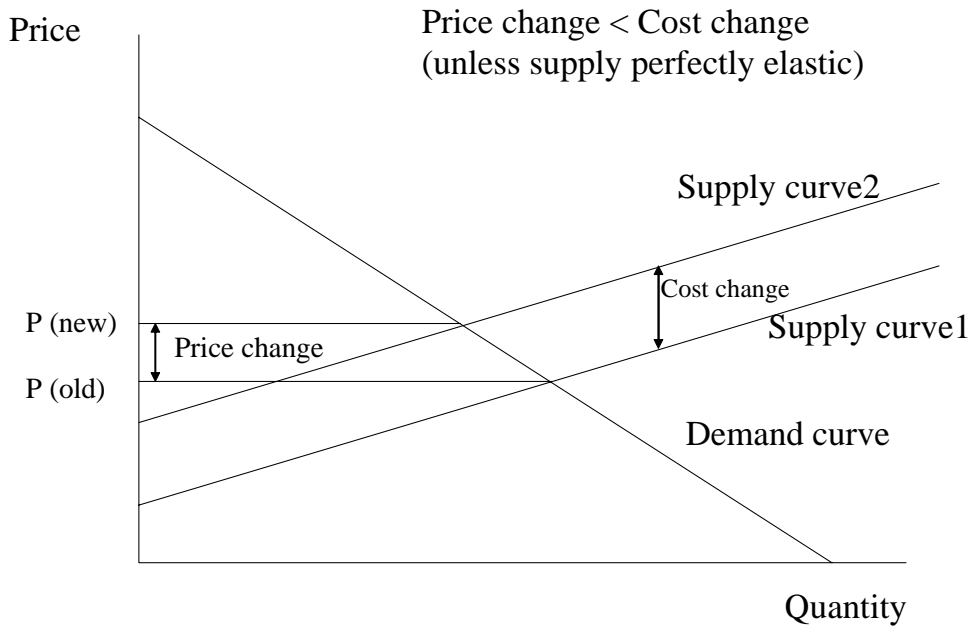
5.163   If the market is an oligopoly, then the ability of the firm to pass on price rises may depend on the firm's role, such as whether it is regarded as a price-leader.

5.164   There is another complication in relation to non-competitive markets. While firms with market power may have the ability to set prices so as to pass through cost increases, their optimal pricing strategy is not affected by fixed costs.[49] Thus detriment that represents a fixed cost may not be passed through (at least not in the short term).

Personal detriment and end-consumers

5.165   In the case of personal detriment, it is relatively straightforward to separate detriment to end-consumers and detriment to businesses, because the concept is defined at the level

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[47]   Since prices are set at the margin, it could be argued that it is only the effect on marginal suppliers in the market which has an effect on market outcomes.

[48]   This is because, provided demand is not perfectly inelastic, volumes will fall as price increases. In turn, the marginal cost of supplying the product will fall as volumes decrease, unless supply is perfectly elastic. This reduction in marginal cost due to lower volumes partly offsets the original increase in cost.

[49]   The firms will set their price and output so that marginal cost and marginal revenue are equal, as this is the point at which profits are maximised.

of individual transactions. For example, a survey might ask respondents about their personal experiences of detriment as a consumer (and not as an employee buying on behalf of their firm).

5.166 There may nonetheless be instances where policy-makers might wish to apply the concept of personal detriment to business-to-business transactions, as improvements to the functioning of markets for intermediate goods and services may improve outcomes for end-consumers as well.

Structural detriment and end-consumers

5.167 In the case of structural detriment, it is arguably harder to separate out impacts on end-consumers because the concept is defined at an aggregate level. Typically, one would not distinguish between different types of customer when estimating consumer surplus in a market. Thus, it may be difficult to isolate structural detriment accruing to end-consumers in markets in which both end and intermediate consumers are purchasing (e.g. petrol retailing, taxis).

5.168 In theory, one could multiply estimates of the change in consumer surplus in each market by the percentage of sales volumes or sales value accounted for by end-consumers, to give a rough estimate of the impact on end-consumers. However, there would be a number of problems with this approach:

(a) At a practical level, data on the breakdown of purchases in each market might not be available and might be difficult to collect.

(b) In some cases, the calculation would implicitly assume that there was no systematic difference in willingness to pay between end-consumers and business customers (and hence consumer surplus could be apportioned on the basis of sales to each group), which might not be correct;[50]

(c) It would ignore the possibility that a proportion of the detriment associated with business purchases might be passed through to end-consumers in other markets.

5.169 Alternatively, one could seek to estimate the proportion of detriment associated with business transactions which is passed through to end-consumers, and include it in the estimate as well. In doing so, care would be need to avoid double-counting (or worse if there are more stages to the value chain!) i.e. counting the detriment both in the intermediate market and when it gets to consumers in the final market. Double-counting could be avoided by:

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[50] This critique applies in cases where the change in consumer surplus involves some trades not taking place due to the market imperfection. It would not apply in cases where there was no change in the volume of trades but simply a change in the price paid, because in this case the change in consumer surplus can be calculated without any reference to willingness to pay.

(a) Estimating directly the *total detriment associated with end purchases*, including any detriment which results from problems in upstream markets which have been passed downstream. There are problems with this approach, however, since it would require analysis of whether the suppliers' cost base was consistent with well-functioning markets upstream, for every cost element.

(b) Estimating the *incremental detriment arising from problems in each market*. Under this approach, the detriment arising from any market would be calculated as the detriment accruing directly to end-consumers in that market, plus the detriment accruing to business customers multiplied by an estimated percentage pass-through. However, a problem with this method is that in order to estimate the detriment caused by a specific upstream industry it is necessary to examine all downstream industries to discover the amount of pass-through.

5.170 Both of the above methods for calculating structural detriment in a particular market or customer group require a range of other industries to be assessed (all upstream suppliers in option a, and all downstream distribution channels in option b). This could sometimes involve a large number of industries, making either of the above approaches complex and difficult to use in practice.

5.171 Given these considerations, it would be reasonable and much less complicated to approximate the structural consumer detriment arising from an industry by the sum of all the detriment accruing to customers of the industry (i.e. including all detriment to business customers, without any adjustment for pass-through). In general, it seems reasonable for policy-makers to assume that making markets work better for all customers (whether business or personal) will ultimately work to the benefit of end-consumers.

Principal-agent problems

5.172 In economics, the term "principal-agent" problem refers to the difficulty of giving incentives for one part to act on behalf of another. The problem arises when one person (the principal) compensates another person (the agent) to carry out actions on his behalf in situations in which some elements of performance are costly to observe. For example, in healthcare there is often a separation between the patient who consumes, the medical practitioner who decides on treatment, and the government who pays. Principal-agent situations can also occur in other markets where expert advice is important, such as in the financial services sector.

5.173 In the presence of principal-agent problems, should we treat the principal or the agent as being the consumer? The issue arises because the principal may not always be able to ensure that the agent correctly implements his preferences. In many situations, uncertainty in signals about the performance of the agent may make it impossible for the principal to use these signals as the basis for an incentive mechanism in individual contracts, and only reputation can be used for decision making. In the case of healthcare, for instance, health outcomes are likely to be affected by factors other than the competence of health professionals.

5.174   The situation can be made more complicated by the possibility of multiple principals with the agent gaining remuneration from both sources. Insurance commissions have been investigated by competition authorities recently because the "principal" here (the person buying the insurance) may not know that the agent also gets payment from the sellers of insurance. In these situations, it is the agent who chooses the product and the decision may be based on the benefit that he obtains from the transaction rather than the best interests of the principal.

5.175   It can be argued that the agent cannot suffer consumer detriment and the consequences of any sub-optimal actions must be passed on, either to the end consumer or to the payer (if different). Hence, from the perspective of the consumer, an agent who is receiving commission from a seller is similar to an integrated supplier. If the customer is not aware that the advice they are receiving is not impartial, then arguably the situation is similar to detriment caused by misleading advertising.

5.176   If the agent is truly independent and is merely choosing a product for reasons other than the consumer's best interest (e.g. he is too lazy to research other options) then it is the process of contracting with that particular agent that has caused the detriment and the situation is arguably similar to the purchase of other products of low quality where there are information asymmetries.

5.177   In any case, we suggest that the "consumer" should be defined as the principal rather than the agent in situations in which there are principal-agent problems.

Individuals versus households

5.178   While in some circumstances consumers might best be thought of as individuals, in other cases households may be the more relevant unit to consider. For instance, consumption of goods for children under parental care might best be examined at a household rather than an individual level.

5.179   A related issue is that groups of people (e.g. friends) sometimes purchase items (e.g. entertainment services or home repairs for shared accommodation) as a joint decision. In order to estimate the total detriment in any market or sector it is necessary to add up the detriment experienced by each purchaser of the product. If consumers are surveyed about the amount of detriment they suffered then this should only be assessed relative to their payment for the jointly consumed item and not the entire purchase, because otherwise the detriment would be over-estimated. On the other hand, there is a counter-acting tendency for joint purchasers to consider the detriment others suffered (e.g. in terms of complaining) when assessing the impact of the purchase. The OFT consumer detriment survey adjusted for shared consumer problems.[51]

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[51]   Mentioned but not described in OFT 296 "Consumer detriment" (2000).

Today's versus tomorrow's consumers

5.180   Another issue relating to the definition of consumer is the temporal dimension. How should the Commission balance the interests of consumers in the future with the interests of current consumers?

5.181   When estimating existing consumer detriment to identify areas for potential policy action, it may often be sufficient to look only at detriment experienced by current consumers, on the assumption that future consumers would face similar problems. The exception would be where there were strong reasons for thinking either that an existing consumer problem was likely to become less important over time, or that a new consumer problem was likely to emerge.

5.182   When assessing the incremental effect of a policy on consumer detriment, it seems appropriate to consider the entire time period over which the policy has a significant impact. This might involve using a time period with a fixed cut-off date, or estimating impacts to perpetuity in cases where a stable effect was expected after a certain date. For example, if effects on innovation are important, the policy maker might want to estimate possible consumer gains from innovation to perpetuity.

5.183   Alongside the question of the timeframe over which impacts should be analysed is the question of what *weight* should be placed on consumer impacts in different time periods. This is related to the more general issue of how to value costs and benefits which fall in different time periods when assessing the impact of policy.

5.184   The standard approach is to discount future costs and benefits, to reflect the fact that most people would prefer to receive any given benefit sooner rather than later. This requires a decision to be reached on the appropriate discount rate to use.

5.185   In principle, the social time preference rate is the appropriate concept for discounting impacts on future consumers. Whereas interest rates provide an indication of the rate at which *individuals* discount the future, the social time preference rate gives the discount rate that *society as a whole* applies to future welfare over current welfare.

5.186   Although various estimates of social time preference have been made, the underlying concept is still subjective. For instance, there are a variety of positions which could be adopted in relation to sustainable development (a concept which seeks to ensure that future generations are not disadvantaged due to insufficient finite natural resources).

5.187   The European Commission's 2005 impact assessment guidelines use a discount rate of 4 per cent. This figure is explained by saying it "broadly corresponds to the average real yield on long-term government debt in the EU over a period since the early 1980's".[52]

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[52]   European Commission June 2005 "Annexes To Impact Assessment Guidelines".

The guidelines also acknowledge that for very long horizons a lower discount rate may be applicable to take account of the preferences of future generations.

5.188 Although this figure does not seem to be an estimate of the social time preference rate, it is not dissimilar to discount rates used by some national governments for policy assessments.[53]

5.189 In any case, there does not seem to be any good reason why impacts on consumers should be discounted at a different rate than other costs and benefits when carrying out an impact assessment. We would therefore recommend that the Commission uses its standard discount rate when valuing impacts on current and future consumers.

EU versus non-EU consumers

5.190 "Consumer detriment" and "consumer" are generic concepts, and hence it should be possible for any government or regulatory authority anywhere in the world to utilise the definitions in this report.

5.191 However, when the Commission *applies* the concept of consumer detriment, it will have to think about which consumers it wishes to protect, and this will involve a geographical dimension. For instance, should analysis of consumer detriment cover:

(a) All purchases made in the EU (including those made, say, by foreign tourists);

(b) Purchases made by EU consumers in the EU; or

(c) Purchases by EU consumers both within and outside the EU?

5.192 *Prima facie*, it seems reasonable to suggest that the Commission's primary goal should be to protect EU consumers. It would seem inappropriate for the Commission to pursue policies that benefited non-EU consumers at the expense of citizens of EU Member States (although if non-EU consumers benefited as a side-effect of policy that might be considered advantageous).

5.193 On the other hand, it could be argued that it would violate principles of international co-operation if the Commission were to place too little weight on benefits to non-EU consumers. This could work to the disadvantage of EU consumers if authorities elsewhere in the world reciprocated by failing to take action to protect citizens of EU Member States buying goods and services elsewhere in the world. One approach to this problem would be place more weight on benefits to non-EU consumers in cases where

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[53] The UK rate is now 3.5 per cent – see HM Treasury (2003), "The Green Book: Appraisal and Evaluation in Central Government". Previously, the UK government had used a rate of 6 per cent which was intended to include an adjustment for risk - see HM Treasury (1997). Germany has used 3 per cent and France 8 per cent - see Evans, D., Sezer, H. (2002), "A Time Preference Measure of the Social Discount Rate for the UK", Applied Economics, 34, 1925–1934, October.

the EU was acting in co-ordination with regulatory bodies in other parts of the world, whether informally or under international agreements.

5.194   In addition, the Commission might place particular weight on the impact that its policies have on consumers in less developed countries because of its international aid objectives. For example, it might be concerned if companies were exporting damaging sub-standard products to Africa.

Consumers in their role as citizens

5.195   Finally, an issue for consideration is whether "consumer detriment" should include detriment suffered by people in their role as citizens.

5.196   There are at least two aspects to this question:

(a)   Should public sector bodies purchasing goods and services be included within the definition of "consumer", on the grounds that any detriment may ultimately be passed through to citizens / taxpayers?

(b)   Should detriment suffered by people acting as "consumers" of public services be included? For example, if the government fails to provide adequate protection for its citizens against crime or natural disasters, should this be counted as an element of consumer detriment (even in the case of services funded through taxation)?

5.197   In relation to the first issue, there are a number of arguments for including detriment suffered by public sector purchasers, at least when the focus is on structural detriment. It can be argued that detriment which is suffered by the government in a procurement context and which is borne by taxpayers should be considered in a similar way to detriment arising where any other agent purchases on behalf of a principal. Restated in another way, it can be argued that in a democracy the government is (or at least is meant to be) simply a vehicle for people to act collectively. Moreover, at a practical level, the task of measuring structural detriment may be easier if industry output does not have to be broken down by type of purchaser.

5.198   The second issue raises interesting questions. If detriment suffered by the users of public services is not included, then estimates of consumer detriment might fall artificially if the provision of certain goods were transferred from the private sector to the public sector. At the same time, there are some services which are public-provided (e.g. coastal defences) where intuitively it seems more appropriate to engage in political debate about the role and performance of government than to frame the debate in terms of consumer welfare.

5.199   Consumer detriment could potentially be a useful concept for public sector services where governments may be seeking to introduce greater scope for citizens to choose and to act as consumers. For example, in some EU Member States the concept of consumer detriment could be useful in assessing healthcare and education services, particularly where market-based reforms have been adopted.

6 LINKAGES BETWEEN ECONOMICS, PSYCHOLOGY AND MARKETING

Introduction

6.1 This section discusses how psychology, marketing and economics link together, in the context of consumer detriment.

6.2 The terms of reference for this project envisage a multidisciplinary approach to the issue of consumer detriment. In particular, they require that:

(a) The multidisciplinary survey of existing research should cover relevant findings from consumer economics, behavioural economics, psychology and marketing. Further, the most applicable parts of existing research should be merged into a multidisciplinary analysis;

(b) The proposed definition of consumer detriment should encompass both monetary and non-monetary aspects of harm to consumers;

(c) The proposed approach to estimating consumer detriment should include methods of identifying non-monetary detriment and, where appropriate, suitable methods of incorporating such elements into the general methodological framework of the study;

(d) Market monitoring indicators could be based on common features of problematic markets where consumers are likely to suffer economic "or other" detriment.

6.3 The above requirements raise the question of whether and how economic, marketing and psychological notions of consumer detriment can be brought together within a single, coherent framework. This section sets out a possible approach to this question.

6.4 As becomes clear later, the linkages between economic and psychological aspects of the project depend on how consumer detriment is defined. Hence, this section considers separately our two proposed definitions of consumer detriment, namely:

(a) *Personal detriment* – negative outcomes for individual consumers, relative to reasonable expectations.

(b) *Structural detriment* – loss of consumer welfare (or, reduction in consumer surplus) due to market or regulatory failure.

6.5 The structure of this section is as follows:

(a) We begin by clarifying the meaning that economists attach to certain terms;

(b) Next, we discuss how personal detriment can be broken down into financial and non-financial detriment (with the latter including psychological impacts);

(c) We then move on to consider structural detriment, where we argue that consumer surplus already includes the risk of psychological detriment;

(d) Within the framework of structural detriment, we describe a number of potential applications of psychology and marketing;

(e) Finally, we draw together some conclusions.

6.6   For the avoidance of doubt, not all the possible applications of psychology and marketing discussed in this section come within the scope of this project. On the contrary, some of the applications relate to how the Commission (and other policy-makers) might make use of psychology and marketing in addressing consumer detriment in the future (e.g. in designing policy remedies).

Terminology

6.7   As a prelude to our discussion, it may be useful to clarify two specific points relating to some of the terminology used by economists.

6.8   First, *"economic" does not mean the same thing as "financial".* As discussed in section 5, when economists measure consumer welfare they typically focus on a concept called "consumer surplus", which is the difference between what a consumer would have been willing to pay for a product and what he actually paid. Although consumer surplus can be expressed in monetary terms, by definition it relates to the benefits that consumers receive for which there is no financial payment.

6.9   Second, *an assumption that consumers are rational does not imply that they have full information.* Mainstream economics models consumer behaviour as though consumers were rational (although behavioural economics, which relaxes this assumption, is gaining popularity). However, this assumption of consumer rationality does not mean that consumers gather all the information that is potentially available before making their decisions. Rather, it implies that consumers will engage in a rational search procedure, collecting further information only when the expected benefits from doing so exceed the costs. Hence, where search costs are high relative to the likely benefits of searching, consumers may rationally choose to take decisions on the basis of imperfect information.

Personal Detriment Comprises Financial and Non-Financial Impacts

6.10   We first consider personal detriment (i.e. negative outcomes for individual consumers, relative to reasonable expectations).

6.11   Personal detriment cannot be measured without first specifying what would constitute "reasonable expectations" in the situation of interest. Psychology and marketing has an important role to play in explaining how consumers form their expectations, and advising on what expectations might be considered "reasonable" in any given context.

6.12   As discussed in section 5, personal detriment can be broken down into two parts:

(a) *Financial detriment*, which occurs when a consumer experiences a negative outcome which leaves him financially worse off. (Note that we are now discussing "financial" detriment as distinct from "economic" detriment.)

(b) *Non-financial detriment*.   Negative non-financial impacts which consumers may experience include loss of time and *psychological detriment* (i.e. negative psychological effects such as feelings of anger, worry or regret).

6.13   Financial and psychological detriment are additional to each other.[54]   This can be demonstrated with reference to a simple example. Suppose a consumer is deceived by a salesman into paying €1,000 more for a product than its market value. Further, let us suppose that several months later the consumer is informed by a friend that he has been ripped off and experiences feelings of anger toward the salesman. In this example, the consumer suffered financial detriment at the time of the transaction, whereas psychological detriment was something additional which he experienced subsequently.[55]

6.14   In the context of personal detriment, psychology and marketing can be applied in analogous ways to those discussed later in relation to structural detriment. For instance, psychology and marketing can assist in analysis of how consumers may suffer personal detriment due to non-rationality or information problems (i.e. with the focus in this context being on *ex post* impacts on those individuals who experience a negative outcome, rather than on changes in *ex ante* consumer surplus). To take another example, psychology can provide useful insights into whether indicators such as consumer complaints provide an accurate picture of personal detriment (see section 18).

6.15   In addition, when the focus is on personal detriment there is greater scope for analysing and measuring negative psychological effects in their own right. We consider this an important advantage of adopting two definitions, rather than a single economics-based definition based on consumer surplus.

Quantifying and valuing psychological impacts

6.16   Psychological detriment can obviously be analysed in qualitative terms. However, is it possible to quantify psychological impacts?

6.17   The answer is that there are (at least) two approaches that could be adopted in order to quantify psychological impacts. These are:

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[54]   A caveat here is that the counterfactual against which financial detriment is measured (i.e. what the consumer might reasonably have expected to pay) rests on psychological factors.
[55]   Of course, the magnitude of psychological detriment may at times be related to the magnitude of financial detriment.

(a) *Constructing attitudinal measures*, such as scores on a scale of 0-10 for how frustrated or upset consumers feel. (In section 14 we refer to a range of established marketing scales which have been discussed in the literature.)

(b) *Placing a monetary value on impacts*, using economic techniques or drawing on other evidence (see below).

6.18   The first approach may have some merit, in that it would seem fairly easy to obtain this type of measure from a consumer survey (one of the methodologies we propose later in this report) and it would provide at least some indication of the magnitude of psychological impacts. It could be used, for example, to compare the magnitude of self-reported psychological detriment across different types of scams or unfair trading practices.

6.19   Whether or not a monetary value should be placed on psychological impacts is perhaps a more debatable question. On the one hand, this would allow the policy-maker to compare the magnitude of financial and non-financial impacts on consumers who suffer negative outcomes (since they would both be expressed in common terms). On the other hand, it would add significantly to the complexity of measuring personal detriment, and it could be argued that detailed quantitative work is best focused on measuring structural detriment (which, as argued later, already incorporates psychological impacts).[56]

6.20   Nonetheless, we discuss below how a monetary value could in theory be attached to psychological impacts.

6.21   Psychological impacts may have both direct and indirect effects on consumers' well-being, both of which should be included in a valuation.

(a) *Direct impacts* – the very fact of experiencing a negative psychological impact (e.g. stress) reduces the consumer's well-being.

(b) *Indirect impacts* – some negative psychological impacts may lead to knock-on effects for the individuals concerned. For instance, if a consumer experiences high levels of stress due to a transaction which went wrong, this may reduce his productivity at work which may in turn affect his income (e.g. if he is self-employed, or if the impact is prolonged and feeds through into future pay settlements).[57]

6.22   There are a number of methodologies which could potentially be used to work out what monetary value should be attached to particular psychological impacts. These include:

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[56]   A discussion of the respective usefulness to policy-makers of structural and personal detriment is outside the scope of this note.
[57]   There could be spill-over effects associated with these indirect impacts, such that the consumers' own loss from the psychological impact may be less than the total loss to society. For instance, if a consumer's productivity falls in the workplace, this may affect not just the consumer's own wage but also the profits which he generates for shareholders and the amount of tax which he pays.

(a) *Court awards.* Court outcomes (e.g. compensation for stress and lost earnings) may provide useful evidence on the financial value that judges have attached to certain psychological effects.

(b) *Revealed preference.* There may be relevant market transactions which reveal how much consumers are willing to pay to avoid certain psychological impacts, or how much they have to be paid to be willing to accept them. For instance, it is possible that a study could reveal that workers are paid more (for an equivalent job) if they work for bosses who make them feel stressed or angry (i.e. their salary may implicitly compensate them for negative psychological impacts).

(c) *Stated preference.* Consumers could be asked about the value that they place on psychological impacts (e.g. using a survey). There are different ways in which this could be done:

  – *Contingent valuation* involves asking a direct question such as "How much would you have to be paid to be willing to go through the same stress again?"

  – *Conjoint analysis* involves presenting respondents with different options (e.g. scenarios with different combinations of financial and psychological detriment) and asking them to rank them in order of preference. Choices can then be analysed to determine how consumers are (implicitly) trading off psychological impacts for different amounts of money.

(d) *Experiments* – volunteer participants could be asked to take part in experiments which require them to choose (implicitly) between avoiding negative psychological effects and receiving a monetary reward.[58] For example, they could be promised a certain sum of money if they complete a stressful exercise, but told that they can withdraw at any time (and lose the money) if they wish to do so.

6.23 The valuation exercise does not necessarily have to be repeated each time the policy-maker is addressing a new situation involving consumer detriment. Rather, one or more of the above methodologies could be used to work out a typical valuation for psychological detriment which is given a particular attitudinal score (e.g. 3 out of 10) in self-report surveys. Provided that there is a relatively stable relationship between each attitudinal score and its monetary valuation,[59] specific examples of detriment could thereafter be valued by applying these pre-existing valuations to attitudinal scores (which, as discussed above, are relatively straightforward to measure).

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[58] There may be ethical issues associated with such experiments.

[59] Research would be required to establish whether or not this is the case. If necessary, the methodological approach could be refined if valuations depend on other easily measurable variables apart from the attitudinal score (e.g. the consumer's income). However, the methodological approach would break down if no stable relationship could be found between attitudinal scores and monetary valuations, even after allowing for other such variables.

6.24   However, we reiterate that we are not convinced about the usefulness of placing a monetary value on psychological aspects of personal detriment in this way. It may be a better use of the policy-maker's resources to focus detailed quantitative work on structural detriment, which, we argue below, already incorporates psychological impacts. It may be more appropriate to analyse psychological aspects of personal detriment in qualitative terms, possibly supplemented with the use of attitudinal scores.

Structural Detriment Captures Psychological Impacts

Preferences

6.25   Mainstream consumer economics tends to treat consumers' preferences as determined exogenously, with attention focusing instead on how consumers behave given their (exogenous) set of preferences.

6.26   Further, within mainstream economics consumer welfare is typically analysed in relation to what consumers prefer, without making value-judgments on whether these preferences are "valid". In other words, if a consumer prefers consumption bundle X to consumption bundle Y, then it is assumed that his welfare increases if we give him X instead of Y.

6.27   However, the study of consumer psychology and of marketing allows analysis of how consumer preferences are constructed in the first place. For instance, in relation to the above example a psychologist might analyse the various social and psychological factors which explain why the consumer prefers consumption bundle X.

6.28   Hence, it could be argued that psychology can help to explain how consumers' preferences come about, whereas economics explores the economic decisions that consumers take in light of these preferences.

Implications for welfare measurement

6.29   An important implication of the above framework is that when economists measure welfare, they will by definition be valuing psychological costs and benefits. As stated above, economists typically measure welfare by measuring consumer surplus, which is defined as the difference between what a consumer is willing to pay for a product and what he actually pays. Economists assume that consumers are motivated by a wish for gratification,[60] and that a consumer's willingness to pay for a product will reflect the value that the consumer places on those psychological benefits and costs which are anticipated *ex ante*. For example:

(a) The more *enjoyment* that a consumer expects to experience from a product or service which he buys, the greater the amount he is likely to be willing to pay for it;

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[60]   This could (arguably) include gratification from altruistic behaviour.

(b) The more *frustrated* that a consumer expects to feel when a product fails, the less he is likely to be willing to pay for a low quality brand with a high failure rate.

6.30 The second example is particularly instructive in the context of consumer detriment, because it illustrates the fact that consumer welfare (as defined by an economist) takes account of the risk of "psychological detriment", where this risk is known *ex ante*.

6.31 The distinction between *ex ante* and *ex post* welfare is important here. Consumer surplus and structural detriment are *ex ante* concepts i.e. they focus on consumers' expected welfare. When there is an element of risk or uncertainty associated with the purchase, *ex post* consumers may do better or worse than they expected. The crucial point is that known *risks* of experiencing negative psychological impacts should be captured in consumer surplus.

6.32 Indeed, it can be argued that the economic concept of consumer surplus *fully* incorporates the risk of *ex post* psychological detriment when the consumer is:

(a) *Fully informed*, so that he has a correct understanding of the probability of psychological detriment occurring, and the likely nature and magnitude of the impact if it does occur;

(b) *Rational*, in the sense that he does not make cognitive errors in deciding how much he is willing to pay.[61]

6.33 The conclusion which follows from the above is that there would be double-counting if psychological detriment is treated as being separate from, and additional to, structural detriment.

6.34 For example, suppose that a regulator has introduced a minimum quality standard in a certain market, and wishes to assess the impact which this has had on consumer detriment. For the sake of simplicity, let us assume that the only effect of the regulation is to reduce the chance of product failure (e.g. there are no effects on price or on the volume of sales). In this instance:

(a) A psychologist might analyse the reduction in psychological detriment in terms of fewer consumers experiencing stress, anger, frustration and so on;

(b) An economist might analyse the reduction in structural detriment by measuring the increase in consumer surplus which has resulted from the fact that consumers are now willing to pay more for the product (but do not actually have to do so).

6.35 However, the regulator would be double-counting if he treated these as separate impacts which are additional to each other. Provided that the above conditions (of full information

and rationality) apply, structural detriment would be expected to take full account of the reduced risk of negative psychological and financial impacts from product failure, because both would be incorporated into consumers' willingness to pay.

What if consumers are imperfectly informed?

6.36   Does structural detriment include psychological detriment when consumers are imperfectly informed about the risk of negative psychological outcomes?[62]

6.37   In order to explore this issue, we first have to consider how consumer welfare should be measured in the presence of imperfect information.   In particular, when calculating consumer surplus, should the calculations be based on:

(a)   Consumers' *actual* willingness to pay? or

(b)   Consumers' *"true"* willingness to pay i.e. what they would be willing to pay for the product if they had full information about it?

6.38   In our view, calculating consumer surplus as the difference between consumers' *actual* willingness to pay and the market price could give spurious results, because willingness to pay may have been distorted by the lack of information.

6.39   For instance, suppose that a firm were to exploit information asymmetry by running misleading advertisements which exaggerate the quality of its product. If consumers are misled by this advertising, they may become willing to pay more for the product than they would otherwise be willing to do.[63]   Assuming that the price of the product remains unchanged, focusing on *actual* willingness to pay when calculating consumer surplus would lead us to the conclusion that consumers have gained greater surplus and are therefore better off as a result of being misled by sellers!

6.40   More generally, it can be argued that, in the presence of imperfect information, actual willingness to pay may not always represent the value the consumers truly place on the product (or put another way, the value that consumers *would* place on the product if they knew the full truth about it).

6.41   In such circumstances it can be argued that consumer surplus should be defined as the difference between what an *informed consumer* would be willing to pay and the market price.   This definition would mean that consumer surplus would always take account of

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[61]   We discuss the meaning of rationality in more detail later.
[62]   Where there is an element of risk or uncertainty, the consumer cannot be expected to know exactly whether or not psychological detriment will occur. However, the important question is whether the consumer understands the nature of that risk or uncertainty, so as to be able to factor it into his decision-making.
[63]   In reality, the effects of imperfect information are more complicated than this. For example, if consumers are aware that some firms make misleading claims but are unable to distinguish between honest and dishonest firms, then they may be less willing to participate in the market or begin to discount all advertising (including truthful claims made by honest firms).

the risk of psychological detriment, because an informed consumer would (by definition) know about this risk and factor it into his willingness to pay.

What if consumers are non-rational?

6.42   It might be argued that structural detriment does not always fully capture the risk of psychological detriment because consumers are not always rational.   Is there any substance to this argument?

6.43   It may be helpful to begin with a discussion of what is meant by rationality.

6.44   For the avoidance of doubt, the assumption of rationality does not require consumers to carry out the mathematical calculations that might be set out in an economics textbook in making their consumption decisions. For instance, economists have developed models of consumer behaviour which assume that consumers seek to maximise their utility (or gratification).   In practice, we know that consumers do not consciously compute utility-maximising solutions when they make consumption decisions. This does not undermine the validity of these models, provided that consumers act *as if* they were doing so.

6.45   An analogy may be helpful here. An expert playing pool may act *as if* he understood the laws of mechanics and were carrying out mathematical calculations to determine the optimal angle and strength of each shot. If questioned, the player would probably deny that this was the way he played the game. Nonetheless, a physicist might use the laws of mechanics to explain what the pool player was doing.

6.46   Further, we suggest that it is important not to describe consumer behaviour as "non-rational" on the basis of subjective value-judgments about whether their preferences are appropriate.[64]   For example, if a consumer is willing to pay €5,000 for a painting, it would not be appropriate for a policy-maker to label this as "non-rational" on the basis of a different view about the worth of the painting.

6.47   Non-rationality does arise, however, if consumers take decisions on the basis of cognitive errors. For instance, a non-rational consumer might misunderstand the laws of probability (e.g. he might buy a raffle ticket thinking that because he did not win last time he was more likely to win this time).

6.48   In the presence of cognitive errors, it is possible that consumers may have full information on the risk of psychological detriment, but may over-weight or under-weight this risk in deciding how much they are willing to pay for a product. For instance, a consumer who has recently experienced a problem with a certain product may overweight the probability that such a problem will happen again.

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[64]   Some models in behavioural economics are based on preferences acting in a different way to that assumed in mainstream economics. Whether such preferences constitute "non-rationality" is a debatable point.

6.49   In such cases, focusing on the difference between consumers' *actual* willingness to pay and the market price could again give spurious results, because willingness to pay has been affected by a cognitive error. For instance, suppose a firm employed marketing tactics which exploited cognitive errors, such that consumers became willing to pay more for the product. Assuming that the price remained unchanged, focusing on *actual* willingness to pay when calculating consumer surplus would imply that consumers can gain greater surplus as a consequence of making errors!

6.50   Hence, in the presence of non-rationality it might be suggested that consumer surplus should be defined as the difference between what *rational* consumers would be willing to pay and what is actually paid.[65] Again, this would mean that by definition structural detriment will fully incorporate the risk of psychological detriment.

Applying Psychology and Marketing in the Context of Structural Detriment

6.51   The above argument could be misinterpreted as suggesting that a psychological study of consumer detriment does not add anything to an economic study of consumer detriment (at least, when the focus is on structural detriment rather than personal detriment).

6.52   However, this would be incorrect. Within the framework of structural detriment, psychology and marketing (including market research) have some important roles to play, particularly in relation to:

(a) The study of behavioural economics;

(b) Analysis of how consumer behaviour is affected by information problems;

(c) The measurement of economic variables;

(d) The application of conclusions from economic theory to real world situations;

(e) Analysis of issues relating to equity and vulnerable consumers.

6.53   These applications are discussed in more detail below.

Behavioural economics

6.54   Mainstream economics analyses and models consumer behaviour as though consumers are rational, as discussed earlier. This is sometimes criticised as being an unrealistic assumption which gives rise to results which do not always explain real world phenomena.

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[65]   For the avoidance of doubt, in this definition we take "rational" to mean that the consumer does not make cognitive errors. This should not be confused with paternalistic value-judgments about whether consumers' underlying preferences are appropriate.

6.55   Behavioural economics could be interpreted as a response to this criticism.[66]   Camerer and Loewenstein have written that:[67]

> "Behavioural economics increases the explanatory power of economics by providing it with more realistic psychological foundations."

6.56   Section 10 analyses consumer detriment arising from biases in consumer behaviour, and hence this is not the place to explore the implications of behavioural economics.   The point to note here is simply that behavioural economics represents an important interface between psychology and economics.

Investigating how imperfect information affects consumer behaviour

6.57   Above, we argued that structural detriment captures any risk of psychological detriment even in the presence of imperfect information, provided that consumer surplus is appropriately defined so that it relates to what *informed* consumers would be willing to pay.

6.58   However, this gives rise to the question as to how consumers' actual behaviour and willingness to pay would change if they were more informed. For instance, suppose that a firm sells large volumes of a bottled drink which it wrongly markets as giving health benefits. Assuming consumers are deceived by these claims, we might expect that sales of the drink would be lower if consumers were better informed.[68] However, *a priori* it is not possible to say by how much sales would be lower (e.g. some consumers might buy the drink anyway because they like the flavour).

6.59   In this type of situation, marketing and consumer psychology could play a useful role in analysing how consumers' behaviour is being affected by their lack of information. For instance, psychological insights could contribute to a market research study into the reasons for consumer preferences.

Measuring economic variables

6.60   Insights from psychology may be helpful in seeking to measure variables of interest to an economist.

6.61   For instance, suppose that an economist wished to carry out a consumer survey to measure how much consumers would be willing to pay for something for which no market price was available (e.g. how much consumers would be willing to pay not to receive junk mail). In such survey work, the way in which questions are phrased can sometimes affect

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[66]   An alternative point of view is that rationality is an axiom of economics i.e. it is relevant in deciding whether something counts as an economic explanation. In this case, behavioural economics might be seen simply as another discipline based on a different set of axioms, rather than an attempt to "improve" on conventional economics.

[67]   See "Advances in Behavioural Economics", edited by Camerer, Loewenstein and Rabin.

[68]   See caveats in footnote 63.

the answers. Hence, a psychologist might assist in constructing a questionnaire so as to eliminate or reduce the potential for bias in responses.

Applying findings from economic theory

6.62   Psychology and marketing can be useful in working out how conclusions from economic theory apply to real world situations.

6.63   To give an example, economic theory leads us to believe that informative advertising can be pro-competitive and beneficial for consumers, whereas misleading advertisements have the potential to harm consumer welfare. However, expertise in marketing and psychology is needed to work out which advertisements fall into which category.

6.64   Other examples of how psychology and marketing could be useful in applying findings from economic theory include the following.

(a) Marketing and psychology may help in the identification of trading practices (or scams) which work to the disadvantage of consumers by taking advantage of information problems or common cognitive errors. We discuss certain marketing practices and scams which sellers use to take advantage of consumers in section 7 of this report.

(b) Marketing and psychology can help regulators to identify effective policy solutions to market problems identified by economists. For instance, they could help in designing and implementing:

   – Publicity campaigns to address information problems faced by consumers;

   – Labelling schemes to communicate information about product characteristics (e.g. the health benefits of food) in a way which limits the potential for consumers to be misled by firms;

   – Quality assurance schemes to enable consumers to distinguish between reputable and disreputable firms;

   – Mandatory disclaimers or warnings (e.g. on financial service products) to inform consumers about the risks inherent in certain products.

Analysing equity and vulnerability

6.65   Economists may be interested not just in total welfare, but also in distributional issues (i.e. which groups in society gain and which lose). Such analysis may be useful to policy-makers who wish to place particular weight on impacts which fall on the most vulnerable in society.

6.66   Marketing and psychology can assist in identifying groups of consumers who may be particularly vulnerable to consumer detriment.   Consumers could be considered "vulnerable" in one of two senses:

(a) They may be vulnerable to experiencing a situation of detriment (e.g. children may be particularly vulnerable to misleading advertisements due to cognitive limitations[69]);

(b) They may suffer greater psychological detriment than other consumers when a situation of detriment occurs (e.g. the elderly may feel particularly upset or fearful following a scam).

6.67   Psychology and marketing can assist in the analysis of vulnerable consumers by identifying:

(a) *Psychological profiles* which are associated with vulnerability to detriment (e.g. too trusting), and how these profiles are correlated with socioeconomic variables (such as education, income, or age);

(b) *Emotional states* which leave consumers vulnerable to detriment (e.g. recently bereaved);[70]

(c) *Environments* in which consumers are particularly vulnerable to detriment (e.g. sales which take place in the home[71]).

6.68   This issue of consumer vulnerability is an important one for this study because of its causal relationship to consumer detriment. Section 7 of this report analyses consumer vulnerability from a psychology and marketing perspective.

6.69   A further application of psychology and marketing would be in designing policy proposals to protect vulnerable consumers. For instance, a psychologist or marketing expert could advise on how certain marketing activities might be regulated to prevent firms taking advantage of vulnerable consumers (e.g. doorstep selling regulations).

6.70   Finally, expertise in psychology and marketing could be useful when assessing the impact of consumer protection regulation. For example, this might involve analysing how regulations may affect outcomes for a typical vulnerable consumer and/or carrying out survey work to identify the prevalence of psychological profiles associated with vulnerability within the population as a whole.

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[69]   This example raises the question of whether consumption should be analysed at the level of the household or the individual. If consumption decisions are modelled at the household level, then cognitive limitations for children may be less relevant.

[70]   To give another example, Lunt (2006) argues that positive emotions can lead to detriment because they result in less intensive cognitive evaluation on the part of the consumer.

[71]   OFT 716f, "Psychology of Buying and Selling in the Home", 2004.

Conclusions

6.71   From the analysis in this section, we conclude that the following in relation to personal detriment:

(a) Personal detriment can be broken down into financial and non-financial impacts, with the latter including psychological detriment.

(b) Psychology and marketing have an important role to play in analysing what might constitute "reasonable expectations" in any given context (our suggest counterfactual for personal detriment).

(c) Psychological detriment can be quantified by constructing attitudinal measures (e.g. scores on a scale of 0-10).

(d) There are a number of methodologies which could potentially be used to place a monetary value on psychological impacts, although the usefulness of doing so is open to debate.

6.72   In relation to structural detriment, we conclude that:

(a) Structural detriment fully captures the risk of *ex post* psychological detriment.

(b) Nonetheless, even within a framework which focuses on structural detriment, there are a number of useful applications of psychology and marketing, including the provision of assistance in:

– The study of behavioural economics;

– Analysis of how consumer behaviour is affected by information problems;

– The measurement of economic variables (e.g. willingness to pay);

– The application of conclusions from economic theory;

– Analysis of issues relating to equity and vulnerable consumers.

7 PSYCHOLOGY AND MARKETING ANALYSIS OF CONSUMER DETRIMENT

7.1 We would like to acknowledge that the material in this section was written by Professor Lunt, with only minor editing by Europe Economics.

7.2 The section is structured under the following sub-headings:

(a) Consumer vulnerability;

(b) The changing basis of consumer vulnerability and detriment;

(c) Contemporary marketing practice and consumer detriment;

(d) Introduction to the psychology of consumer detriment;

(e) Individual psychology;

(f) Social psychology;

(g) Consumer psychology;

(h) Case studies: the interaction between marketing and consumer psychology.

Consumer Vulnerability

7.3 Consumer detriment, theoretically speaking, rests on the concept of consumer vulnerability. It is possible to conceive of vulnerability as an axis or scale. On one end is the concept of the consumer as sovereign, empowered, and rational – capable of making informed choices. On the other end is the concept of the consumer as ill-informed, easily overpowered, and emotional – and thus incapable of such choices. However, recent research suggests that this is a false dichotomy. Rather, consumption studies, consumer psychology, and marketing have shifted away from the attempt to identify vulnerable consumers (that is, to establish which "groups" are vulnerable) and towards the idea that any consumer can be vulnerable in certain circumstances.

7.4 Vulnerability turns out to be difficult to define, and the relation between the vulnerable consumer and the detrimental practice is a complex one. Ringold (1995) suggests the following definition of vulnerability: the "diminished capacity to understand the role of advertising, product effects or both" (p.584). Other definitions focus on susceptibility to harm or lack of capacity to maximise utility (e.g. Smith and Cooper-Martin, 1997).

7.5 Some recent research has tried to assess the different proposed dimensions of vulnerability. Baker et al review existing approaches to vulnerability emanating from marketing and consumer research. These include:

(a) The classification of **vulnerable groups** based upon:

    − Visible characteristics (ethnicity, age, sex);

    − States of mind (cognitive, emotional);

    − States of the body (addiction, disability).

(b) The legal view of **vulnerable individuals** based on analysis of United States court rulings. These individuals have the following characteristics (Morgam, Schuler and Stoltman (1995, 274):

    − Heightened physical sensitivity;

    − Lessened physical competency;

    − Lessened mental competency;

    − Lower sophistication level.

7.6 These two dimensions of vulnerability (the group and the individual) *interact* with five **characteristics of consumption situations**:

(a) Material environment;

(b) Decision maker;

(c) Consumption interval;

(d) Usage definition;

(e) Temporary conditions.

7.7 Thus consumer vulnerability can be said to be the dynamic interaction between a potentially vulnerable individual or group and the consumption situation.

7.8 Baker et al further distinguish between *actual* and *perceived* vulnerability, the former based on the experience of vulnerability and the latter being defined from outside the consumer experience. The authors suggest that a consumer-driven approach to vulnerability can be used to develop a valid model of vulnerability, deal with much of the confusion in the area and provide a basis for policy advice.

7.9 The identification of vulnerable groups of consumers is important in the context of the survey methodology we propose later in the report (see sections 13 and 15), because it informs the choice of demographic variables to include in the survey instrument. Our proposed demographic questions are discussed in section 15.

7.10 This section of the report summarises recent research relevant to psychological consumer detriment, with a focus on detriment resulting from various types of marketing, advertising, and sales activities. It is clear that not all advertising has detrimental effects, and that

some activity can be detrimental to some consumers while remaining neutral and even beneficial to others. The disciplines of psychology and marketing studies have both advanced explanations and categories of consumer detriment, which we examine more fully in this section.

7.11   In general, psychological aspects of non-monetary detriment falls into several separate analytical areas:

(a) **Psychological** detriment (e.g. disappointment, dissatisfaction or offence);

(b) **Social** detriment (e.g. lack of trust in others due to fear of fraud);

(c) **Detriment to society or social groups**, including indirect effects on non-consumers (e.g. the development of a less polite, more fearful, or less cohesive society, or the stigmatisation of certain groups).

7.12   In practice, these areas often interact, with, for example, psychological detriment in the form of fear or disappointment interacting with social detriment such as the inability to ask critical questions. Consequently, we end this section of the report with two case studies that illustrate the interaction between marketing practice and consumer psychology in relation to detriment associated with **scams and fraud** and **children's responses to advertising**.

7.13   The aim of these reviews of work in marketing and psychology that bear on consumer detriment is to establish the theoretical and empirical basis for identifying forms of psychological detriment. This forms a prelude to later sections of the report that aim to **estimate** the scope and extent of non-monetary personal consumer detriment and also to suggest higher level **indicators** for assessment by policy-makers.

The Changing Basis of Consumer Vulnerability and Detriment

7.14   We begin our review by considering the current state of marketing theory and practice, as both marketing and psychological theories have developed in recent years. There has been a long-established interplay between marketing theory and practice and psychology (cognitive, behavioural and social). This reflects a broader interplay between communication theory and psychology. Psychological principles are interpolated into marketing practice; consequently it is difficult to articulate an account of psychological detriment that is "independent" of marketing.

7.15   What is the potential consumer detriment which may result from some marketing strategies? To answer this question requires an analysis of the different ways that marketing strategies influence psychological processes and, in addition, an examination of the broader psychological and financial effects of and responses to marketing.

7.16   Recent changes in marketing practice adopt a broad conception of "the subject" into marketing practice. Traditional marketing practice, strongly influenced by psychology, focused on influencing consumer decision-making. In contrast, contemporary marketing,

while still leaning on these traditional psychological models of the consumer, now engages consumers through their emotions, and through their cultural and social identities. Marketing practice today emphasises "integrated" marketing, supported by a marketing mix that includes public relations, sponsorship, advertising, direct marketing, promotions, structuring the point of sale, packaging and personal selling. Consequently, understanding, estimating and deriving indicators for the potential detriment which may arise from some marketing practices requires an analysis of the different ways in which marketing communications address the consumer-citizen.

7.17   Complementing this analysis of the way that marketing practices influence the psychology of the consumer there has been considerable concern in the recent marketing literature about questions of marketing ethics. The implication here is that policy could aim to support the capacity for "reflexivity" in marketing practice. Reflexivity entails being aware of and accountable for effects of marketing practices on the consumer and on consumer culture, and especially being aware of the ways in which marketing practices influence relatively automatic, implicit, tacit or unconscious processes. In contrast to the idea of judging the ethics of marketing practices in relation to misleading information (cognitive), influencing behaviour (behavioural) or persuasion of attitudes or opinions (social) the focus would shift to making explicit the mode of engagement and site of effect of marketing strategy. Part of this shift of focus would be an emphasis on corporate responsibility – that is, not just ethics as regards the decisions, behaviours and attitudes of individual consumers but also an engagement with longer-term social and cultural processes.

Contemporary Marketing Practice and Consumer Detriment

7.18   The following review of marketing practices focuses on identifying potential sources of consumer detriment. It should be noted at the outset that the general approach adopted here is that connections between marketing and consumer psychology are not direct and strong effects, but rather moderate direct effects and weaker indirect effects (Livingstone, 2005). This has implications for *definition,* for *estimation* and for the development of *market indicators* since in many cases there is a contingent interaction between marketing practice and consumer psychology.

7.19   Contemporary marketing communication aims to integrate promotional and communications practices (based on Pickton and Broderick, 2005). It consists of three related practices:

(a) **Targeting**. One of the incentives for firms to develop integrated marketing communications strategies arises from the high cost of advertising and other marketing tools. This means that targeting becomes important, and there has consequently been . a general shift from mass-market communications to increasingly targeted and personalised forms of communication in marketing.

(b) **Longer-term campaigns**. A second important shift has been the acknowledgement of the importance of campaigns in promotion (moving away from the notion of a single moment of communication which is also implied by the mass-communication model).

(c) **Coherence across media.** A third shift has been the growing recognition of the importance of coherence in promotion and communication strategy over a range of promotion and communication tools which combine tactical and strategic aspects of communication. An important aspect of coherence is the recent strong attention by advertisers to branding, which in turn has been the focus of much marketing research in recent years.

7.20 In sum the shift is from a focus on a transmission model of information to the idea of a branded campaign, which integrates promotion and communication over time.

7.21 Underlying this shift is a changing understanding of the model of communication appropriate to marketing – starting from the traditional Yale School notion of sender (who), message (says what), channel (by which medium), receiver (to whom) and moving to an appreciation of the cycle of communication (encoding/decoding) over time.

7.22 Therefore, while looking at contemporary marketing theory, we can identify several potential sources of consumer detriment:

(a) **Confusion**. While this new communications model (the cycle of communication) is evident in practice, marketing theory still tends to discuss these issues in exclusively information terms. Thus it argues that the potential problem for both firms and consumers is confusion due to "noise" in the communication between firms and consumers. In recent communication theory the distinction between information (transmission issues) and ritual (cultural/emotional/identity issues) communication has been acknowledged and so a complementary account of potential consumer detriment arising from the cultural aspects of communication is needed. Nevertheless, the traditional model indicates that a potential source of consumer detriment arising from marketing communications is confusion, which we will examine later.

(b) **Targeting of vulnerable consumers/consumers in vulnerable states.** The shift from mass-marketing to targeted promotions and communications over time has also led to a rethinking of the scope of communications in marketing – from mass-marketing through targeting of demographic or regional groups, through niche marketing, to personal marketing. Putting this increasing emphasis on targeting groups or individuals means that the site of influence or persuasion in advertising is increasingly the isolated individual.

(c) **Campaigns**. Another implication of the development of marketing campaigns is the focus on the *hierarchy of effects*. For example, a common approach to conceptualising a marketing campaign is the *AIDA* model: Awareness → Interest → Desire → Action. In essence this is a hierarchical model that establishes the

necessity of certain psychological states prior to the desired action (normally purchase). This hierarchy of effects also implies that a variety of psychological phenomena are in play at different moments in a promotional campaign and that defining and estimating consumer detriment will include *motivational* (consumer involvement/engagement) and *emotional* aspects of psychology to complement the traditional focus on *decision-making*. It follows from this that although the bottom line might still be whether or not the person consumes and whether or not they suffer financial detriment, the extended relationship of communication between firms and consumers now depends on the deployment of a variety of relatively *intangible strategies* on the part of the firm and reactions on the part of the consumer. This relationship can represent detriment in its own terms (as when the consumer feels deceived or manipulated) and it is a potential influence on purchase and can therefore be a cause of financial detriment. We explore consumer responses to contemporary marketing practices below.

(d) **Social influence**. Marketing still tends to focus on the strong and direct effect of whether or not consumers make a purchase. The exception to this has been the acknowledgement of the *two-step flow* of communication and the importance of opinion leaders or (as they are called in marketing theory) market mavens. This issue opens up questions of indirect *social influence* in marketing, which we will also discuss later. The changing nature of marketing communications suggests a variety of subtle effects of that are an example of *persuasive communication***.**

7.23   In sum, these changes in integrated marketing communications strategy open up the range of psychological variables relevant to the *definition*, *estimation* and potential *market indicators* of consumer detriment related to marketing. It also suggests that, although information asymmetry is still important, this takes on a strategic form in marketing practices which engage consumers through a range of psychological dimensions, thus going beyond the economic characterisation of having more information about products and access to markets.

7.24   These points are given emphasis by the way that the marketing mix has developed to go beyond advertising to include personal selling, sales promotions and public relations (all of which overlap in hybrid forms of placement and promotion of firms and products/brands) creating a *complex* consumption environment for the consumer.

7.25   Traditionally, consumer understanding of advertising techniques and marketing practices (consumer literacy) are assumed to benefit consumers. This is an extension of the psychology of "resistance to persuasion" where it is widely recognised that people are less likely to be persuaded if they recognise an attempt at persuasion. (Indeed, such an attempt might "boomerang" so that consumers change their opinion in the opposite direction to that intended in a form of **reactance motivation**). On this view, making consumers aware of advertising methods is considered to be positive because it will make them "read" adverts critically and thereby be less open to influence. It also implies that persuasion occurs in a way which allows for the elaboration of counter arguments to those presented in favour of the product. However, it is possible that people are relatively

less able to "interpret" advertising due to the novel and well thought out nature of persuasion in advertising as reviewed above.

7.26 In response to the growing knowledge and sophistication of consumers, firms are developing increasingly diverse and subtle forms of advertising, where sometimes the product is placed in the "background", realistic self-appraisal of the object is offered, or an attempt is made to engage with the criticisms of the product or firm. This is in addition to the development of high pressure tactics that intrude into people's homes and which are sources of particular concern. Marketing techniques are constantly being developed and revised in the light of the public understanding of these methods. Innovations in marketing seek to develop a relationship with the consumer and to move the appeal away from traditional marketing of characteristics of goods bolstered by endorsements to the selling of lifestyles, service and quality.

7.27 Online advertising, relationship advertising, sponsorship, and telesales techniques all require quite different forms of knowledge on the part of the consumer – and there is a lag in the literature in that it still mainly focuses on traditional conceptions of persuasion.

7.28 Another source of potential problems is the sophistication of the public understanding of marketing practice. This point arises from the idea that forms of marketing are rapidly changing and that there might be a reaction amongst consumers to these changes. It can be argued that traditional modes of advertising are reasonably well understood by the public but that new, increasingly sophisticated forms of advertising (e.g. online advertising, tele-advertising, and the development of shopping channels using auction selling methods) are still not well understood. In addition, these potential lags in public understanding of advertising and marketing techniques may be of particular concern in relation to vulnerable groups, particularly the elderly and the young.

7.29 These questions of knowledge and interpretation interact with the fact that relationship marketing and other such techniques do not primarily work through offering opinions or information about products that can be accepted or countered, but by establishing a relationship with the client based on identity and mood. These changes in marketing practice blur the boundary, for example, between engagement and decision and, indeed, this is the basis of the appeal of contemporary marketing practice – it offers the consumer a form of detached engagement in a symbolic world of goods.

7.30 These changes have important implications for what is at stake in the relationship between firms and consumers – because detriment can no longer be understood in terms of the voracity of the claims made in advertising (i.e. was the information clear and informative?). Instead, a more nuanced relationship between firms and consumers is developing, which raises difficult issues (maybe best thought of as moral issues) in relationships between firms, regulators and consumers.

7.31 Large firms no longer only adopt advertising campaigns for particular products but are developing sophisticated public relations strategies that engage consumers at a number of levels and attempt to control the public perception of the firm and access to information

about its products and services (i.e. there is an increasing focus on management of the consumer relationship).

7.32   This raises a range of issues about the meaning of detriment, particularly for relatively affluent consumers who are fully engaged in consumer culture and enrolled as consumers.   In this context it is difficult to define and develop an appropriate understanding of consumer literacy linked to an analysis of the range of marketing methods and techniques, and this is something that is only now emerging in the marketing literature.

Introduction to the Psychology of Consumer Detriment

7.33   As discussed in section 4, recent research for the OFT presented a wide-ranging review of psychological phenomena associated with consumption (Lunt, 2005). The purpose of that review was to identify the range of psychological variables potentially related to detriment. The report concluded that the relationship between psychology and consumer detriment was complex: psychological variables can lead to financial detriment (e.g. by making people more susceptible or vulnerable), but there can also be psychological effects arising from financial detriment (e.g. regret and stress) and psychological detriment in consumption can be part of longer term aspects of identity (e.g. values). Lunt also emphasised that the psychological variables implicated in consumer detriment are diverse and cover a wide range of psychological phenomena from individual cognitive processes and emotional experience to social psychological processes.

7.34   The research emphasised that psychological variables play different roles in detriment and interact with economic variables in different ways: sometimes psychological variables are causes of financial detriment (e.g. when sub-optimal decisions result), sometimes psychological variables constitute the detriment in themselves (as in stress or dissatisfaction) and sometimes psychological variables mediate the relationship between consumption and a specific behaviour (e.g. in complaining).

7.35   In general, we can divide the psychological variables into two groups:

(a)   Variables associated with **individual psychology**; and

(b)   Variables associated with **social psychology**.

7.36   The next section reviews each of these in turn. After discussion of the variables, we turn to the **models of consumer behaviour** which have been developed by marketing researchers and consumer psychologists. We then move on to discuss the issue of **long-term detriment**.

Individual Psychology

7.37   In the area of individual psychology, three key areas have been highlighted by research as affecting consumer decision-making. These are first, **confusion;** second, **emotion;**

and third, **consumer satisfaction**. The first two are discussed in some detail below, and the third is discussed later in this section.

Confusion and choice

7.38   We begin our review by examining consumer confusion. In psychological terms, it seems clear that confusion and choice are closely linked.

7.39   The choice agenda is an important component linking consumer demand to competition in both public services and private consumption. A strong case can be made for the positive economic effects of consumer involvement through the exercise of choice. It seems an excellent example of how individuals maximizing their own interest can enhance competition and has been at the centre of the idea of the sovereign consumer. In relation to public services, choice potentially changes the relationship between the providers and recipients of public services by giving consumers an active role (through the exercise of their choice) in the structuring of public services, thus driving competition for the supply of public services. In section 8, we discuss some of the economic literature on the relationship between choice and consumer welfare.

7.40   Nevertheless, there is an emerging literature on the psychology of choice that raises a number of doubts regarding this positive cycle of relations between consumer choice and the market. This section will review some of the ideas that are emerging from the psychological study of choice.[72] In particular, it will examine what potential consumer detriment may result from a policy focus on choice, given what we know about the way that people handle choice.[73]

7.41   The assumption that the more choices a consumer has the better off he will be is articulated in economic theory, in consumer policy and in the material structuring of the offer in contemporary consumption (as exemplified by aisles of potato crisps and soft drinks). Furthermore, the focus on choice is not restricted to goods but underpins recent policy that encourages private funding of welfare (e.g. personal pensions). Echoing the risk society thesis, the emphasis on choice complements an approach to social security that emphasises self-sufficiency in consumers and is reflected in the rapid rise of employer-provided retirement plans. (This is true particularly in the US context but similar arguments about the future of welfare funding apply in Europe.)

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[72]   As well as the book *The Paradox of Choice* by Barry Schwartz there has been a growing number of academic studies of the psychology of choice – we have referred particularly to the work of Sheena Iyengar in preparing these points (http://www.columbia.edu/~ss957/articles.html).

[73]   As an aside, both the economic analysis of the relationship between choice and competition and the psychological research on constraints on choice both make an important assumption about the priority of choice as a mechanism for public engagement through the market. This assumption is challenged later in this report (section 18) when we review the distinction between "exit" and "voice" and consider the relationship between the expression of consumer choice and citizenship concern.

7.42   These changes are driving the development of choice in a range of sectors so that choice is increasingly part of consumption. The key question, therefore, is *whether there is such a thing as too much choice.*

7.43   The assumption that choice is good is also strongly reflected in the psychology literature on choice and decision-making. For example, it has been assumed that increased choice has positive psychological effects by enhancing individuals' feelings of *self-control* (a dimension of subjective well-being) and strengthening *intrinsic motivation* (whereby individuals find their own motivations rather than being motivated by external rewards and contingencies).

7.44   The combination of improving competition and at the same time increasing psychological health through raised feelings of self-efficacy and subjective well-being is at the centre of the choice agenda. However, if there were convincing arguments that the psychology of choice has potentially negative aspects then the realities of choice rather than the theory of choice might guide marketing practice and consumer policy. Also, importantly, choice links behaviour to market efficiency so that variables that constrain or de-motivate choice in individuals could have market level effects. Such effects reflect the dependent relation between competition and active consumer choice, and negative psychological reactions in lack of self-efficacy and negative subjective well-being – all substantial detriments.[74]

7.45   At the centre of this critique is the notion that there is a curvilinear relation between positive psychological outcomes and choice – too much choice or choices that are too complex lead to similar negative psychological consequences as too little choice – *choice only works for people in moderation*.

7.46   Iyengar and Lepper (2004) demonstrate the potentially negative consequences of too much choice. In their field experiment they showed that post-sample purchase of jams was more likely when the choice of samples was limited (to 6 compared with 24). Interestingly, when comparing the numbers of customers who approached the sample offer, the total was greater for the high-choice condition. However, a significantly greater proportion of those who approached the reduced-choice condition samples made a purchase. The conclusion is that *while choice is attractive to consumers, if they find it difficult they are de-motivated by choice*.

7.47   Subsequent laboratory based studies have confirmed these findings and allowed investigators to examine what it is about choice that can be potentially off-putting to consumers.   Such experiments have demonstrated that consumers report enjoying making the choice more in the complex condition.   However, subjects in the simpler choice condition were more satisfied with their choices and said that they were more likely

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[74]   There is a possible psychological explanation for lack of complaining here on two counts – first, because the focus is on choice rather than the expression of opinion, and second, because negative feelings in the face of choice affect motivation – it is as though the system is saying "you have been given your opportunity through making a choice and if you cannot manage that then you give up your right to complain."

to make a subsequent purchase. These findings indicate that the *emotions (satisfaction) are not a good guide to the effectiveness of choice decisions and that commitment to choices is stronger for simpler choices*.

7.48   There has also been close attention paid to the risks involved in choice – perhaps some of the effects of choice overload are particularly salient when the risks of purchase are low so that the motivation to put the required effort in to make a complex choice is not there. It has been found that various conditions can exacerbate the effects of choice overload, that is, when the costs of making a "wrong" choice are highly salient and substantial time and effort are required to make the choice.

7.49   Iyengar has also examined choices of personal pension schemes based on extensive company records and found similar effects – the more complex a pension plan (in terms of the underlying investment structure) the less likely employees were to take it up.

7.50   These effects are compounded by the tendency for individuals (especially when making complex, consequential choices) just to go along with suggestions made by employers or advisors (Sunstein and Thaler, 2003). It seems that complex choice raises difficult issues relating choice to *expertise* and *trust*. This links in with the discussion of principal-agent problems in section 5.

7.51   In summary, in the short-term choice may result in detriment for consumers if the choices available are too difficult or too complex, resulting in potential confusion, dissatisfaction and over-reliance on expert or professional advice. We will return to the relationship between choice and longer-term psychological detriment later.

Emotion

7.52   Having reviewed the literature on confusion and choice, we turn to the relation between emotion and decision-making. The focus of much consumer psychology and marketing research to date has been on explaining influences on consumer decision-making, and recently researchers have been investigating the role of emotions in this process.

7.53   Diverse areas of psychology (i.e, cognitive, social and physiological psychology) examine the functional relationship between emotions and decisions. However, recent theory emphasises that *the role of emotions in human psychology is not best understood by opposing emotions to rationality and by regarding emotions only as sources of confusion and error in decision making*.

7.54   Damasio (1994) studied a brain injury patient (referred to as EVR) and argued that the patient had all the information required to make decisions and had perfectly good social knowledge. However, EVR lacked the normal neural connections between the cognitive and emotional centres of the brain. EVR suffered from radical indecisiveness not because of lack of intelligence or memory defects but because he lacked the effect of linking emotions to decision-making, that is to say a stable goal commitment which enables the options before us to be accepted or rejected. Such evidence has important implications for consumers who have perfectly intact frontal lobes because *detriment can*

arise in decision-making if the goal orienting functions of emotions are adversely affected by marketing or the construction of the point of sale.

7.55   In relation to the issue of consumer detriment it is important to acknowledge that the studies to date have focused on identifying the potential role of emotions in consumption, which will give us an idea of which emotional variables might produce detriment. There is, however, little research on the impact of emotions on financial detriment nor any audit of emotional reactions in consumption as a measure of non-monetary detriment. It is also important to note that *satisfaction* is a critical output variable – this raises the important question of the potential relationship between utility and human emotions that is now being researched under the heading of "subjective well-being".

7.56   Emotions are the basis of heuristic processing in decision-making (the "how-do-I-feel-about-it" heuristic). Other research (Hanoch, 2002) suggests that there are three primary ways in which emotions influence consumer decision-making:

(a) Mood induction effects which "colour" the content of thought;

(b) Alteration of the process through which people make decisions;

(c) Inducing behaviour aimed at compensating for feelings.

7.57   Much work on the effects of emotions in consumption focuses on "valence" effects – that is, when the emotion has general effects that influence purchase rather than specific psychological and motivational effects. Emotions may also affect the perceived value of the good, effects that have particularly been noted in branding. Hirschman and Holbrook (1982) suggest that desire can dominate considerations of price and quality, the emotional value of a good can be disconnected from its actual properties (establishing commitment), consumption can be grounded in an imaginative construction of reality (hedonic consumption) and consumers can be motivated by sensory-emotional experience in making consumption choices.

7.58   There has also been research suggesting more specific effects of particular emotions. For example, Gallagher and Clore (1985) present evidence that links **anger** to overestimations of risk and **fear** to underestimations of risk. Other research demonstrates the potential for **positive emotions** to create consumer detriment through the following processes:

(a) A general *mood* effect - people make more positive evaluations when in a positive mood;

(b) Positive mood is associated with schematic thinking leading to lack of attention to detail *(dual process theory)*;

(c) If a negative mood is induced there will be a tendency to ignore detailed information in order to enhance positive mood.

7.59   This is an emerging area of research and as reviewed in Lunt (2005) there has been considerable attention to the issues involved in measuring emotions.

Social Psychology

7.60   In section 5 we mentioned that although personal detriment is defined in relation to the experience of individual consumers, societal and group influences may nonetheless be important (e.g. in determining how consumers behave or how they react psychologically to negative outcomes).

7.61   Having reviewed potential elements of individual psychology which bear on consumer detriment, we now turn to social psychology. Here we have identified four areas for further examination: **social influence**, **attitudes**, **politeness**, **values**. These elements all affect how consumers make decisions in their social context.

Social influence

7.62   A major social psychological process relating to consumer detriment is what psychologists call social influence. Social psychologists examine a variety of methods of social influence such as **persuasive communication** (making a suggestion), **compliance** (following a request), **conformity** (falling in with implicit social pressures) and **obedience** (following a command).

7.63   In the context of marketing communications the most relevant concept of social influence is *conformity*. Conformity is a change in behaviour due to implicit social pressure. For example, what is called peer group pressure is an example of conformity; the pressure that individuals feel to fit in with the norms of their reference group. Conformity effects are strong if the individual perceives the norm to be consensual or widely held and if the norm is visible. Group size increases conformity effects. There is some debate as to whether conformity is best explained by individuals concluding that the majority probably knows best (*informational influence*) or results from individuals desiring to "fit in" with the group (*normative influence*).

7.64   Social influence is an important psychological part of persuasion that operates through pre-commitment and the use of a graduated persuasion strategy (foot in the door technique) enhanced by a variety of binding factors that are developed in social interactions. Social psychological experiments have established that individuals are prone to go along with what they perceive to be the accepted norms in social situations - they tend to be led by what they see as the authoritative view. The argument is that socialisation leads us to be only relatively autonomous and that when cues of appropriate behaviour are provided, people tend to follow them. Often, avoiding consumer detriment requires the individual to go against the grain of the situation and to express opposition or disagreement. Such apparently non-coercive forms of social influence have been demonstrated repeatedly in social psychology: they have a potentially strong impact on social behaviour.

7.65   *Persuasive communication* and *conformity* are both strategies of social influence that operate by influencing the beliefs held by social actors. However, there are other ways in which social influence operates resulting from *strategic interaction* and the mutual adjustments that are a subtle and inevitable dimension of communication. This kind of social influence works through the voluntary engagement of individuals in social interaction (Argyle, 1992). This opens up a variety of potential sources of exploitation and vulnerability in consumption exchanges.

Attitudes and Influence

7.66   There has been a strong association between the study of attitudes and social influence in social psychology – persuasive communication, as a form of social influence, is understood as the attempt to change attitudes in order to influence behaviour. Much of the effects of advertising and policy interventions can be understood in terms of the attitude change literature.

7.67   There have been a number of different approaches to the study of attitudes in psychology, which we will briefly review here.

7.68   Attitude theory links thought and feeling to persuasive communication – it seeks to determine how behaviour can be changed by changing attitudes through persuasion. Initially the assumption was that attitudes were a combination of visceral and cognitive orientations towards a particular situation or object resulting in either an embracing of the object (positive attitude) or a rejection of the object (negative attitude). This approach was gradually replaced by approaches that emphasised the structural nature of beliefs and their contingent relation to specific behaviour in context. The models that emerged in response to these developments suggested that beliefs influenced intentions to behave which were in turn influenced by attitudes. This can be understood as a cost benefit analysis of the positive and negative consequences of acting on the basis of the attitude mediated by the normative influence of beliefs about whether other people would find the behaviour socially acceptable. In more recent research the importance of habit and of the individual's perceived control over the relevant behaviour have also been acknowledged.

7.69   Persuasive communication in marketing can operate on any part of these attitude processes. By giving information about the positive and negative features of products and services the individual's cost benefit analysis of the consequences of the behaviour can be influenced. By using credible sources and information about others' consumption the normative component can be influenced and representations of what is normal behaviour can influence what is taken to be the habit in relation to consuming a particular good or service.

7.70   Alternative approaches place less emphasis on structural aspects of attitudes and focus on the route to persuasion in attitude change either by working on inconsistencies between feelings and beliefs, by persuading through the presentation of ideas that trigger cognitive elaboration, or by diverting the consumer into accepting (e.g. celebrity endorsement).   Another set of approaches to attitudes present a dual processing

approach which study the environmental influences (particularly cognitive load and motivation) on whether consumers make snap decisions based on general weighing up of features of goods or services, or whether they focus on issue relevant features.

7.71   These models emphasise that attitude change strategies work by tapping into the motivation and the ability of the consumer to think about products and services. The main point in relation to consumer detriment is that the conditions under which consumers can give time to evaluate the arguments presented about the features of goods and services occur under very particular communication conditions so that the attitudinal influence of marketing communications operates on different parts of attitudinal processes.

Politeness

7.72   Consumption is not just a financial exchange but also a social interaction between buyers and sellers. In this sub-section, we turn to a third area of social psychology, social interaction and politeness.

7.73   It is notable that many of the examples of complaints about service refer to aspects of the social interaction between supplier and consumer. The ability to manage the interaction with the supplier, particularly when things go wrong, relies on developed interpersonal interaction skills. Conversely, it is also clear that the supplier will be able to dominate the complaints processes by exploiting the consumer's desire to seem "polite."

7.74   This may well explain the relative lack of psychological detriment in goods where the service component is relatively small, especially where consumers are dealing with firms that have established routines for returning goods and complaint handling. In contrast, where there is a greater service component to the product, there may be more psychological detriment because consumers anticipate that interaction with the supplier will bring about resolution (instead of making the situation worse).

7.75   What does the **social psychology of social interaction** tell us about such matters? Much of the research on social interaction attempts to identify the features of the "ideal speech situation": this is envisaged as a conversation between two equals that is aimed at achieving a mutual understanding. Such expectations form the basis upon which people judge their experience of social interactions. Similarly, the new emphasis on "social skills" exploits people's psychological vulnerability if they find that despite acquiring such "skills," they are still unable to manage social interaction.

7.76   Conversations seem to happen easily most of the time – yet this is due to people possessing the necessary complex skills to ensure the smooth running of a conversation. Participants in a conversation have to manage their turn-taking and they do this by chunking their contributions into recognisable units so that the person they are interacting with gets a clear signal when it is their turn to speak.

7.77   If a particular participant in a social interaction is dominating turn-taking in conversation, then in face-to-face conversation the other participant(s) will use a variety of cues to signal that they want a turn. These involve non-verbal cues of arousal (head nodding, hand

waving, saying "yes-yes"). Clearly in a telephone conversation there is a dearth of nonverbal signalling (apart from prosodic forms) and so it is more difficult to signal an opening subtly. This places the participant in the difficult position of having to break the normal rules of turn-taking to gain parity in the conversation (i.e. they are forced to jettison "politeness" and to engage in interruptions).

7.78   Clearly an important dimension to control of the social interaction in marketing contexts is politeness. Politeness has a number of psychological dimensions (from Lunt, 2005):

(a) Friendliness:

– Making the encounter enjoyable, warm, characterised by acceptance;

(b) Bolster the other's self esteem:

– Avoid damage to "face" of the other person;

(c) Avoid constraining the other parties to the social interaction:

– Do not give direct requests;

(d) Avoid saying "no":

– There is strong social pressure in social interaction to offer a positive response and to avoid putting the other in the position of saying "no";

(e) Recover and repair social interactions that are going wrong:

– This is an obligation to keep a social interaction polite and smooth and not to create difficulties for other participants;

(f) Avoid rule-breaking:

– Interrupting;

– Not answering questions;

– Talking too much.

7.79   If we combine these subtle normative rules for social interaction with the evidence that consumers find it difficult to put the telephone down and that there are age and social economic status factors in vulnerability, we can see that some of this detriment is the result of a lack of ability to manage interaction, particularly in relation to persuasive communication in marketing.

Values

7.80   We come now to the study of values, the fourth area in social psychological thought which bears on consumer detriment.   Psychologists have spent considerable effort conceptualising, measuring and evaluating the role of values in people's lives. Values are understood as blueprints for living (*instrumental values*) but also as the basic goals of human existence (*terminal values)* (Rokeach, 1968). In this view individual differences in values are reflected in the rank ordering of specific values (e.g. happiness, equality, honesty, politeness). The development of reliable survey methods has allowed changes in the rank ordering of values to be observed between cultures and over time. This has led to the conclusion that there are differences in value between West and East along the axis of individualism and collectivism (clusters of values on the Rokeach Values Scale). There have also been many studies over time demonstrating that there is a move away from collective values in favour of individualism.

7.81   The idea that there might be a shift in values related to increasing materialism has attracted considerable research over the past 20 years. The potential conflict for citizen-consumers has been explored:

> "One vexing problem facing consumers in the United States and other developed nations is how to cope with the mixed messages and divergent perspectives that arise in a society that simultaneously places considerable emphasis on both material values and more collective-oriented values such as family cohesion, community ties, and religious fulfilment" (Burroughs and Rindfleisch, 2002, p. 348).

7.82   The implications of a large number of studies in a variety of disciplines is that the spread of the materialistic lifestyle potentially leads to psychological detriment for individuals and negative consequences for society at large as evidenced by problems of *sustainability*, the breakdown of *traditions* and the lessening of *civil commitments*.

7.83   On the individual level, high levels of materialism are associated with reduced *life satisfaction*, lower levels of *happiness* and higher levels of *depression* (Burroughs and Rindfleisch, 2002). However, research linking values to measures of subjective well-being reveal equivocal or small effects leading to suggestions that the relationship is not direct but moderated by variables such as social capital and economic resources.

7.84   A recent trend in research is to move away from the idea of an overall correlation between material values and subjective well-being and to examine the detailed relations between dimensions of what are both complex constructs (Burroughs and Rindfleisch, 2002).

7.85   In response to some of these complexities and methodological critiques of the Rokeach approach, an alternative approach developed by Schwartz has been developed which uses ratings of core values, which are derived from studies of values from a variety of global cultures. The resulting structural model of values is claimed to be universal (a kind of semantic space of values).

7.86   Schwartz and his colleagues have tested this classification of values in cultures across the globe using multidimensional scaling techniques and have concluded that the core values are ordered in a "circumplex" – a spectrum like the colour spectrum – in the following order:

(a) Self-direction;

(b) Stimulation;

(c) Hedonism;

(d) Achievement;

(e) Power;

(f) Security;

(g) Conformity/tradition;

(h) Benevolence;

(i) Universalism.

7.87   Many cross-cultural studies have been analysed and the conclusion has been reached that there are two vectors underlying the semantic space of values constructs:

(a) Openness to change → conservation

(b) Self-enhancement →   Self-transcendence

7.88   Burroughs and Rindfleisch (2002) conclude, after testing the relation between value orientation, materialism and subjective well-being, that materialism is in opposition to collective value orientation which leads to potential role conflict and psychological tension.

Subjective well-being and happiness

7.89   An area of study that has developed rapidly in recent years combining work in both economics and psychology is what is being termed "the science of happiness" (Diener, 2000; Layard, 2005). Although this is an emerging area of research it has a long history because it links both to ethical questions (what constitutes the good life) and to the foundations of economics (since it examines the relationship between economic value and life satisfaction). The notion of subjective well-being also relates to political questions since it encodes the idea of the right of each individual to well-being and relates to utilitarianism. These may be old questions but they relate to a combination of evidence that is emerging from developments in psychological science, sociology and demand-side economics.

7.90   The origins of the new science of happiness were ideas in which Inglehart (1990) adapted Maslow's hierarchy of needs to the analysis of national comparisons of the relationship between wealth and happiness. Across many countries at different stages of economic development, people valued happiness and life satisfaction.

7.91   Work has continued on the definition of subjective well-being and we review this work here, returning to questions of method and measurement later in the report when we examine the methods used to measure subjective well-being.

7.92   Moderation appears to be optimal in relation to subjective well-being – in other words, happiness is not simply equated with intensity of feeling. Subjective well-being is like a form of contentment, so that a background level of happy responses are not counteracted by short but intense feelings of negative emotions.

7.93   Measures of subjective well-being have been related to values and in particular it is suggested that lower levels of satisfaction are correlated with high levels of material value orientation. Such findings have been interpreted as supporting the "hedonic treadmill" hypothesis (adaptation) and the relation between character and subjective well-being.

7.94   So far this sub-section has focused on the way in which changing values of materialism, in part promoted by marketing efforts, may lead to both personal and societal detriment. We move now to examine how marketing efforts may come directly in conflict with values, causing offence.

Offence

7.95   Much previous research on consumer detriment focuses on the potential harm of advertising through encouraging the consumption (or excessive consumption) of potentially harmful products. This has been complemented by the analysis of the offence caused by media. This area indicates that detriment can occur when individual values are challenged by media content. Offensive advertising has traditionally been an area of complaint by consumers of media.

7.96   There has been a steady increase in complaints (evidence given in the Advertising Standards Authority's Annual report for 2004-5 – from Hargrave and Livingstoen, 2006) about advertising, suggesting that they are increasingly using potentially offensive content (Crosier and Erdogan, 2001).

7.97   Sancho and Wilson (2001) suggest that offence is caused by a variety of factors:

(a)   Disabled viewers felt marginalised in advertising (symbolic annihilation);

(b)   Minority ethnic groups complain of lack of representativeness and the use of negative stereotypes;

(c)   There is concern about the condoning of bullying through the identification of negative images of children that might be picked on;

(d) There is concern about the use of national and other forms of stereotyping (gender, age, race).

7.98   Millwood Hargrave and Livingstone (2006) summarise the results of a survey of over 2,000 adults by *The Advertising Association* which documented that over 20 per cent reported being personally offended by advertising.

7.99   There was particular concern over direct marketing and push advertising, although the proportion appears to be dropping over time. The demographic profile of those offended was women, older people, middle class and non-white ethnic groups, whereas men and younger people report being offended on behalf of others (Millwood Hargrave and Livingstone, 2006). There was particular concern about the increasing use of sexualised portrayals of children in advertising. There was an acknowledgement that disturbing adverts were allowable for public information and campaigns but not for commercial advertising.

Consumer Psychology

Consumer behaviour models

7.100   Models of consumer behaviour are usually box and arrow models that identify key psychological and environmental variables in boxes and the connections between them using arrows. A typical example is that by Engel, Blackwell and Miniard (2000).

7.101   Such models identify variables inside and outside the individual (environmental or situational variables and psychological variables) and an ordered set of relations between consumer decision processes with "causal" influences asserted between the environmental and situational variables and the stages of the decisions process.

7.102   Variables that influence decision processes are:

(a) Environmental influences;

(b) Culture;

(c) Demographics (social economic status, gender);

(d) Reference group/significant others;

(e) Situation.

7.103   Individual differences comprise:

(a) Financial resources;

(b) Motivation and involvement;

(c) Knowledge;

(d) Attitudes;

(e) Personality;

(f) Values;

(g) Lifestyle.

7.104 The consumer decision process is also seen as a series of cognitive and emotional psychological processes.

7.105 The consumer decision process involves the following steps:

(a) Recognition of need;

(b) Information/product search;

(c) Pre-purchase evaluation;

(d) Purchase;

(e) Post purchase evaluation;

(f) Satisfaction.

7.106 What is noticeable in such models is that cognitive variables are seen as affecting the early part of the decision process (recognising needs and information) whereas both environmental influences and individual differences have impacts on most of the stages of consumer decision processes. The impact of marketing practice is equally dispersed and subtle and intervenes on all of these processes.

Consumer satisfaction

7.107 Our literature review covered a number of papers on consumer satisfaction (see section 4), and we also referred to the subject in our discussion of the counterfactual for personal detriment (see section 5).

7.108 Research into consumer satisfaction and related concepts such as consumer confidence and sentiment has a long history and a short past. The long history refers to the study of consumer satisfaction both in the academic community and market research. This has mainly been studied as a general indicator of the level of satisfaction/concern within the social body. It is an aggregate measure of social attitude that is grounded in the economic concept of utility. However, detailed studies of individual consumers were not conducted but rather studies that represent the general level of satisfaction (and changing sentiment) of consumers with the provision of goods and services. However, more recently there has been a more concerted attempt to understand consumer psychology from an economic perspective (or to develop demand-side economics with a more psychologically realistic conception of the consumer).

7.109   The most well-known approach to the measurement of general attitudes as opinions derives from the pioneering work of George Katona in the 1940s. In the US, *Surveys of Consumer Attitudes* aim to measure changes in consumer attitudes and expectations, in order to attempt to explain why these changes occur and to relate the changes to consumer decisions. The data are also used to try to predict changes in aggregate consumer behaviour. The surveys combine quantitative attitude scales with qualitative responses asking for reasons for specific consumer behaviours. This series also developed a composite measure of consumer sentiment, which is used to calculate an index of consumer satisfaction.

Individual Differences

7.110   Complementing the analysis of decision-making in consumer psychology there has been an equal effort to map the individual differences between consumers. These are important to the study of detriment because they indicate long term aspects of character that influence variations in individual consumers' behaviour. In addition, much effort has gone into developing valid and reliable measures of individual psychological differences and consequently this is a fruitful area to look for validated instruments that may provide a basis for estimating consumer detriment.

7.111   As an approach within general psychology, individual differences were historically associated with the measurement of intelligence and personality. However, this general approach to human character and ability has been supplemented by an examination of a variety of specific differences in human ability, character, emotions and thought.   In consumer psychology a diverse range of specific individual differences have been examined as correlates of a variety of consumer behaviours. Some of these derive from general psychology (personality and values) whilst others are derived from thinking through a specific issue in consumer behaviour and considering the issue of individual differences (e.g. susceptibility).   To illustrate the range and potential application of individual differences in consumer psychology to questions of detriment, we will review examples of established areas of study here in order to see what they can add to the definition of consumer detriment. This will be followed later in the report by an analysis of the relevant scales as a means of estimating non-monetary consumer detriment or vulnerability to financial detriment.

7.112   In the review of contemporary marketing practices above, we saw that the emphasis on establishing a relationship with consumers over time as part of an integrated campaign suggests the increasing importance of the individual consumer as recipient of marketing communications and as faced with increased choice in consumption. We have seen that the interaction between cognition and emotion plays a critical role in consumers' capacity to make the most of choice. Here we approach these questions from the perspective of individual differences, asking which features of the psychology of the individual might affect their responses to marketing and the structure of the point of sale.

7.113   The study of individual differences also complements the observations made above about the biases in consumer decision-making highlighted by behavioural economics.   The

underlying approach of behavioural economics is to identify general features of information processing strategies that influence consumers' choices and which are open to exploitation in marketing. Individual differences takes a different approach – instead of trying to identify general features of cognition that influence decision outcomes the focus here is on identifying sources of difference between individuals (including cognitive strategies but also motivational and emotional variables).

7.114 Critical issues in relation to emotional, motivational and attitudinal aspects of consumer decision-making are whether the consumer can be involved and critically engaged in consumption so as to pay attention to the detailed comparisons implicit in choice, and whether the consumer can manage to distinguish the emotional attraction of the marketing mix from the potential utility of the offer. This is not framed as a question of consumer literacy in the individual differences approach but as an interaction between persuasive communication and a variety of identified psychological variables that influence the orientation of consumers to decision-making.

Impulsiveness

7.115 Rook (1987) suggests that impulsive buying occurs when a consumer makes a sudden and unplanned purchase initiated in the context of consumption (this now includes teleshopping and online purchases in the context of viewing and browsing) where the decision to buy is accompanied by a powerful urge to consume and associated feelings of pleasure and excitement.

7.116 Verplanken and Heradi (2001) report that impulsiveness correlates with other individual differences measures such as personality. High impulsive individuals have a personality profile of low conscientiousness, low autonomy, low personal need for structure, low need to evaluate, but high extraversion and action orientation.

7.117 Differences between impulse and non-impulse purchase have both cognitive and emotional dimensions: in cognitive strategy the impulse purchaser tends to give greater weight to hedonic motives than to utilitarian motives, which is also related to the heightened emotional arousal with which impulsive purchases are made (Hausman, 2000).

7.118 An issue that researchers have been grappling with is that impulse buying appears to have a "light" fun image related to the hedonic dimension of the consumption experience (Verplanken et al., 2005). However there is cause for concern that these surface aspects of consumer experience disguise a link with more detrimental psychological experiences such as low self-esteem, compulsion and stress. These findings indicate that impulse buying, encouraged by the light positive hedonic feel of the point of sale and by a culture of consumption that emphasises pleasure in consumption is in fact tapping into psychological processes in such a way that consumption becomes part of the self-regulation of these negative experiences.

Consumer Literacy

7.119   The study of consumer literacy or consumer knowledge is a relatively recent innovation, given increased impetus as a result of the increasing exposure of consumers to choice and risk.

7.120   Research also indicates that people are influenced by the social comparisons that they make so that their decisions are not simply the result of individual psychological processes but are strongly affected by trusted firms and experts and by those regarded as having strong opinion leadership status.

Susceptibility

7.121   This leads to the question of consumer susceptibility, which has also been found to vary across consumers so that people are more or less open to the influence of persuasive communication as well as more or less influenced by their reference group.

Values

7.122   We have reviewed basic research on values above. Here the point is that value positions have been studied extensively as the source of variations in consumer behaviour. There has been a great deal of focus on developing reliable scales measuring materialism as a core value in people's lives and relating this to specific consumer behaviours such as the tendency to make impulsive purchases and the relative importance of social and cultural variables in consumer decision making.

Motivation

7.123   Another critical individual differences variable that has been widely studied in consumer psychology is consumer involvement. This measures the level of interest and engagement that consumers demonstrate in relation to different aspects of consumer decision making and experience and is the motivational counterpart to consumer literacy.

7.124   Involvement has been studied as a general measure of engagement with consumption, as related to the level of attention given to the decision process, and is found to correlate with levels of processing in consumer decisions and the ability to make critically informed decisions.

Emotions

7.125   General questions related to the emotional dimensions of consumer experience and decision-making were reviewed above. There has also been a considerable literature examining individual differences in emotions which link experience and decision-making. This has been particularly been demonstrated in the emotional correlates and decision effects of consumers with different attitudes towards the hedonic and the utilitarian aspects of consumption.

7.126   There has also been some recent work related to consumer literacy which develops the idea of emotional intelligence in relation to consumer behaviour.

Individual differences in cognition

7.127   There is an established area of work examining individual differences in **need for cognition** whereby people vary in how much they seek out and engage with information generally. There have been some studies linking this variable to values and consumer decision-making and in addition to the related measure of style of processing (examining preferences for cognitive strategies – for example between schematic and elaborated thinking).

Critical responses to consumer society

7.128   An important dimension of consumer literacy is the ability to recognise when persuasive communications are being used as part of a broader public understanding of marketing and advertising techniques. Individual differences in critical consumer orientation have examined a wide variety of phenomena including general feelings and public opinions towards advertising. Specific studies of variations in scepticism towards marketing communications have been conducted, including in relation to whether people believe the claims made by advertisers.

7.129   These studies of individual differences in critical awareness of marketing methods are complemented by studies of consumer attitudes towards and sentiment towards marketing and consumerism, which link to both the study of values and decision-making styles. There is a history of studies of the extent to which people feel attracted or alienated by the marketplace and related studies of individual differences in associated assertiveness and complaining and linked to variations in consumer satisfaction. Such dimensions of consumer experience and evaluation of the market have been studied under the rubric of **market orientation**.

7.130   Related to these questions of broad orientation and immersion in consumer society have been some studies of the public understanding of the ethics of marketing methods.

Long-term Detriment

7.131   There is a worthwhile distinction to be made between short and long term psychological detriment. Broadly speaking short-term detriment refers to psychological reactions (typically emotions, e.g. stress, unhappiness) in the context of the actual sale or during a complaint process. In contrast, longer term psychological reactions are typically attitudinal which means that they are accumulated beliefs concerning the consequences of a particular behaviour (e.g. buying this product from this supplier) combined with a broad, long term (positive or negative) affective orientation supplemented by habits and associated beliefs (such as the perceived appropriateness of the behaviour). This is an analytic distinction based on psychological theory that does not map easily onto applied studies of consumption – for example, consumer researchers study concepts such as dissatisfaction which covers both short and longer term reactions. So the distinction

between short term and long term here is a distinction between different qualities of psychological experience (e.g. emotional reactions and attitudes) rather than a definition based on any temporal measurement.

7.132　A variety of longer term effects of consumer detriment have been identified in the literature – although they were mainly not identified as forms of detriment (in the sense of outcomes of consumption) but as negative dimensions of consumer experience, or in the case of "happiness" the absence of a positive experience. Some of these can be identified, their sources articulated and their impacts on consumer experience discussed. However, this work is still relatively new and studies tend to describe specific effects rather than presenting a systematic exploration of the causes and consequences of consumer detriment. The approach taken here is to think through potential connections between specific psychological phenomena with the idea of long term psychological detriment in mind.

7.133　For example, in the work on consumer **confusion** repeated experiences of confusion in discrimination between products, especially when the consumer attributes blame to themselves can lead to a reduction in shopping related **self-confidence**. This is a measure related to the idea of **self-efficacy** which is our beliefs about our competence in a given area of social skill and which affects motivation. Linking to the proliferation of consumer choice, the idea is that the consumer develops a set of negative associations with shopping: increased feelings of **stress** and **dissatisfaction** linked to experiences of **dissonance** and resulting in a shopping experience characterised by **dissonance, tiredness and frustration**. In relation to decision making at the point of sale such confusion can lead to the adoption of sub optimal choice strategies in order to simplify the decision process.

7.134　These examples are indications of potential short term effects (related to a change in the shopping experience – both affective and cognitive). In addition, repeated experiences of this kind cumulate, resulting in a **loss of trust**, **feelings of insecurity** and **loss of confidence**. Tykocinski and Pittman (1998) suggest that these response patterns can become habitual and that they can be **domain specific** (related to specific areas of consumption). A consequence of reflection might be a feeling of **regret** which feeds a sense of **inertia** as a **coping strategy** of **avoidance** is adopted – this pattern being more likely for cases of high levels of financial detriment (Avni-Babad, 2003).

7.135　This interpretation of potential links between psychological reactions to confusion suggests the possibility that inactivity in consumption might be the result of **learned helplessness** (Abramson, Seligman and Teasdale, 1978). The tendencies to blame the self for negative outcomes and the perceived instability (unpredictability) in the causes of these negative outcomes can be understood as the adoption of a **negative attributional style** which, particularly under stress, leads to an experience of hopelessness. There has been little work on such phenomena in consumption but a lot of work in the area of health psychology which suggests that the inability to cope with the cognitive demands of decision-making can lead to repeated patterns of dissatisfaction and inertia.

7.136   These potential relations between psychological variables indicate a tendency towards what Lucas (2004) calls **existential regret** – to return to the distinction between short and long-term detriment this is a psychological account of the tendency to repeat patterns that lead to (short term) regret.

7.137   There is evidence, again mainly from work on risk perception in the fields of health and risks in food consumption, that points to a broader social phenomenon that provides the background to these individual detrimental experiences – a culture of anxiety that results from the ubiquitous and democratic nature of risks in contemporary society. Tulloch and Lupton (2003) found that the autonomous and positive consumer was characterised by **suspicion** and **distrust** of government and commerce

7.138   In these examples, the idea is that there is a relationship between short term and longer term psychological detriment in that the latter is both an accumulation of and amplifies the former.   Repeated experiences of confusion and other negative experiences in consumption are seen to potentially lead to the adoption of avoidant coping strategies and a tendency to become less critical in consumption.

Case Studies: The Interaction between Marketing and Consumer Psychology

Case Study I: Psychological Responses to Fraud

Marketing and new media

7.139   The increasing use of new media technologies in marketing strategy exposes consumers to new risks and there is particular concern that consumers might be susceptible to detriment arising from these new methods of marketing.   One feature of the new electronic marketplace is that the transactions take place in the quasi-public realm of the internet and that there might be new asymmetries based on technical expertise in the relationship between seller and buyer. Along with new techniques of engagement and persuasion come new methods of exploiting or defrauding consumers and these have raised concerns in recent years.   A variety of new marketing practices and fraudulent behaviour have been observed:

(a) Phishing – identity capture (by convincing the user that the source is trusted/genuine);

(b) Spear-phishing – individually targeted phishing;

(c) Scams – aimed at getting people to send money on a false pretext;

(d) Pharming – diverting users (e.g. using popups) to sites where phishing or scams take place;

(e) Sugging – the use of research as a marketing tool.

7.140 These activities grew out of a broader range of hacking activities online – which include "viral" attacks on computer software and hardware – but what is new about phishing is that the software does not necessarily attack hardware or software but instead targets the users of computer systems (Downs et al, 2006). One problem is that much of the effort aimed at combating these activities has been derived from defensive strategies developed to combat viruses and Trojans – but here the threat is inducing voluntary behaviour on the part of the user (i.e. by deception or conning) ideally leaving the computer systems and programmes that are exploited intact.

7.141 In this context there is a need to understand what users are doing when they encounter a phishing or pharming attack. Research in this area is just beginning (see Downs et al, 2006; Schneir, 2000) but the early research suggest some patterns whereby certain psychological factors increase vulnerability.

7.142 The attempt to link phishing detection software by ISPs to various tools (e.g. phishing detection toolbars) and warnings have some advantages but cannot guarantee to detect all phishing attacks and there is evidence that many users ignore ISP advice and so do not use the software available (Downs et al, 2006).

7.143 Downs at al (2006) conducted a small scale qualitative study which aimed to find out what distinguishes expert from non-expert users. They found that experts were more sensitive to a range of cues on the originating email or popup which included formatting or certification and content cues. There is evidence that even expert users have difficulty in discriminating legitimate from fraudulent emails and websites – this is not surprising given that expert users deploy a complex set of contingent cues to decide whether to open an email or trust a website.

7.144 Downs et al (2006) found that there were high levels of awareness of risk but that people adopted quite simple content-based strategies to detect the difference between legitimate and spoof emails and websites.

7.145 There is considerable concern over the potential for fraud and deception online and there has also been some work on the use of online advertising. New advertising strategies have been identified (from Millwood Hargrave and Livingstone, 2006):

(a) Branded environments designed to encourage brand loyalty (e.g. advergames);

(b) Relational and "viral" marketing;

(c) The collection of consumer and personal data;

(d) Product placement in online environments.

7.146 These new strategies raise concern over **media literacy** since they are novel and it is possible that consumers' understanding lags behind the development of online marketing techniques.

7.147 Acknowledged difficulties in the regulation of online environments make these new marketing strategies of concern as there is evidence that self-regulatory codes widely used in traditional advertising are often breached in online environments (Carroll and Donavan, 2002).

7.148 This is an emerging area and there is a dearth of research into the reception of advertising in online environments. However, the difficulties of regulation, the innovative advertising techniques deployed and the relative lack of literacy amongst consumers suggest that this is an important area of potential consumer detriment for research and monitoring.

Fraudulent practices

7.149 Langenderfer and Shimp (2001) review consumer vulnerability to scams, swindles, and fraud.

7.150 They report a number of studies on the elderly that have been conducted by the American Association of Retired People (AARP). These suggest:

(a) Older people score higher than younger people on a **vulnerability index** which measured **consumer knowledge** and **openness to appeals**.

(b) **Consumer confusion**: victims of fraud were found to be unable to distinguish fraudulent from truthful claims – this was particularly true of repeat victims.

(c) **Social capital**: victims of fraud were more likely to live alone and less likely to seek advice.

(d) **Control of social interaction**: victims reported not being able to control the interaction with the seller (e.g. they felt unable to put the telephone down in a telemarketing context).

7.151 Being a victim of fraud had more general effects on consumer behaviours which might lead to subsequent financial detriment – for instance, victims report becoming **excessively cautious** consumers as a result of fraud.

7.152 Victims also reported having **low motivation** because the value of the transaction was low. In contrast, when motivation was high people were distracted by the emphasis on reward in telesales interactions.

7.153 Victims also report feeling **out of control** in the interaction and with hindsight that they did not think through the purchase (lack of **cognitive elaboration**). This is consistent with the Elaboration Likelihood model of attitude change.

7.154 Consumers report **regret** and a feeling that the structuring of the interaction at the point of sale led them not to think carefully enough about their purchase decision.

7.155 This example illustrates the **interaction between emotions and decision-making**. This is an example of **dual-process** theory, where **schematic thinking** is given precedence over **elaborated reasoning** which would be required to make a reasonable choice. We could generalise this to the use of **pressure sales tactics** and methods used to **enhance mood** so as to **distract** the consumer from considered, in-depth and deliberative reasoning.

7.156 The factors that combine to make people vulnerable to fraud and scams combine **demographics**, **cognitive factors**, **personality factors** and **short term psychological states**.

Exploitation of social influence by illegal marketing

7.157 Why should the groups identified as vulnerable in consumption be open to exploitation because of their psychology when faced with these subtleties of the context of persuasion in social interaction?

(a) Loneliness: the presentation of the interaction as a responsive, informal social situation – the vulnerability here comes from the difficulty of ending a social interaction. This relates to the visceral cues discussed above and to the idea that they will overwhelm the more judicious and "rational" motivational aspects of the individual's behaviour: the illusion of company wins over the discomfort of coercion.

(b) Politeness: telephone scammers exploit politeness rules in conversation using a variety of means including not offering mutual endings to conversations – one of the main predictors of vulnerability to telephone scams is the inability to put the telephone down. Endings in conversations are managed through mutual agreement: it is as though we need the permission of the other party to agree to end the conversation.

(c) Pre-commitment in social interaction: saying hello to someone creates a form of obligation on the other participant. There are pragmatic rules of social interaction that determine that the contributions of participants in informal conversation establish a rapport between them.

(d) Age: although there is no direct literature on this it seems reasonable to assume that the elderly find it more difficult to contravene social etiquette (of politeness and so on).

(e) Social skill: some dimensions of consumer vulnerability are associated with a profile of various skills, dispositions and behaviours – so that the ability to manage the social situation so as to resist the persuasive intent and assert the consumer's own needs and desires is constrained.

7.158 Aditya identifies antecedent conditions of deception as follows:

(a) Product characteristics:

– Service goods more than manufactured goods;

– Goods that are linked to deep psychological needs (e.g. health related);

– Consumable goods rather than durable goods (because of relatively low impact);

– Low value goods.

(b) Consumer characteristics:

– Being in the market for goods leading to **arousal** and product salience;

– Retention of **implied meanings** in advertising;

– **Knowledge gaps** (review of technical information and critical thinking);

– Personality factors (**shyness** and **introversion**).

(c) Psychological processes in deception:

– **Mood** experiences (induced by advertising);

– **Halo effects** (undue emphasis on positive characteristic of product);

– **Framing effects** and **loss aversion**;

– **Reference dependence**;

– **Fear of retribution**.

The marketing ethics perspective

7.159   The developments in marketing practice discussed above have caused some concern within the discipline of marketing. While persuasive communication, the stock in trade of the marketer, may exploit consumer psychology, pressure selling and relationship marketing place the consumer at a potential disadvantage and have been viewed with more suspicion by practitioners. These concerns have been taken up as issues in marketing ethics (e.g. Kimmel, 2001; Aditya, 2001).

7.160   Issues of marketing ethics have, for example, been raised in regard to the new marketing technologies that the internet makes available. The problem can be simply stated: has internet access for both firms and consumers been to the benefit of consumers, or has it introduced new forms of asymmetry? Certainly, internet access gives consumers considerable potential benefits: it reduces time and effort spent searching for and finding out about goods, and also grants increased access to global markets and hugely enhanced access to information about products. However, recent research has argued that an audit of technological opportunities alone cannot decide the issue, since what is critical is the interaction between the vulnerability/persuadability of consumers and new technology applications in marketing (Aditya, 2001).

7.161   Aditya (2001) suggests a strategy of identifying and classifying **situations** that lend themselves to deceptive and unfair practices and identifying **psychological processes** in consumer behaviour exploited by such practices.

7.162   To meet the challenge of mapping the social and psychological dimensions of deception, Aditya suggests a more inclusive *definition of deception* in marketing:

> "any act, claim, or message that (a) causes at least some consumers acting reasonably to make decisions that they would not otherwise make; (b) leads at least some consumers acting reasonably to believe something about the product, brand, or manufacturer that is not verifiably true; or (c) has the potential to foster distrust of any kind, general or specific, or in other ways cause an erosion of ethical values deemed desirable in society" (Aditya, 2001: 743).

Case Study II: Advertising to children

7.163   Millwood Hargrave and Livingstone (2006) have recently published a monograph on harm and offence in media content, part of which is a review of the role of advertising in harm and offence. This is a recent review of the literature and conceptual analysis, which we use as a basis for thinking through the link between consumer detriment and advertising.

7.164   The case of advertising to children is an interesting one from the perspective of consumer detriment for three reasons:

(a) It involves a vulnerable group;

(b) The potential detriment arises from the effects (particularly the health effects) resulting from consumption;

(c) Detriment arises from over-consumption.

7.165   Advertising has been linked to "pester power" in which children put pressure on parents to buy, thus having a deleterious effect on parent-child relations. This is an example of how advertising feeds into the dynamics of social relationships (in this case between parents and children) to create **conformity pressure** on the consumer. The effect on the children is an example of the use of **social emulation** in advertising.

7.166   In addition, a broader social effect relates to the extensive use of stereotyping in children's advertising, which collaterally reinforces social stereotypes. Content analyses have established the prevalence of gender, age and racial stereotyping in advertising.

7.167   Particular attention has been paid to advertising to children in which gender stereotyping, advertising of unhealthy foods and aggressive media content have been emphasised.

7.168   These issues have been brought into focus in the UK and the US in recent years in response to the increasing number of children who are considered obese or overweight.

7.169   Hastings et al (2003) reviewed the literature on the content and effects of food advertising to children and concluded that the diet represented in advertising fell short of a healthy diet and did have discernable negative effects on children's knowledge of food, their preferences and their consumption choices (Livingstone, 2005).

7.170   Despite the apparent correlation between increasing obesity of children and massive investment in advertising targeted at children by the food industry, many doubts have been raised as to whether there is a causal link between them. Claims for the effects of media in general and of advertising in particular have often been accompanied by scepticism. It is difficult to establish the causal relationship between advertising and consumption, the selective exposure of individuals complicates the causal story, and putative effects operate on different levels of abstraction from specific and direct effects on particular behaviour and from more diffuse cultural effects.

7.171   These arguments cover a range of difficult methodological, conceptual and theoretical issues, as illustrated by the debate over media literacy among children.

7.172   There have been many studies charting the growing media literacy of children as they age. According to Millwood Hargrave and Livingstone (2006):

(a)   Below the age of 5 they find it difficult to distinguish adverts from other programmes;

(b)   By 7 or 8 they can make this distinction reliably but do not necessarily apply this knowledge in the reception of adverts; and

(c)   By the age of 12 they are able to understand the persuasive intent of advertising and have developed sceptical attitudes.

7.173   However, despite the large number of studies conducted, there seem to have been few occasions where a correlation between literacy and susceptibility to advertising has been established. Recently Livingstone and Helsper (reported in Millwood Hargrave and Livingstone, 2006) suggest that the putative process of effect changes over time from peripheral routes to persuasion in young children to elaborated forms of persuasion in older children. These different routes to persuasion argue against a simple formulation of the relationship between knowledge and susceptibility.[75]

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[75]   These arguments are similar to those that have been explored in recent work on vulnerability, where there has been a move away from the identification of vulnerable groups to a focus on the psychological processes that can lead to vulnerability. In each case the capacity of the consumer to overcome these vulnerabilities (literacy) and the potential impact of consumer education are considered.

8   CONSUMER DETRIMENT ARISING FROM MARKET FAILURE

Market Power

8.1   The existence of market power can be a major source of consumer detriment. In this sub-section we provide a definition of market power, we discuss why market power can cause detriment for consumers, what are the factors that give rise to market power and that influence the size of consumer detriment and, finally, the evidence that exists in the economics literature on the welfare loss resulting from market power and the methodologies that can be used to measure it.

How can market power cause consumer detriment?

8.2   Market power can be defined as a situation where firms have the ability to raise prices profitably above some competitive benchmark. If we take, for ease of exposition, as the relevant counterfactual, a perfectly competitive market where many firms produce an homogenous good, there are no externalities and both firms and consumers have perfect information, firms would produce at a price equal to marginal cost. Therefore, market power is in general defined as a situation where firms find it profitable to set prices above marginal cost.

8.3   Putting it differently, and more generally, market power arises whenever a firm faces a downwards sloping demand curve for its product.

8.4   However, although market power can be defined in relation to a firm's ability to raise prices above marginal costs, where it exists it can affect consumer welfare in other ways too. For instance, when a firm has substantial market power – at the limit, monopoly power – there can sometimes be an effect on consumer welfare arising from a reduction in consumer choice. The firm might, for example, delay the introduction of a new product or cut back on research and development (R&D) expenditure. The potential welfare loss due to reduced choice that consumers might suffer as a consequence of market power is considered later in the sub-sections on the dynamic inefficiency of market power, innovation spillovers and sub-optimal product variety.

8.5   It is also worth noting that by increasing prices, a firm with market power might exclude altogether some categories of consumers (e.g. those with the lowest income).

8.6   Figure 8.1 below illustrates how a firm with market power would set its price and why this could entail a welfare loss for consumers and society in general. For ease of exposition, Figure 8.1 represents the simplest but also most extreme form of market power, a monopolist (or a cartel of firms that behaves as a single monopolist) that faces a linear demand curve and that produces with a technology characterised by constant marginal costs.

Figure 8.1: The (Static) Welfare Loss from Monopoly Pricing
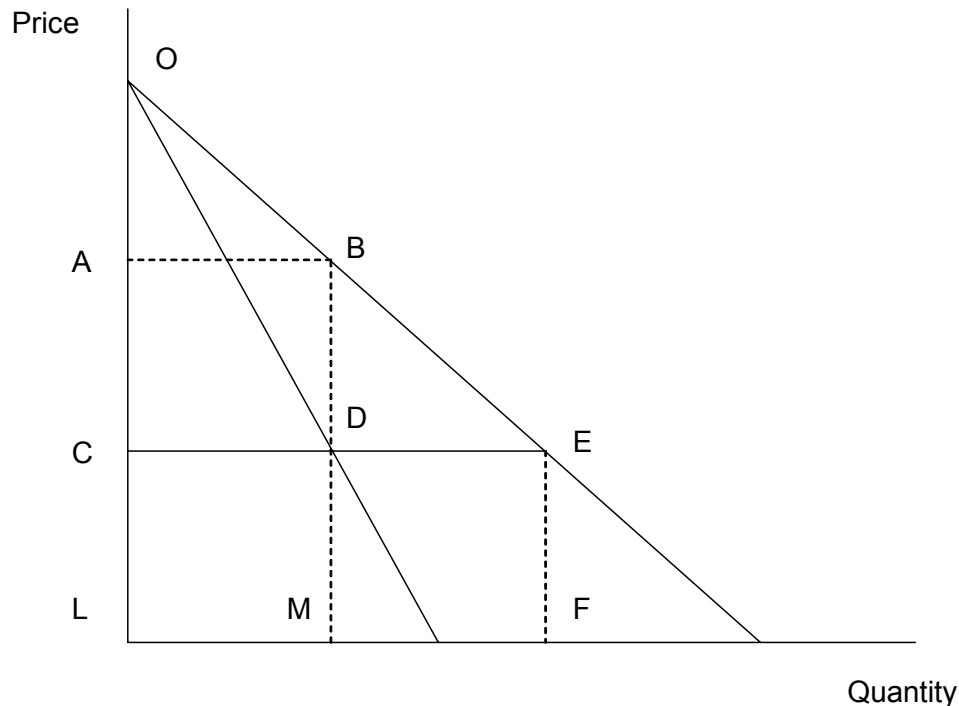
8.7   A firm which enjoys some degree of monopoly power will not face a flat demand curve, as it would under perfect competition where firms are assumed to be price takers. Instead the firm will face a downwards sloping demand curve (shown by the line passing through OE).

8.8   The monopolist will set its price such that marginal revenue (represented in Figure 8.1 by the line passing through OD) will just equal marginal costs (given by the line CE[76]), which corresponds to the price-output pair given by A and M in Figure 8.1.

8.9   By way of contrast, under perfect competition, prices would be set equal to marginal costs, and, therefore, the price-output pair under perfect competition would be C and F.

Welfare effects of market power

8.10   Figure 8.1 could be used to discuss the well known allocative inefficiency of monopoly power which can cause a detriment to both consumers and society as a whole.

8.11   The allocative distortion arises from the fact that the monopoly price is higher than marginal costs: at the monopoly level of output, consumers' willingness to pay for an extra

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[76]   In Figure 8.1 we have assumed, for simplicity, that marginal costs are constant over the relevant output range.

unit of output is higher than the costs society has to bear to provide it (i.e. the marginal cost). As a consequence of market power, prices are higher than in a competitive market and output is lower.

8.12 The welfare effects of monopoly pricing can be examined using the concept of consumer surplus (which is given by the area OAB between the demand curve and the relevant price level, in the case of monopoly) and producer surplus (which is the difference between price and costs times the units of output sold, and which would be zero under perfect competition).[77]

8.13 Intuitively, in the case of a single consumer, consumer surplus is the sum of the difference between the consumer's willingness to pay for the units of output he consumes and the actually price paid for them.

8.14 As it can be seen from Figure 8.1, monopoly pricing entails a welfare loss for consumers, which is equal to the difference between the areas OCE and OAB. Figure 8.1 also shows that this welfare loss for consumers is the combination of a direct monetary transfer to the monopolist, in the form of positive economic profits (area ABDC) plus a component, known as the deadweight loss of monopoly pricing (area BDE) that is due to the allocative distortion imposed by the monopolist and, in particular, by the fact that production is too low with respect to the case of perfect competition (some customers exit from the market).

8.15 In other words, monopoly pricing entails a welfare loss for society as a whole, represented by the deadweight loss. However, consumers face an additional welfare loss, which is given by the monetary transfer to the monopolist.[78]

8.16 There could be further welfare losses from the existence of market power, namely:

(a) The transfer from consumers to producers could be dissipated in *rent-seeking activities* by firms (e.g. expenditure on advertising). If this is the case, any argument that producer rents from market power may be beneficial for innovation, thus leading to indirect consumer benefits (see discussion below), would be weakened.

(b) Market power could lead to *productive inefficiency* due to weaker pressures on firms and managers to avoid slack and to strive for efficiency, and competition is no longer having the beneficial effect of selecting the most efficient firms.

(c) Market power could lead to *dynamic inefficiency* by reducing innovation, although as discussed below there is no conclusive evidence as to whether or not market power is harmful or beneficial for innovation.

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[77] Assuming constant marginal costs.
[78] While it is clear that the monetary transfer to the monopolist is not a welfare loss for society as whole (but see below where we discuss rent-seeking), there can be a debate on whether it is entirely appropriate to consider it as a component of consumer welfare loss together with the deadweight loss (for instance, because firms ultimately belong to individuals and because there could be dynamic efficiency reasons to suggest that some degree of economic profit is desirable).

Market power and consumer welfare from innovation

8.17   Innovation refers to the introduction of new technologies or processes (which reduce production costs and hence prices) and to the introduction of new products or services. As innovation will tend to increase consumer welfare, any effects that market power has on innovation (whether positive or negative) are potentially quite important.

8.18   However, both the theoretical and the empirical literature have not so far provided a clear cut conclusion on the relationship between market power and innovation (Davies and Majumdar, 2002).

8.19   On one side, a monopolist might have low incentives to commit large resources to R&D designed to introduce new techniques and products into the marketplace, as it would consider only the additional profits brought about by the investment, what Arrow (1962) called replacement effect. By way of contrast, in a competitive setting, each firm would strive to become a monopolist, and the investment in R&D would be undertaken provided the total monopoly profits were bigger than the R&D expenditure. In addition, when competition is fierce, firms would tend to invest heavily, to protect themselves from rivals (escaping competition effect).

8.20   However, this view of the incentives to innovate under monopoly has long been contrasted by the "Schumpeterian" view, which considers the large rents generated by a monopolist as the most conducive to investments in R&D.

8.21   Furthermore, Arrow's conclusion that a competitive market structure is more conducive to innovation could be reversed if we consider the (more realistic) situation of a monopolist and a potential entrant that both have to perform R&D to innovate. The intuition of this result is the following. Suppose that the successful innovator is the potential entrant: in this case, it will enter, produce at lower costs and share the market with the monopolist, gaining duopoly profits. If the successful innovator is the monopolist, it will keep its monopoly position, and will have a net gain from innovating equal to the difference between the post-innovation monopoly profits and the duopoly profits it would gain should the entrant be the innovator. However, because a monopolist can always duplicate the pricing and quantity decisions of a duopoly, the monopolist will have a greater incentive to innovate because it can protect the monopoly rents, which are by definition bigger than the duopoly rents.[79]

8.22   As theory does not provide a unique answer to the relationship between market power and innovation, it is unsurprising that the empirical evidence is not clear cut either. However, recent work (for instance, Aghion et al, 2005) found that while a higher degree of market power tends to lower the incentives to innovate, too much competition might not be optimal either: at low levels of competition, the escaping competition effect would tend

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[79]   See Martin (2003) for a survey of models of patents races, R&D and market structure.

to dominate, while at high levels of competition a sort of Schumpeterian effect would prevail, as the incentives for less efficient companies to catch up with the efficient ones would fall. This would tend to suggest that intermediate levels of competition are the most conducive to high levels of innovation.

What factors can give rise to market power?

8.23   We have discussed above why the existence of market power might lead to welfare losses for consumers and society.

8.24   However, we have not discussed what it is that can give rise to market power in the first place. Identifying the conditions that might make it easier for firms to establish and maintain over time a position of market power is extremely important because it can suggest when consumer detriment arising form market power may be present – which can in turn offer valuable insights to the derivation of a set of early warnings indicators, one of the outputs of this project.

Barriers to entry

8.25   In general, we have seen that monopoly and, more generally, market power allow the firms to enjoy some level of monopolistic or oligopolistic rents as they are able to set a price which involves a positive mark-up on top of marginal costs.

8.26   In the medium run, positive economic rents would attract new companies that would find it profitable to bid resources into the sector. Therefore, if some degree of market power persists, it must be the case that there are some entry barriers into the sector that do not allow new firms to enter, undercut the incumbents, and bring down prices in line with marginal costs. Ceteris paribus, the higher the barriers to entry, the more likely it is that firms will be deterred from entering into the market.

8.27   Quantitative or qualitative indicators of barriers to entry could be useful in market monitoring (see sections 17 and 20 and appendix 4), and hence we discuss below the main types of barriers to entry which have been identified.

8.28   In economic theory, different definitions of barriers to entry have been proposed. For instance, Bain (1956) defined entry barriers in terms of the cost advantages which incumbent firms have over entrant firms. Stigler (1968), in turn, proposed a more restricted definition of entry barriers as costs of producing that have to be borne by an entrant but not by incumbent firms, a definition similar to that proposed by Baumol et al (1982), who define barriers to entry as "anything that requires an expenditure by a new entrant into an industry, but imposes no equivalent cost upon the incumbent". Von

Weizsacker (1980) extended Stigler's definition of barriers to entry to include welfare effects.[80]

8.29   In general, we might divide barriers to entry into two main groups: entry barriers which are derived from legal entry restrictions and structural barriers to entry.

8.30   Legal barriers to entry are restrictions put in place by the government in order to restrict entry into particular sectors.[81]   An example is the entry restrictions that are applied in some countries in the case of the retail sector, some legal professions or in the case of taxis. Another example is the intellectual property rights protection that the government grants, for a limited amount of time, to creators of new inventions and ideas and which take the form of patents and copyrights (see later discussion of innovation spillovers).

8.31   Barriers to entry might take the form of structural barriers, i.e. structural features of the industry that impede free entry.   While some structural barriers to entry might be exogenous, i.e. they depend entirely on some structural features of a particular sector (for instance, the existence of high sunk costs which depend on the technology of production) they might well be endogenous (Sutton, 1991), i.e. they might be the result of the interaction between structural features of the sector and deliberate entry deterrence strategies that the incumbents have put in place in order to deter entry into the sector (for instance, large sunk advertising expenditure, or investments in additional capacity that make credible the incumbent commitment to fight entry).

8.32   Economic theory has identified different types of barriers to entry.

(a)   Economies of scale: if an industry is characterised by substantial economies of scale, entry is only likely to be successful and therefore able to threaten the incumbents' position if it happens on a large scale level because at low levels of output unit costs tend to be relatively high. However, according to the definition of Stigler (1968), economies of scale (on their own) might not be a barrier to entry if the incumbent and the entrant have access to the same technology, as the entrant could enter the market on a large scale and produce at low unit costs.

(b)   Sunk costs: in sectors where the entrant has to commit sunk expenditures[82] in order to be able to compete with the incumbents, the incumbents could enjoy market power, because the sort of hit and run entry strategy that would make a market perfectly contestable would not be possible. Sutton (1991) has highlighted that sunk costs might well be endogenous (e.g. investment in R&D or advertising).

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[80]   This normative definition of barriers to entry is based on the idea that a cost differential is a barrier to entry only if its consequence is to reduce the level of welfare.
[81]   There can be different rationales for the introduction of legal barriers to entry (see, for instance, Church and Ware, 2000).
[82]   Sunk expenditures are outlays that cannot be recovered if the firm had to exit from the sector: it could be investments in particular types of capital assets or even advertisement expenditures which are sector specific.

(c)   Absolute cost advantages: incumbents enjoy an absolute cost advantage whenever, at an equal scale of operation, they have lower production costs. This can be the result of having access to a protected technology (e.g. a patent), to cheaper inputs, such as raw materials or particular infrastructures, or even a lower cost of capital.[83,84]

(d)   Product differentiation and switching costs: Bain (1956) argued that product differentiation might constitute a barrier to entry because consumers may have a preference for established brands and products and therefore entrants would have to spend more to attract consumers (see also Martin, 2003). More specifically, switching costs are in general considered an important source of barriers to entry which allow incumbents to retain market power even in conditions of free entry. Switching costs could be due to:

  – The learning costs consumers have to incur to learn about the main features of the entrant's product;

  – The search costs associated with finding a new product;

  – The transaction costs that consumers have to pay to switch to a new entrant;

  – The "advantages" consumers have to give up when switching to a new firm, such as those provided by "frequent flyer" programmes;[85]

  – The existence of "after markets" products that require some degree of compatibility with the "primary" market.

  Switching costs may be due to structural features of a market but may also be the "artificial" result of incumbent companies which try to keep their market power by deterring entry.

8.33   Some barriers to entry may either be unavoidable (e.g. absolute cost advantages) or may result from justifiable regulatory intervention (e.g. regulations which restrict entry to qualified professionals).   However, others may be "unjustified" (e.g. anti-competitive conduct by incumbent or inappropriate regulatory restrictions on entry), and potentially more amenable to policy action.

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[83]   This would be the case if financial markets, for reasons related to asymmetric information, assess entrants as being more risky than established incumbent firms and thus require a higher return from the former. In this case, established firms in capital intensive sectors would be likely to enjoy a competitive advantage and, in that sense, the requirement of large capital outlays would constitute a barrier to entry in the Stigler sense.

[84]   See Demsetz (1982) for a more cautious view of absolute cost advantages as a barrier to entry.

[85]   Carlsson and Lofgren (2004) provide estimates of switching costs for domestic airline routes in Sweden between 1992 and 2002 using the method first proposed by Shy (2002). They found that switching costs could amount to as much as almost 70 per cent of the ticket price.

Other sources of market power

8.34 Earlier we discussed the most important examples of barriers to entry that, alone or in combination with profitable entry deterrence strategies by incumbents, can prevent free entry thus allowing incumbent firms to enjoy market power.[86]

8.35 There are however other sources of market power that are not directly linked to the "classic" barriers to entry.[87] Some examples are:

(a) Raising rivals' costs: this theory, originally advanced by Krattenmaker and Solop (1986) argues that incumbents could try to act in such a way to increase the costs of entrants.

(b) Reducing rivals' revenues: some incumbents could find it profitable to artificially reduce the demand for a competitor product, for instance artificially creating switching costs (see above) or using negative advertising if permitted.

(c) Predatory pricing: there is a large literature on the ability of incumbent firms to artificially maintain their market power through predatory pricing strategies (see, for a survey of the debate, Motta, 2004). However, there seems to be little guidance on markets where predatory pricing might be more likely to arise (with, perhaps, the exception of dynamic industries with significant learning and network externalities).

(d) Network effects: some markets display network effects when consumers derive utility from the number of other consumers that buy the same product or service.[88] This can allow a firm owning the successful standard to exercise market power. Network effects are an example of an externality, and are discussed in more detail later under "Other Market Failures".

(e) Tying and bundling: there is a large literature on the possibility that firms could use market power they enjoy in some markets as a lever to gain market power in other, potentially competitive, markets, by, for instance, tying and bundling goods together.[89]

(f) Exclusive dealing and other vertical restraints: incumbent firms can prevent entry by signing exclusive dealing contracts with retailers. As long as a significant fraction of retailers has signed exclusive long term dealing contracts with the incumbent, entry of new firms might be impeded, because the only available entry strategy for an entrant would be vertical integration that, as long as it entails significant sunk costs, could

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[86] It should however be noted that the existence of barriers to entry might provide incumbents with market power but not economic profits (as in the case of monopolistic competition).

[87] Some of these have been extensively analysed in the literature on entry deterrence.

[88] The benefit can be direct (for instance, the utility one derives from communicating with people using a telephone network, or the possibility of exchanging files that make use of the same software) or indirect (the more people use a particular product, the more likely it is that some complementary product would be developed).

[89] See Whinston (1990), Carldon and Waldman (2002) and Nalebuff (2004) for the conditions necessary for exclusionary tying to be profitable.

make entry less likely. However, exclusive contracts might also have efficiency rationales and that the overall welfare effects is not *a priori* known (Motta, 2004).[90]

(g) Strategic investments. As noted above in the discussion on barriers to entry, firms might decide to invest strategically in additional capacity, R&D, or advertising, to signal their decision to fight entry. However, the impact on consumer welfare of strategic investments might even be positive, at least in the short run, and the difficulties in distinguishing between those investments that would have or would not have been undertaken without the goal of deterring entry makes the overall concept of strategic investment of dubious relevance for competition authorities and for policy purposes (see Motta, 2004).

Market concentration

8.36 The concentration in a market has long been considered as one of the main factors that influences the market power of firms and, therefore, the size of the welfare loss consumers suffer as a consequence of market power. The idea, which traces back to Bain (1951), was that in concentrated industries firms could profitably keep prices higher than they could in sectors with a more fragmented structure.

8.37 This was the so-called "Structure-Conduct-Performance" (SCP) hypothesis, whereby some structural features of the markets, concentration being one of the most important, would affect the conduct of firms in that market, which would in turn affect market performance.

8.38 Given that concentration ratios represent a possible market monitoring indicator (see sections 17 and 20), we consider below how robust the theoretical link between concentration and market power actually is.

8.39 The economic intuition for focusing on concentration could be the following: first, in markets with high concentration levels (and symmetric firms) collusion would tend to be easier to sustain, yielding, ceteris paribus, a relatively high price cost margin (and associated high welfare losses for consumers); second, simple oligopoly models (see next sub-section) suggest the existence of a positive relationship between concentration in an industry and the price cost margin.

8.40 However, the hypothesis that there is a direct and stable cross-industry causality which goes from market concentration to market power can be criticised as too simplistic and potentially misleading for different reasons.

8.41 For instance, some economists (see, for instance, Demsetz, 1973) have argued that both higher market shares and higher profits could well be the by-product of the superior

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[90] For instance, different vertical restraints might have different welfare implications. Furthermore, most vertical restraints seem to

performance of large firms and therefore large firms' high profits rates should be interpreted as higher efficiency of large firms rather than the exercise of market power.[91]

8.42   Sutton (1991) argued that market structure is, to some extent, endogenous: in markets where firms have to incur a fixed sunk cost to enter the market and produce an homogenous product, intense price competition might tend to reduce gross cost margins. This, in turn, might lead to low entry (and the converse could apply in the case of a low degree of competition which, through a high profits rate, could support the presence of a relatively high number of firms) so that intense competition would be associated with relatively high concentration.

8.43   Finally, the contestable market theory, although it relies on some restrictive assumptions that are perhaps unlikely to hold in most cases, has nevertheless pointed out how a concentrated market (at the limit, even a monopolistic one) could yield highly competitive outcomes.

8.44   The more recent theoretical developments therefore seem to suggest that care should be taken in using market concentration alone to gauge the extent of market power (and associated consumer welfare losses) in a particular industry, unless coupled with careful assessments of barriers to entry and the type of competitive interaction among firms that takes place in that particular industry.

8.45   Finally, market power might also arise due to the existence of imperfect information, which we will discuss later in this section of the report.

Modelling the consumer detriment from market power

8.46   In this sub-section we will discuss some of the empirical approaches that have been used in the economics literature to model the consumer welfare loss associated with monopoly power. For simplicity we will start with the case of a monopolistic industry and then we will extend it to a more realistic oligopoly case. We will discuss the measurement of both the deadweight loss and the consumer welfare loss.

A monopoly model

8.47   The deadweight loss (DWL) from monopoly can be measured as $\frac{1}{2}dpdq$, where dp and dq are the differences in price and quantity levels between monopoly and perfect competition. This can be re-written as:

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[91]   harm welfare especially when firms have strong market power (Motta, 2004).
       See Martin for a survey of Structure-Conduct-Performance literature in the last fifty years.

$$DWL = \frac{1}{2} dp dq \frac{dp}{dp} \frac{p}{p} \frac{q}{q} \frac{p}{p} \qquad (1)$$

8.48   Assuming, as in Figure 8.1, that marginal costs are constant at a level of c, $dp = p^m - c$, where p^m are monopoly prices.[92] Defining the market elasticity of demand $\varepsilon = \frac{dq}{dp} \frac{p}{q}$, equation 1 above can be shown to be equal to:

$$DWL = \frac{1}{2} L^2 \varepsilon p^m q^m \qquad (2)$$

8.49   where $L = \frac{p^m - c}{p^m}$ is the Lerner index of market power, which tells us by how much prices exceed marginal cost.

8.50   If we assume that the monopolist maximises profits, then it can be shown that $L = \frac{1}{\varepsilon}$, i.e. the Lerner index of market power depends negatively on the market demand elasticity: the more elastic demand is, the lower the opportunity for the monopolist to rise prices above marginal costs. Substituting the expression for the Lerner index into equation 1, we obtain an expression for the monopoly deadweight welfare loss (Cowling and Muller, 1978) in terms of the monopolist's profit (Π^m):

$$DWL = \frac{1}{2} L p^m q^m = \frac{1}{2} \frac{p^m - c}{p^m} p^m q^m = \frac{1}{2} (p^m - c) q^m = \frac{1}{2} \Pi^m \qquad (3)$$

8.51   In terms of industry turnover (or economy GDP), the deadweight loss could be computed as:

$$DWL = \frac{1}{2} L \frac{pq}{pq} = \frac{1}{2} \frac{\Pi^m}{pq} = \frac{1}{2} \frac{1}{\varepsilon} \qquad (4)$$

8.52   Equation 3 shows that the deadweight loss of monopoly power is simply one half of monopoly profits, and that, in terms of industry turnover (or GDP in the case of the total economy) it is equal to one-half the Lerner index or one-half the inverse of the demand elasticity.

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[92]   The assumption of constant marginal costs allows the deadweight welfare loss to be approximated by the triangle BDE in Figure 8.1. On the other hand, if marginal costs were increasing, the deadweight loss would have an additional component, and the formula used above would not capture it.

8.53   As noted by Davies and Majumdar (2002) in their report to the OFT, the computation of the deadweight loss is fraught with difficulties for applied researchers as one either needs an estimate of the elasticity of demand in each sector to compute a sector specific deadweight loss, or one needs to make an assumption about the average mark-up for each sector of interest.

8.54   However, the direct computation of mark-ups from accounting cost data is very open to criticism, as marginal costs are often not constant (and therefore cannot be derived from accounting information) and, as we have discussed above, some profits could well be the result of superior efficiency rather than simple monopoly rents.

8.55   The total consumer welfare loss is the sum of the deadweight loss plus the rectangle ABDC in Figure 8.1, i.e:

$$TCWL = \frac{1}{2}\Pi^m + (p^m - c)q^m = \frac{3}{2}\Pi^m \tag{5}$$

8.56   In terms of sector turnover, total consumer welfare loss could be expressed as:

$$\frac{TCWL}{T} = \frac{3}{2}\frac{p^m - c}{p^m} = \frac{3}{2}\frac{1}{\varepsilon} \tag{6}$$

8.57   The same issues we discussed previously in relation to estimation of the deadweight loss also apply to estimation of the total consumer welfare loss.

8.58   As equations 4 and 6 show, both the deadweight loss and total consumer welfare loss, as a fraction of turnover, are a decreasing function of the market elasticity of demand: the more elastic the demand elasticity is, the lower the deadweight and total consumer welfare losses due to monopoly power.[93]

Cournot model

8.59   The assumption that the economy or a particular sector is dominated by a single monopolist is of course an extreme one, unless one thinks that a particular sector is dominated by a powerful cartel which reproduces, even in the presence of more than one firm, the monopolistic outcome.

8.60   A more realistic picture of reality is one where the overall economy (or a particular sector) is populated by many firms and these firms compete with each other. Different economic

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[93]   In absolute terms, some care is needed. In fact, the absolute value of the deadweight loss depends both on the Lerner index, which varies negatively with the elasticity of demand, and the quantity distortion, which varies positively with the elasticity of demand. Therefore, as shown in Tirole (1988), for some plausible demand function, it is possible that the relationship between deadweight loss and demand elasticity is not monotonic. It can also be noted that with a perfectly rigid demand function, the deadweight loss would be zero, but consumer surplus would be entirely appropriated by the monopolist.

models of oligopolistic interaction among firms could be constructed, depending on the assumptions about firms' cost structure, the products they sell (homogenous or differentiated) and the nature of the competitive interaction between them. These oligopolistic models assume that the number of firms is fixed and then assume a particular competitive interaction between companies and describe the outcome of the oligopoly game in terms of prices, profits and margins.

8.61 A fairly simple model of oligopolistic interaction where identical firms sell a homogenous product and maximise their profits by setting the output quantity is the Cournot model.[94]

8.62 In the Cournot model the Lerner index of market power, for each of the n firms in the market, can be expressed as: $L_i = \dfrac{s_i}{\varepsilon}$, where s_i is the market share of firm i (which is identical for each firm given our simplifying assumption of homogenous product and identical firms) and ε is the market elasticity of demand. The industry (or economy-wide) Lerner index can be expressed as $L = \sum_i \dfrac{s_i^2}{\varepsilon} = \dfrac{HHI}{\varepsilon}$, where $HHI = \sum_i s_i^2$ is the Hirschman-Herfindahl index of concentration.[95] This is an important result, because it provides some theoretical support for using the HHI as a market monitoring indicator (see sections 17 and 20), although it should be borne in mind that the Cournot model relies on assumptions which may not apply in many markets.

8.63 Substituting this expression for the industry Lerner index in equation 4 above gives an expression for deadweight loss in the Cournot model (as a function of industry turnover):

$$\frac{DWL^C}{T} = \frac{1}{2}\frac{HHI^2}{\varepsilon} = \frac{1}{2}HHI * L \qquad (7)$$

8.64 In the monopoly case, HHI would be equal to one, which yields directly equation 4.

8.65 Similarly to the monopoly case, the expression for total consumer welfare loss, as a function of industry turnover, is simply the deadweight loss plus supernormal profits (as a function of industry turnover):

$$\frac{TCWL}{T} = \frac{1}{2}\frac{HHI^2}{\varepsilon} + \frac{\Pi}{T} = \frac{1}{2}\frac{HHI^2}{\varepsilon} + \frac{HHI}{\varepsilon} = \frac{1}{2}HHI * L + L \qquad (8)$$

8.66 We can thus see that the Cournot oligopoly model shows a positive relation between the degree of concentration in a market and the consumer welfare loss associated to market power: the more a market is concentrated, the higher the welfare loss. Conversely, less

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[94] Under some conditions, the model is equivalent to an oligopolistic setting where firms first choose capacities and then prices.
[95] The Hirschman-Herfindahl index of concentration depends both on the number of firms as well as the variance of market shares.

concentrated markets would entail lower welfare losses, as the increase in the number of (symmetric) firms would act as an increase in the residual demand elasticity that each oligopolist faces, thereby reducing the extent to which it can raise prices over marginal costs. At the limit, if there were not barriers to entry, market power would disappear, prices would be set equal to marginal costs and there would be no welfare loss.[96]

8.67   However, as we pointed out earlier, as the Lerner index depends on concentration, it might well be that concentration depends on the Lerner index, therefore we should be careful in mechanically associating highly concentrated markets with markets where there is not enough healthy competition and, therefore, large welfare losses.

Other oligopoly models

8.68   The Cournot model is not the only model of oligopolistic interaction among firms.

8.69   Another well-known model is the Bertrand oligopoly model, whose main difference with respect to the Cournot one is that firms are assumed to compete by setting prices rather than quantities: however, in the case of firms selling homogenous products the Bertrand model is well known to yield the competitive outcome (i.e. prices equal to marginal costs) with the associated welfare level.[97,98]

8.70   It is very difficult to know which oligopoly model is more suitable to be applied in practice. However, it is possible to show that the Cournot model is a special case of a more general oligopoly model, for which the Lerner index would be: $L_i = \Theta_i \dfrac{s_i}{\varepsilon}$, where Θ_i is a parameter which reflects firm i's conduct in the market and could be interpreted as the firm i's conjectured change in industry output as its own output changes (Martin, 2003): a value of one corresponds to the Cournot model, a value of zero to the Bertrand model and, in the case of a symmetric duopoly, a value of two to a case of a cartel that sets the monopoly price. While a value for Θ_i should be estimated, some studies have just made some assumptions on it on the basis of previous studies: specifying the Lerner index on the basis of the above more general formulation might allow an assessment of how sensitive the estimates are to the specified oligopoly game.

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[96]   This is true in this simplified setting: if the firms were to incur a fixed cost to enter the market, under free entry conditions the profits would be bid down to zero but prices would still be higher than marginal costs, suggesting that firms would be enjoying market power but no monopoly profits.

[97]   If it is assumed that there are some capacity constraints, then it is possible to show that the competitive outcome would not arise even in the Bertrand model. Similarly, if the firms are different (i.e. they have different marginal costs), then the most efficient firm would enjoy some degree of monopoly power also in the Bertrand model.

[98]   In the case of oligopolistic firms selling differentiated products, both the Bertrand and Cournot models produce outcomes that depart from competitive ones.

8.71 If each firm has the same parameter Θ_i and we take a weighted average of the each firm's individual Lerner index, we can get an expression for the industry level Lerner index:

$$L = \Theta_i \frac{H}{\varepsilon}.$$

A conclusion

8.72 In this discussion we have tried to provide a framework for measuring consumer and society welfare losses caused by monopoly power. However, we have to note that the modelling framework we have briefly discussed refers only to the allocative distortions imposed by market power. In other words, we have not modelled the welfare losses stemming from productive and dynamic inefficiency.

8.73 Next, we will discuss some of the most recent empirical evidence that is available concerning the consumer savings arising from the work of competition authorities.

Empirical estimates of consumer savings arising from competition authority work

8.74 There have been some recent studies that have sought to provide a measure for the welfare gains for consumers deriving from the enforcement of competition policy rules which, although they do not provide a measure of the total consumer welfare loss due to market power, can nevertheless provide an useful benchmark for the actual size of the consumer detriment that consumers suffer from the existence of market power.

8.75 For instance, Crandall and Winston (2003) carried out an assessment of recent merger policy based on price-cost margins across industries. They worked on the assumption that although there are measurement concerns with using price-cost margins, greater market power should increase them, ceteris paribus.[99] For the dependent variable they used price-cost margins from 1984 to 1996 for 20 US manufacturing industries. In their regression price-cost margins are assumed to be influenced by court based outcomes, second requests for information and industry characteristics. The court based outcomes included are the number of successful and unsuccessful merger challenges as well as the number of consent decrees reached by the government and the firms proposing to merge. The sample also contained second requests for information which may have discouraged some of the proposed mergers from moving forward. They also included a number of industry characteristics, including the import-sales ratio, to control for foreign competition; and the capital-sales ratio, to control for technology. If antitrust interventions against mergers were benefiting consumers the successful challenge of a merger or negotiation of a consent decree should cause price-cost margins in an industry to fall from what they would have been. However, if antitrust investigations focus on mergers with

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[99] See however our brief discussion above on inter-industry studies on the drawbacks of using cross-industry studies to assess the existence of stable relationships between concentration and profitability.

efficiency effects, price-cost margins should rise following the successful challenge of a merger because the proposed merger would have reduced firms costs.

8.76 The authors stated that the coefficients of the court-based outcomes suggest that merger enforcement policy is primarily undermining mergers that would enhance efficiency, rather than protecting competition. They concluded that efforts to block particular mergers or to affect a merger's outcome by only allowing it if certain conditions are met have not been found to systematically increase consumer welfare, and in some instances the intervention may have reduced consumer welfare.

8.77 Crandall and Winston (2003) also cited previous empirical evidence (e.g. Newmark, 1988; and Sproul, 1993) which would seem to show that retrospective assessments of collusion cases have failed to find much direct benefit from curbing alleged instances of collusion.

8.78 Crandall and Winston's results were however questioned by Werden (2003), who claimed that Crandall and Winston's paper ignores a large amount of the evidence supporting two core elements of antitrust policy – criminal prosecution of cartel activity, and challenging anticompetitive horizontal mergers.

8.79 In particular, Werden (2003) argued that the empirical evidence reviewed by Crandall and Winston (2003) on the price effects of cartels and mergers was highly selective. Werden (2003) stated that Crandall and Winston (2003) only cited one study of the price effects of criminally prosecuted cartel activity – Sproul (1993).

8.80 He also pointed out several flaws in the Sproul study, including that the price series data used by Sproul were unsuitable to the task because they typically included so much in addition to the cartelised market that the effect of the cartel was easily lost. Furthermore, as noted by Werden (2003), there are many other relevant studies not reviewed by Crandall and Winston that led to different conclusions, such as those of Porter and Zona (1999) and Lee (1999).

8.81 Davies and Majumdar (2002) reviewed the empirical evidence on the subject which seems to confim the main conclusions of Koyak and Werden (1993) who found that, for the US, the evidence seems to suggest that the existence of a cartel had in general led to price increases in the order of 10-20 per cent, sometimes even more.

8.82 Nelson and Sun (2002) have reviewed the estimates of consumer savings from merger enforcement carried out by the US Federal Trade Commission (FTC) and Department Of Justice (DOJ).

8.83 The FTC and DOJ both use direct estimates of consumer savings when reliable estimates are obtained during the course of their investigations. In other cases, they estimate consumer savings by multiplying the sales in markets where they opposed mergers by an estimate of the price increase that would have occurred in the market if the merger had gone ahead. The two agencies estimate the post merger price increases in different ways.

8.84   The FTC estimated that its merger enforcement actions in the fiscal year 1999 saved consumers from paying $1.2 billion in higher prices. In most of these cases the FTC estimated the price increase that would have occurred if mergers had gone ahead using a 1 per cent multiplied by sales methodology. The geographic and market definitions that were asserted in complaints were used to measure sales levels. Sales levels were then multiplied by 1 per cent to estimate consumer benefits. These benefits were then doubled under the assumption that the anticompetitive effect would have lasted at least two years.

8.85   The DOJ calculated that its merger enforcement efforts saved consumers at least $4.094 billion in fiscal year 1998 and $2.551 billion in fiscal year 1999. To estimate the volume of commerce in a market the DOJ uses information from investigative and public sources. Unless it believes that they are not applicable, the DOJ predicts post merger prices using oligopoly models. In order to estimate the price increase, the DOJ uses two different approaches. The first approach which is used to estimate price changes in homogenous product markets uses a formula which is derived from a standard Cournot model. The second approach which is used to analyze differentiated product markets involves the use of simulation models that assume specific demand systems, constant marginal costs and Bertrand pricing behaviour.   Unlike the FTC, the DOJ limits its savings to a one year period.

8.86   Nelson and Sun (2002) identify a number of shortcomings of the FTC and DOJ's methodologies (that, to some extent might apply to similar studies conducted by competition authorities elsewhere):

(a)   First of all, both the FTC and the DOJ assume that all mergers that were stopped would have had an anticompetitive effect.

(b)   Second, the agencies' savings estimates focus on the benefits arising from specific mergers investigations and do not take account of any deterrent (both positive and negative) effects resulting from the agencies' merger policies.

(c)   In addition, the methodologies assume that all consumers that bought the product at the lower pre-merger price would continue to buy it at the higher post-merger price. The DOJ's use of models containing a large number of assumptions to estimate the percentage change in market prices could lead to biases. For instance, the FTC does not adjust its GPRA estimates to reflect the differences in unilateral and coordinated effects cases.

(d)   Further, stopping a merger that would have led to a price increase in only one product's price would lead to a smaller consumer benefit than stopping a merger that through coordinated effects would have led to a comparable price increase for all consumers.

(e)   Finally, the agencies' estimates rarely include any estimates of benefits/detriment to consumers resulting from the effects of competition on innovation. These effects could be positive if competition leads to the development of improved products;

alternatively effects could be negative if merger policy discouraged efficiency-enhancing mergers.

8.87   In conclusion, competition authority studies identify substantial welfare gains form competition authority work, even if the methodologies used and the assumptions made to derive the results are often not robust enough to allow for generalisation of the results.

Information Problems

8.88   Consumers might experience detriment for reasons related to the existence of imperfect information.

8.89   The perfect competition paradigm is based, among the other things, on the assumption that economic agents (firms, consumers, workers) have perfect information on all variables that play a role in their decisions: for instance, consumers are assumed to know everything about prices and quality of the goods they are interested in (as well as of other substitute and complement goods) and about the terms of trade (location of supplier, date of delivery, etc.). If some uncertainty exists, perfect competition theory assumes that economic agents can diversify their risk using fully efficient insurance and future markets.

8.90   However, in reality, some information might not be available or it might be simply too expensive to collect or too complex to process, so that consumers often need to make their purchase decisions under conditions of imperfect information.

8.91   Given that information is costly to collect and sometimes also to process, a rational consumer would not be expected to collect or analyse all the necessary information.

8.92   When faced with the decision of buying a product, a rational consumer will try to improve his imperfect knowledge about the relevant product features (e.g. his initial beliefs on the distribution of prices and quality, the quality and level of after sales services, the conditions written in the purchase contract, etc) by collecting and analysing information until the marginal benefit of doing so becomes greater than the marginal cost.

8.93   This means that, for a wide variety of situations, the quantity and quality of information that a rational consumer should have after a search process has been conducted is likely to be lower than the level that would arise in a situation of perfect information. In particular, this will be the case when the search costs are substantial.

8.94   Furthermore, it is even possible that, for some individual categories of consumers and products, the amount of information on which consumers base their purchase decisions might even fall short of the level of information that a rational consumer could be expected to have, either temporarily (e.g. in the case of products for which the learning process takes time) or even "in equilibrium" (for instance when consumers have bounded

rationality or when the supplier provides false information on product quality or in the case of credence goods, for which the process of updating consumers' initial information cannot take place).[100]

8.95   For this reason, it is conceivable that some consumers might suffer a detriment because they might end up not buying the cheapest product available in the market (given the level of quality); or buying a product that did not really suit their need; or under- or over-estimating the quality of the purchased product.

8.96   For instance, consider the case of a consumer who buys a financial product with a high return-high risk profile: if properly informed on the quality of the financial product he bought, the consumer should not complain about the possibility that, ex-post, the return was lower than expected. In other words, down-side risk, if properly factored by the consumer into his or her decision-making process, should therefore not result in consumer detriment. In other words, the absence of perfect foresight *per se* should not necessarily lead to consumer detriment.

8.97   Before turning to analyse the circumstances in which information problems are likely to cause welfare losses for consumers, it might be useful to discuss the difference between imperfect and asymmetric information.

8.98   Imperfect information refers to a situation where the amount of information available to an individual falls short of some ideal benchmark (e.g. full information or the amount of information it is rational to have, after factoring search costs into the analysis).

8.99   On the other hand, asymmetric information refers to situations where the level of information is distributed asymmetrically between the parties. While the existence of a situation of asymmetric information entails that, at least for one of the parties, information is imperfect (and therefore asymmetric information involves imperfect information), it is entirely possible that there might exist cases when information is imperfect but symmetric across economic agents.

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[100]   See, for instance, London Economics (1997).

8.100   Asymmetric information is usually the correct theoretical framework to address information issues related to situations where consumers have imperfect information about the quality of products: in general, producers know the quality of their products, while this is not necessarily the case for consumers, especially in the case of credence goods, when consumers cannot verify the quality of the product or service they have bought even after consumption. While in some cases this might not constitute a problem, because the market could provide firms with the right incentives to supply correct information on quality, there might be situations where market mechanisms may not work properly and consumers might suffer a detriment.

8.101   There are, however, information-related problems where asymmetric information is not responsible for the welfare losses suffered by consumers. One such case is the consumer detriment that might arise from the fact that, because of the existence of search costs, consumers might not end up paying the lowest possible price in the market.

8.102   In the next sub-section we will analyse in some detail how information problems can give rise to consumer detriment: in particular, we will discuss consumer detriment caused by imperfect information on prices and quality separately, given the somewhat different economic issues that surround them. In particular, we will seek to analyse under which circumstances consumer detriment arising from imperfect information problems might be important and which are the factors that can give rise to imperfect information. We will also discuss two approaches that have been proposed to model consumer detriment arising from imperfect information on either quality or prices. Finally, we will discuss some of the empirical evidence on consumer detriment due to imperfect information problems that is available in the economic literature.

How can imperfect information cause consumer detriment?

Imperfect information on prices: some issues.

8.103   We noted above that, in the absence of search costs, rational consumers would search to find the best deal (i.e. the lowest price) in the market. However, searching is not costless and therefore consumers, before buying, compare the marginal benefits and the marginal costs of additional searching and, as a result, they might make their purchase decision with a level of information that falls short of a perfect information economy.

8.104   The fact that consumers may not always search for the best possible deal will result in firms having some degree of market power because they will not lose all their customers should they raise the price they charge for the product (in other words, the demand curve they face is not horizontal, as it would be under perfect competition, but negatively sloped).

8.105   Economic theory has highlighted the detriment which can result from imperfect consumer price information since the seminal contribution of Stigler (1961).

8.106   Diamond (1971) argued that, in an economy populated by identical firms and identical consumers facing identical small search costs, the firms would end up charging the monopoly price and no price dispersion would arise.

8.107   Subsequent research has shown that, when consumers have different search costs or when firms have different cost structures, the existence of search costs would give raise to price dispersion, i.e. to the coexistence of different prices for a homogenous product.[101] For instance, Salop (1977) has shown that a monopolist would find it profitable to charge higher prices to consumers with high search costs and lower prices to consumers with low search costs.[102]

8.108   Hunter et al (2001) note that it is difficult to identify, in the literature, a clear and robust relationship between prices and consumer search costs.

8.109   For instance, it might be conceivably expected that, under conditions of free entry and identical consumers, the outcome of a market with search costs would resemble that of a monopolistic competitive industry, where free entry ensures that firms do not enjoy positive profits but prices are still higher than marginal costs. As noted in London Economics (1997) this outcome would indeed be worse than that characterising conventional monopolistic competitive sectors, as in the latter case the higher prices (with respect to perfect competition) consumers have to face would be at least counter-balanced by an increase in variety.

8.110   However, a paper by Salop and Stiglitz (1977), later refined by Sadanad and Wilde (1982) and Rob (1985), has shown that, if search costs are low for a sufficiently high fraction of consumers, then the competitive price would prevail.

8.111   By way of contrast, if search costs are high, then monopoly pricing would tend to emerge and, for intermediate cases, there would be price dispersion between the monopoly and the competitive level.

8.112   Hunter et al (2001) note that, in general, one might expect than, on average, higher search costs should be associated to higher prices.[103]

8.113   This is because when search costs are high, the expected gains necessary to "convince" consumers to undertake additional search should be relatively large: as a result, the

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[101]   See, for instance, Reigenbaum (1979) and Rob (1985) who focused on differences in firms' production costs, and consumers' search costs, respectively, or McMillan and Morgan (1988) who focused on differences in buyers' information due to different exposure to advertising.

[102]   Delgado and Waterson (2003) argued that, in some sectors, the degree of vertical integration might play a significant role in explaining price dispersion. They provide empirical estimates of price dispersion for the UK retail tyre market using about 600 observations of prices of different brands of the same type of tyre. Their estimates show that, ceteris paribus, retailers owned by manufacturers tend to price their own brands significantly below rival retailers owned by other manufacturers and that retailers owned by manufacturers tend to price other brands' tyres higher than independent retailers.

[103]   See also Barron et al, 2004, for a discussion of how this prediction tends to arise in different theoretical settings.

elasticity of demand for each firm in the industry would tend to be low, leading, ceteris paribus, to higher prices.

8.114   Secondly, in some types of model (e.g. Varian, 1980) higher search costs could be interpreted as an increase in the proportion of buyers that are uninformed, which can increase the incentives for firms to raise prices.

8.115   We might also note that each consumer would make his or her decision on the optimal level of searching on the basis of his or her private costs and benefits deriving from additional search: however, the intensity of search exerts a positive influence on the competitive pressure felt by each firm. In other words, by not searching enough, each consumer imposes a negative externality on the other consumers which suggests that the market might not provide an efficient level of search.

8.116   The market failure in this case arises from the public good nature of information: consumers are not taking into account the fact that, by not searching enough, they may enable firms to increase prices, which in turn would result in consumer detriment for other consumers and not just for themselves.

8.117   The nature of the market failure could suggest that the government might try to encourage search by, for instance, disseminating information that individual consumers might find hard (or too expensive) to collect or to analyse. In addition to this, the government could require firms to follow certain practices aimed at reducing search costs for consumers: for instance, Waterson (2003) suggests that firms could be required to mark prices clearly "on or adjacent to the point of sale", because that would reduce search costs "compared with a situation where suppliers do not mark prices."[104]

8.118   The existence of significant search costs can therefore have the effect of helping the incumbent firms to gain a position of market power which would result in welfare losses for consumers, as the analysis developed earlier made clear.

8.119   It is also possible that incumbent firms might use their market power to increase search costs and extract some additional surplus from consumers.

8.120   For instance, as shown in Salop (1977), firms with market power could exploit the possibility that consumers have different search costs by creating "artificial noise" in order to allow price discrimination (i.e. charging higher prices to consumers with high search costs).[105]

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[104]   It is important, however, to bear in mind that in some sectors increased price transparency might make collusion easier to sustain and, therefore, result in consumer detriment.

[105]   Imperfect information could have distributional consequences. In the case of imperfect information in prices, it is likely that richer people tend to have higher searching costs (on the assumption that their time is worth more) and that therefore they would be the most affected (in absolute value) by policies aimed to reduce searching costs. However, when there is imperfect quality

8.121   An example of this "noise strategy" would be for a firm to try to make it harder for consumers to find discounted products, relying on the fact that only consumers with low search costs would look for those.

8.122   Another example might be not making clear the total cost of a product: this could be the case for products where a secondary (or "after" market) is important but consumers do not realise it because of bounded rationality (see section 10) or because the firm selling in the primary market intentionally does not make it clear.   While price information could be accurate for the "primary product", it might be less so for the "secondary" product (London Economics, 1997).

8.123   Another example of artificial noise created by firms to extend or create market power might be the use of fictitious price comparisons.   If consumers are less informed than companies on the price distribution, it is possible for the latter to persuade consumers not to search as intensively as they would have done.   For instance, Ireland (2002) has built a model where he shows that firms, by trading under different brands, might reduce consumers' search intensity, and that, in general, prices tend to increase when price comparisons become more difficult.

8.124   In general, it is difficult to establish a strong relationship between the degree of price dispersion, the average price and the intensity of competition (for instance proxied by the number of sellers).   For instance, Stiglitz (1987) noted that - provided consumers know the distribution of prices but not the "location" of specific prices - an increase in the number of sellers might increase search costs and, therefore, price dispersion.

8.125   Other search models, like that proposed by Carlson and McAfee (1983), suggest that an increase in the number of sellers would tend to reduce the average price but to increase price dispersion.

8.126   Varian (1980) argued that in a market with two groups of consumers - one with low costs that visits all stores and one with high costs that visits just one store - the only market equilibrium is one in mixed strategies, with sellers randomising between a high and a low price.   In this framework, an increase in the number of sellers is likely to lead to an higher price and in increased price dispersion, because an increase in the number of sellers reduces the likelihood that any given price would attract the informed consumers, which in turn reduces the attractiveness of charging low prices (to attract the informed customers). Furthermore, simulations of the Varian's model suggested that even the dispersion of prices could increase with the number of sellers.

8.127   On the other hand, Barron et al (2004), building on Perloff and Salop (1985), show that in a monopolistic competitive framework, an increase in the number of sellers leads to the

information, it is possible that less educated people and, in general, poorer people, would gain more from policies meant to increase the information on products' quality.

perhaps more intuitive result of a reduction in both the average price and in price dispersion.[106]

8.128   The examination of the theoretical literature does not therefore lead to a clear relationship between search costs, the level of prices and the number of sellers.

Imperfect information on prices: a possible modelling strategy

8.129   Hunter et al (2001) have proposed a model to estimate the welfare loss consumers suffer when they have imperfect information on the level of prices. Hunter et al (2001) note that, ideally, the measurement of consumer detriment arising from imperfect information on prices would be based on information on the prices and quantity that would prevail under perfect information.

8.130   However, this would require the derivation of a robust theoretical relationship between prices, quantities and the level of imperfect information, which in turn would require having robust and precise estimates of the distribution of search costs among consumers and of how much their willingness to shop around is affected by search costs.

8.131   Therefore Hunter et al (2001) make the simplifying assumption that, in the case of perfect information on prices, the market would be competitive. Therefore they assume that the current level of marginal (or average) costs is indicative of the prices that would be set under perfect information. This amounts to assuming that search costs and the resulting imperfect information are the only determinants of market power and, therefore, the major source of consumer detriment.

8.132   In their model, they assume that the economy is populated by n identical profit maximising firms and that prices under perfect information are equal to marginal costs. Under these assumptions they build a measure of consumer detriment: intuitively, consumer detriment arises under imperfect information in prices because some consumers end up paying a price higher than under perfect information, and because the number of units bought from each consumer is likely to be lower (because the price is higher).

8.133   It is interesting to note that this analysis is very similar to the traditional approach to measuring the deadweight loss and consumer losses brought about by monopoly power as exemplified in equation 4 above. Hunter et al (2001) in fact show that, in the case of a monopoly, consumer detriment is simply the deadweight loss of monopoly plus monopoly profits, i.e. 3/2 of monopoly profits.

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[106]   This happens when consumers face different search costs and when firms have different marginal costs.

Imperfect information on prices: a conclusion

8.134   We might note that consumer detriment in the case of price dispersion arises due to the existence of search costs that can help firms to enjoy a position of market power.

8.135   However, the very existence of market power might enable firms to artificially increase search costs, in order to increase their market power or as a discrimination device to extract surplus from consumers. Market power can therefore be both the product and the cause of high search costs and, therefore, consumer detriment.

8.136   Furthermore, in the economics literature a consensus does not yet appear to have emerged on the correlation between number of sellers and the equilibrium distribution of prices (see, for a discussion, Barron et al, 2004). For instance, it might well be possible that, if consumers know the distribution of prices in the market, but not the location of specific prices, then a higher number of sellers might even increase search costs for consumers and lead to more price dispersion (and higher welfare losses for consumers).

8.137   Where products are sold in primary markets which are associated with secondary markets firms may be able to "fool" those consumers that tend to pay more attention to the primary market.[107]

8.138   Finally, the existence of significant price dispersion for fairly homogenous products could be seen, in first approximation, as a reasonable indicator for markets where imperfect price information might create consumer detriment, even if the direction and desirability of policy intervention is not clear cut.[108]

Imperfect information on quality: some issues

8.139   Consumers can also have imperfect information on the level of quality: for instance, consumers might have an imperfect knowledge of the probability of a product's failure, or they might overestimate the quality of the product, or they might not be able to verify some of the products' attributes that are claimed by the seller.

8.140   If markets are competitive, in the case of search goods (i.e. products whose quality can be verified before purchase, say through inspection) it could be thought that firms might have the right incentives to supply quality information to consumers since a firm that does not supply the relevant amount of information would be driven out from the market.

8.141   Furthermore, in the case of search goods, the costs a consumer has to bear to get the relevant information are likely to be relatively small: therefore, a competitive market combined with a search good is likely to give rise to a situation where firms might have

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[107]   Of course, these concerns could also be relevant for the case of imperfect quality information.
[108]   For instance, increasing price information in fairly concentrated industries could lead to make tacit collusion easier (see, for instance, Waterson, 2003).

incentives to supply the relevant information[109] and consumers have the incentives to process it (as the costs of doing so are low) and therefore consumers' information on quality might tend to approach the "optimal" level.

8.142 Things can be more complex when firms have some degree of market power: in that case, as we noted above discussing imperfect information on prices, firms might have incentives not to supply all the relevant amount of information: for instance, Ramsey (1984) suggested that supplying more quality information could lead to an oligopolistic price war, and oligopolists might tacitly agree to under-provide quality information in very much the same way as they could have incentives to tacitly agree on the level of prices.

8.143 Firms with significant market power might also have incentives to under-supply quality information or even to make false claims (or not correcting obviously mistaken beliefs)[110] or to provide information that, although is literally true, is such that average person could be misled (Vickers, 2003), even if this is perhaps a serious problem only when there are important barriers to entry into the sector, when quality can not be ascertained even after purchase and when repeated purchases and personal experience do not constitute effective constraints on firms' behaviour.[111]

8.144 In general, it seems that in the case of search goods, imperfect information problems would not appear to be substantial. By way of contrast, especially in the case of firms with market power, it might be thought that imperfect information on quality tends to be particularly important in the case of experience and credence goods.

8.145 Experience goods are goods whose quality can be verified by consumers only after purchase (examples are drinks, food, home maintenance and some kind of repairs). In this case, the asymmetry of information between supplier and consumer could be substantial at the moment of purchase: in fact, even if the supplier discloses all the relevant information, for a consumer the costs of processing that information could be so high that it might be conceivable to think that he will not process it.

8.146 As a consequence, some consumers might be badly informed on the products features (quality, terms of warranties, etc) and, therefore, suffer a detriment. This is of course likely to be a problem especially in the case of "complex" products, for which the collection and processing of the relevant information might take time and even require some technical, specialised knowledge.

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[109] There are, however, reasons why in a competitive market, companies might not have incentives to supply the optimal amount of information. On one side, firms would face limited incentives to supply "general" information on the product that could boost the overall market demand for the product because they will not capture all of the benefits. By way of contrast, individual firms might have an incentive to oversupply information which conveys information on their product only (business stealing effect). As a result, a competitive market could undersupply information related to the product class and "oversupply" product specific information (see London Economics, 1997).

[110] See London Economics (1997).

[111] When quality is not observable, firms with significant market power might have incentives to undersupply quality, or to use quality as a "discrimination" device in order to appropriate consumer surplus. See, for instance, Spence, 1977, and Mussa and Rosen, 1978.

8.147   We may note that also in this case there is a sort of information externality problem. In fact, the higher the fraction of informed consumers that spend time in processing information, reading consumer reports, etc, the higher the incentives for firms to supply the correct information: the marginal social benefit of processing information and checking quality is therefore higher than the private marginal benefit, suggesting that, in some circumstances, consumers might be under-informed and make poor choices.

8.148   The problem might however be mitigated in the case of frequent purchases: in fact, in this case, the benefit of processing the relevant information would be high and the cost per purchase low (as it will be spread on many purchases) and, therefore, it might be expected that consumers would have more incentives to get a reasonably high level of information. Furthermore, in the case of frequent purchase, consumers have greater opportunity to learn from past mistakes.

8.149   By way of contrast, in the case of experience goods that are only seldom bought (some electrical appliances, cars, etc) the degree of imperfect information and the resulting consumer detriment could be significant because consumers have fewer opportunities to learn from past mistakes and the benefits of collecting information is not spread on many units. However, when the good bought is of high value, than consumers might have incentives to gain information because in proportion of the overall product value the costs of searching, collecting and processing information would be relatively low.

8.150   Especially in the case of some infrequently purchased products whose quality cannot be ascertained before purchase, not only might the incentives for consumers to process quality information be low, but also the information provided by the seller cannot be truly informative either: if quality cannot be verified before purchase, consumers will in fact realise that low quality suppliers might have incentives to claim to be high quality ones. As a result, the market price would reflect the average quality in the market, which might lead high quality producers to retire altogether from the market, leaving only low quality producers in the market (an example of adverse selection), and leading to a collapse of the market or to an inefficiently low trade equilibrium.

8.151   In this case, the full information competitive equilibrium would be restored if the firms had the possibility of credibly signalling their quality to consumers.

8.152   A possible signalling strategy would be for firms to heavily invest in advertising in order to signal to the market the intrinsic quality of their product by creating a brand name and a reputation, so that consumers will purchase the product again and a reputation of being a high-quality producer is established in the market.

8.153   We can note that it is not the information provided in the advertisement *per se* that conveys information, but the very fact that the firm sinks resources into advertisements

which could be recouped only insofar the quality is high and consumers would purchase the product again.[112]

8.154   In order to work, this kind of signalling strategy requires that firms are able to recoup their investment later by pricing above marginal costs, which could be problematic in the case of intense price competition. Furthermore, in the case of durable experience goods, advertising can be less effective in signalling information, as the product is purchased relatively infrequently.[113]

8.155   Prices might be another way for firms to convey information about quality in the case of experience goods: while Milgrom and Roberts (1986) have shown, for the case of non-durable goods, that low prices could perfectly substitute for advertising as a credible signalling device,[114] Bagwell and Riordan (1991) have shown that, in the case of a durable experience good, firms can credibly signal information to consumers by setting a price higher than the full information level at the introductory stage, to reduce it thereafter when a reputation has been established in the market and more (informed) consumers enter into the market.[115]

8.156   Warranties are another device that can be used to convey information on a product's quality. Warranties can be used as a signalling device: under fairly general conditions, it is possible that they allow high quality producers to differentiate themselves from low quality ones, and therefore convey information to consumers:[116] of course, warranties are sometimes complex and therefore difficult to understand, which might make it difficult for some consumers to obtain perfect information on the details of the warranties, giving some incentives on producers to "cheat" on the details of the warranties. Furthermore, the existence of moral hazard from the consumer side - stemming form imperfect verifiability of whether a given failure could be attributed to the firm or to the consumer (either because of technical difficulties or high costs) - might explain why for many products we do not see full warranties (see Tirole, 1988, for a discussion).

8.157   Vickers (2003) has proposed a simple model of consumer detriment, where consumers buy an experience good which is supplied competitively by n firms. He shows that, if firms cannot guarantee the quality of the product, firms would have an incentive to under-provide quality: consumers would recognise this incentive and the resulting equilibrium will involve lower price and quality than the equilibrium that would attain with perfect

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[112]   In game theory parlance, there is a separating equilibrium, with high-quality firms advertising and low-quality firms not advertising.
[113]   For a sceptical view about the role of advertising as a signalling device of quality to imperfectly informed consumers, see Caves and Greene (1995).
[114]   In their model, they show that there might be equilibria where a low price could be a signal of high quality, the intuition being that a low price might work as a committing device to consumers that the firm will be active in the market for long time (because it is a high quality one) and that it can therefore afford to waste some money in the current period.
[115]   See Linnemer (2002) for a paper which shows that, in the case of experience durable goods, firms might use both prices and advertising as a quality signal.
[116]   Lutz and Padmananbhan (1998) have however argued that the use of warranties might enable firms with market power to price discriminate between consumers.

information or with the firms being able to pre-commit to the full-information level of quality.

8.158   The low quality-low price equilibrium would entail a welfare loss both for consumers who still buy the product (because they are not offered the quality-price mix they would have otherwise chosen) and for consumers who do not buy the product. Furthermore, if consumers do not realise the incentives faced by firms and end up buying, they suffer additional consumer detriment because they will regret having bought a product whose quality they had over-estimated.

8.159   Vickers (2003) uses his model to show that reputation can work as a commitment device to supply higher quality, but that this requires firms to receive a rent, which makes the welfare maximising quality provision fall short of the perfect information level.

8.160   Therefore, the main message of Vickers' (2003) model is that reputation by itself might be not enough to solve the market inefficiency – and the associated consumer detriment – that might arise when consumers have imperfect quality information.

8.161   Problems related to imperfect information on quality are exacerbated in the case of credence goods. A credence good is a product whose quality (or some "dimensions" of quality) cannot be ascertained even after purchase – unless some second expert opinion is purchased[117] – and therefore past experience or "word of mouth" play a necessarily limited role in delivering information to consumers.

8.162   Examples of credence goods are some features of food, drinks, and drug products, or certain aspects of legal, medical and financial services. In all these cases, consumers have little scope to verify some of the claims made about the product, such as whether or not a certain food is a low fat one, or whether or not a financial instrument really suits their needs.

8.163   Furthermore, for some credence goods such as medical and legal services, or in the case of repairs, agency problems become important, because the seller also plays the role of advising the client on the "right" amount of the service he should consume, which could create strong incentives for the seller-agent to cheat on the quality of the service - for instance not performing the service which was required, or providing a low quality service but charging for a high quality one - or to provide a low quality service when an high quality one was in fact necessary, or to recommend an expensive service (such as a repair) which was not actually needed (an effect which is known as the demand-inducement effect in the health economics literature). Markets with credence goods are thus vulnerable to adverse selection problems (Akerlof, 1970).

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[117]   The necessity of a second, or even a third, opinion might however entail high search costs for consumers.

8.164   While in some circumstances reputation could play a role in better aligning the interests of sellers to consumers, in other cases the role it can play is far more limited, especially in the case of products that are seldom bought.

8.165   For instance, Emons (2001) considers the case of a credence good monopolist that produces a credence service (repairs) which is purchased by consumers only once (which rules out the possibility that reputation plays a role in "disciplining" the service provider).

8.166   The monopolist provides both diagnosis and repair. Consumers have no possibility to knowing, *ex post*, whether the monopolist cheated, except insofar as they can infer it from observable prices that the monopolist charges for diagnosis and for treatment and the monopolist's sunk investment in capacity. The sunk investment in capacity provides the monopolist with the incentive to fill it, which only happens if consumers are brought to believe that the monopolist would not cheat.

8.167   Emons shows that when consumers can observe both diagnosis and repair services (though not how much they would actually need) the monopolist can use prices to signal its honest behaviour and to produce the full information level of service (even when consumers cannot observe the level of capacity). When the level of services is not observable[118] but prices and capacity are, Emons shows that the monopolist is induced not to cheat, but that it will over-charge consumers. Finally, when also capacity cannot be observed by consumers, the monopolist will charge consumers and it will not perform the service.

8.168   Dulleck and Kerschbamer (2005) present a model which they use to argue that, in the case of credence goods, experts have incentives to commit to prices that ensure that the expert behaves non-fraudulently provided that:

(a) The expert faces homogenous consumers;

(b) There are strong economies of scope between diagnosis and treatment so that both the expert and the consumer are committed to proceed with treatment once a diagnosis has been made; and

(c) The treatment is verifiable, or else some limited liability rule protecting consumers is in place.

8.169   They then discuss the impact on market outcomes of the absence of these three conditions.[119]

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[118]   Consider, for instance, the repair of an internal component of a car.
[119]   See also Fong (2005) and Pesendorfer and Wolinsky (2003).

Imperfect information on quality: a possible modelling strategy

8.170   We have argued that there are several reasons that might suggest that, in some circumstances and for some categories of goods, consumers might be badly informed on the quality of the product they purchase.

8.171   To the best of our knowledge, one of the very few attempts to build a model that could be implemented to measure consumer detriment arising from imperfect information on quality is that discussed in Hunter et al in their 2001 report to the OFT.

8.172   They discuss two models: the first is a revision of an older model presented in a previous OFT report (OFT, 1997), while the second is based on a new theoretical development.

8.173   The original OFT model defined consumer detriment as the loss in consumer surplus which arises when consumers overestimate quality.   While it is recognised that consumers might also under-estimate quality, Hunter et al (2001) believe that quality over-estimation is likely to be the most relevant case to address.

8.174   Consumer detriment arises in this context because consumers have, for any given price level, a higher demand that they would have in the case of perfect information. Therefore, consumers both end up paying a higher price for the units of output they would have bought under perfect information and pay a price on the extra units which is higher than their willingness to pay under perfect information.

8.175   Hunter et al (2001) criticised some of the assumptions made by the OFT model, including the assumption of a monopolistic structure, the fact that the monopoly profit was not affected by the presence of the information shortfall, the existence of constant returns to scale in the case of perfect information, and the assumption that average costs were higher than marginal costs under imperfect information.[120] In addition, they also criticised the fact that the model did not distinguish between an increase in demand due to imperfect quality information and a "real" increase in demand, and the fact that the computation of consumer detriment would require knowledge of prices.

8.176   Hunter et al (2001) revised the model allowing for the presence of many firms in the market and adjusting the resulting expression of consumer detriment for a component that was missing in the OFT model. The equation which results from Hunter et al (2001)'s reformulation of the OFT model requires an estimate of the mark-up, profits under imperfect information as well as the demand elasticity for each of the goods analysed, which is typically computationally burdensome.

8.177   However, assuming that firms are profit maximising, Hunter et al (2001) showed that an equation for consumer detriment could be computed which does not require information

on the price elasticity of demand. It, however, would still require information on the mark-up, sales, profits, the number of firms and the conjectural variation parameter[121] (for which an assumption is required).

8.178   Hunter et al (2001) also discuss a new model which could be used to measure consumer detriment in the case of imperfect quality information.

8.179   They assume that consumers can observe prices (which, in their model implies that price dispersion does not arise because, with perfect information and a homogenous product, the "law of one price" would hold) and that the level of imperfect information is exogenous to the model and might be represented by the vertical difference between the observed demand and the "true" demand function.

8.180   They further assume that there are many firms in the market which make their output and price decisions on the basis of the observed demand, and that the market structure is the same under perfect and imperfect information.

8.181   Marginal costs are assumed to be constant. Assuming that firms maximise profits, they built a quantity model with conjectural variations which allows the derivation of a relationship between prices and the level of demand which is robust to the nature of competitive interaction which arises in the market.

8.182   They discuss a "short run" equilibrium version of the model, which builds upon the analysis we developed above and which is based on the assumption that there is no entry into the sector.

8.183   However, Hunter et al (2001) developed a "long run" version of their model, which allows firms to enter into the market by paying a sunk cost of entry.

8.184   This model yields a set of equations that could be used to estimate consumer detriment. However, the computations are likely to be data intensive and rely on extensive econometric analysis.

8.185   In fact, the key parameter that is to be estimated in order to compute a measure for consumer detriment is the sensitivity of prices to changes in the extent of imperfect information (as well as the market elasticity of demand and, in the short run version of the model, the conjectural elasticity parameter).

8.186   In order to do that, Hunter et al (2001) proposed a method to compute the imputed demand curve - i.e. the "price that, for the given quantity sold, would prevail in the market

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[120]   The model in fact assumed that the monopolist, in the case of imperfect information, spends a fixed amount of resources in order to make entry unprofitable.

[121]   The conjectural variation parameter tells how much, given n firms in the sector, the output of n-1 firms would change in reaction to a small change in output by one firm. Particular values of this parameter correspond to Bertrand or Cournot competition or to a perfectly collusive oligopoly.

if there was no overestimate of the quality embodied in the commodity" - which relies on a modified version of the hedonic price regression technique.

8.187   In hedonic price regressions, prices are considered to be a function of a set of product attributes plus other variables that may account for the existence of market power (such as the quantity sold).

8.188   The use of regression analysis helps in deriving prices that take quality into account. However, in the case of imperfect information, consumers end up paying a price which is higher than the level that the regression line would predict, at any given quality.

8.189   Therefore Hunter et al (2001) propose to address this problem by using an appropriate econometric methodology known as stochastic frontier analysis, which allows the derivation of an estimate of how much consumers pay above than what "real" quality would imply. This in turn allows the computation of the price consumers would have paid had they not over-estimated quality.

8.190   This information is then used to estimate the key parameters of the OFT model. The main feature of this approach is that it should be employed on a product rather than on an industry basis, and that therefore it does not appear suitable as a model to provide a quantification of consumer detriment (even the portion arising from imperfect quality information) at a country level. However, it might be useful when the object if the study is quantification of consumer detriment in a particular market (for instance, TV, cars, etc).

8.191   However, the amount of information required appears quite significant, as it would be necessary to have data on prices per model, technical characteristics, brand name, sales, etc.

Imperfect information on quality: some conclusions

8.192   The analysis developed above should have made clear that consumer detriment is more likely to arise in the case of:

(a)   Complex products, because the costs of acquiring information would be relatively high;

(b)   Experience goods that are seldom purchased, as mechanisms like reputation are less likely to provide an effective constraint on sellers;

(c)   Credence goods, as quality is never ascertained even after consumption. Examples of credence goods are legal and medical services, repairs, retail financial services, and some features of food and drinks products.

Generic evidence on the consumer detriment from information problems

8.193   An investigation of the empirical evidence on consumer detriment arising from imperfect information shows that there is indeed little evidence on the subject.

8.194   However, there is a growing literature on the effects that imperfect information and search costs have on price levels. We have noted above that in the case of significant search costs, some consumers might end up paying prices which are higher than those paid by other consumers. Some recent studies confirm this view and also provide some useful insights on goods for which price dispersion might be an important phenomenon to consider.

8.195   Dalby and West (1986) examined data on car insurance policies and found that premiums were less dispersed in the driver classes that were more likely to search, suggesting that firms might price discriminate between categories of consumers.

8.196   Bayliss and Perlof (2002) examined the internet market for digital cameras and flatbed scanners and they found significant price dispersion – even in an environment with low search costs and access to information and pricing – which they could not explain either with discounting or any competitive pricing model and instead attributed to the fact that internet firms charge higher prices to consumers that are less informed.

8.197   There is also some recent empirical evidence (Brown and Goolsbee, 2002) suggesting that the development of the internet has led to a reduction in search costs, therefore to more information which in turn has led to lower prices. However, there are also economists that are more sceptical on the impact of lower search costs on prices, as the fall of search costs might induce companies to increase the degree of differentiation of their products (to increase switching costs) and, therefore, prices (see, for instance, Waterson, 2003), with ambiguous effect on consumer welfare.

8.198   Some interesting empirical evidence on the impact of imperfect price information on consumer detriment is described in the report that Nottingham University Business School wrote for the OFT in 2005 on the effects of misleading price comparisons, i.e. the practice of some retailers of providing their customers with misleading comparisons of their prices to some prices (a competitor's price, an old price or a recommended price).

8.199   Insofar as some consumers believe price comparisons, or at least take them into consideration, there might be an incentive for dishonest firms to provide misleading price comparisons, causing consumers to reduce their search (and to end up paying higher prices than otherwise), and to increase their intention to purchase. Furthermore, there is some evidence that misleading price comparisons could lead to an increase in the perceived value of the transaction and the perceived acquisition value. Finally, misleading price comparisons could give rise to barriers to entry for honest firms that do not want to use this tactic and damage their reputation.

8.200   There is also some evidence on the impact that imperfect information on quality has on market outcomes. For instance, a 1980 study for the US Federal Trade Commission reported that there was robust evidence suggesting that the optometry industry tended to prescribe unnecessary treatments.

8.201   Animesh et al (2005) report some empirical evidence on online advertisers' bidding strategies and found that there are significant differences in bidding strategies between sellers of search goods as compared to experience and credence goods and that there is adverse selection for the goods characterised by strong uncertainty on quality.

8.202   London Economics (1997) considers how consumer detriment due to imperfect (quality and price) information might arise in the case of some UK sectors that had previously been the object of investigation by the OFT and suggested some case-specific policies to deal with the shortage of information that was likely to characterise these sectors. One of the most interesting case studies is the contact lenses sector, a market where virtually all information available to consumers came from opticians, as regulatory barriers prevented entrants such as supermarkets from supplying contact lenses.   The Monopoly and Mergers Commission (MMC) concluded that there was a fundamental market power problem underlying these information problems.   The regulatory regime was also criticised. However, the MMC did not recognise that consumers are heavily influenced by the recommendations of their optician and that this was a major source of information problems.

Innovation Spillovers

Introduction

8.203   Consumer detriment is usually associated with the static welfare loss that arises because of imperfections in the working of a market economy (market power, imperfect information, etc), bounded rational consumers and/or welfare-reducing interventions in the economy by the government. In these cases, the welfare loss is manifested in terms of higher prices, lower quantities or different qualities with respect to what would have characterised a "perfect" world with, say, no market power, perfect information, fully rational consumers and no government failures.

8.204   There is, however, an important element that is often missing in the debate on consumer detriment, i.e. the welfare losses that might arise because some policies or some market features tend to reduce the rate of innovation in the economy.   We have already discussed the potential non-linear links that might exist between market power, on one side, and an innovation activity, on the other; and how it is possible that the static consumer welfare loss due to market power might even be counterbalanced through a higher rate of innovation.

8.205   The importance of innovation for the long run well-being of consumers should not be underestimated.   For instance, conventional growth models based on Solow's work assume that, in the long run, the average increase in per capita income (which is, despite its imperfections, the most widely used indicator to compare standards of living across

countries and time) should be attributed entirely to the exogenous process of innovation (technological change).[122]

8.206   The empirical estimates confirm, at least in part, the important role played by technological innovation. In fact, it is possible to decompose growth in output per capita into two components: the increase in the capital to labour ratio and a residual, which is assumed to represent, at least in part, technological progress or multifactor productivity growth. The empirical evidence shows that, in general, capital deepening is unable to explain fully the rate of growth of per capita income, leaving an important role to play to the residual.[123]

8.207   Policies that foster technological change and innovation are therefore key determinants of the well-being of consumers in the long run, because it is conceivable that, in the long run, the gains from higher rates of innovation will ultimately be transferred to consumers, who will therefore be able to enjoy higher standards of living than otherwise.

8.208   The impact of policies or market structures on the rate of innovation should therefore be analysed when considering the major sources of consumer detriment.

8.209   Furthermore, there are some policies which might reduce (increase) consumer detriment in the short run, while bringing about higher (lower) welfare gains in the long run through higher (lower) levels of innovation. While the empirical measurement of the consumer welfare gains stemming from innovation might be inherently difficult, it is important to recognise the potential trade-off which exists between consumer welfare in the short run and the long run when analysing the desirability of a given policy.

8.210   First, we describe in more detail how innovation might increase the standard of living of consumers. We also discuss some policies that, although aimed at reducing consumer detriment, might have an overall ambiguous effect on the welfare of consumers through a negative impact on the rate of innovation. Second, we will discuss some methodologies that have been used or could potentially be used to measure consumer gains from innovation (and, conversely, consumer detriment arising from lower innovation).

Conceptual issues

8.211   In general, a distinction is made between two main types of innovation:

(a)   Process innovation: a process innovation can be defined as the implementation of a new or a better production method, which allows the firms that implement it to use

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[122]   More recent endogenous growth models have "endogenised" the rate of innovation, showing that, even in the long run, growth in per capita income might depend on capital accumulation decisions by firms if capital displays constant marginal returns, rather than diminishing, for instance because of externalities in the capital accumulation process. For a survey of endogenous growth models see Barro and Sala I Martin (2004).

[123]   A recent European Commission report showed that the Solow residual accounted for more than 50/60 per cent of the rate of growth of labour productivity (which is intimately related to the rate of growth of per capita income) in the EU-15 for period 1966-2002.

fewer inputs to produce a given amount of output. Process innovations might also comprise innovations in the marketing process, or in the organisational structure of the company.

(b) Product innovation: a product innovation, as the name suggests, refers to the introduction in the market of a new good/service or of a higher quality good/service.

8.212 Both types of innovation derive from knowledge, which can take different forms, from the most pure scientific knowledge (e.g. Einstein's equations) to highly applied knowledge, with a range of "ideas" that fall in-between. The accumulation of different types of knowledge is likely to depend on different determinants and to be governed by different processes.

8.213 However, Romer (1990) argued that, in general, most technological change is characterised by "improvements in instructions for mixing together raw materials" and that, as such, innovation is inherently cheap (because the expenditure necessary to bring basic innovations to the market is not too large), non-rivalrous (because, once created, the use by one individual does not make the use of it by someone else more difficult) and often non-excludable.

8.214 While some process or even product innovations fit into this characterisation of technological change, others (e.g. most innovations in the pharmaceutical sector) do not. In particular, some types of innovations require large R&D outlays, which therefore are considered an important determinant of the rate of innovation in a company, market, or country.[124]

8.215 In the latter case, the incentive for private firms to carry out R&D activity is low (unless the kind of knowledge underlying the innovation were excludable to competitors), since each company cannot fully internalise the benefits of the innovation because competitors can (sooner or later) imitate the new process or product: the easier and the faster to imitate, the lower the incentives for each firm to innovate in the first place.[125] Given the large sunk expenditure involved in R&D activity, private firms might even decide not to undertake any R&D activity at all, if, ex-ante, they anticipate that they would not be allowed to price above marginal costs to cover the fixed R&D expenditure carried out to innovate.

8.216 Aghion and Howitt (1998) discuss the kind of externalities associated with R&D activity:

(a) A positive externality, that they call appropriability effect, which reflects the inability of the innovator to appropriate the entire social surplus generated by the innovation (unless perfect price discrimination is possible);

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[124] Economic research has made clear that R&D expenditure is not only useful in developing new process and product innovation, but also in identifying, assimilating and adopting knowledge and innovations developed elsewhere, whether in the market or in the scientific community. This is referred to as the absorptive capacity of R&D.

(b) Another positive externality, that they call the intertemporal spillover effect, which reflects the fact that the innovator does not take into account the benefits to later innovators that build on his invention; and finally

(c) A negative externality which reflects a "business stealing" effect, due to the fact that the innovator does not take into account the fact that the innovation destroys the social return of the previous innovation. Provided the first two spillover effects are greater (in absolute value) than the third one, the market will provide incentives for innovation that are too weak.

8.217 Martin (2003) surveys the empirical evidence on the private and social rates of return of innovations and concludes that the latter is usually higher than the former, suggesting that, indeed, there is underinvestment in innovation, relative to the social optimum.

8.218 The patent system is one of the ways that society has developed to protect the incentives of private companies to invest in R&D and, therefore, to increase the rates of innovation in the economy.

8.219 The patent system provides an interesting example of the possibility of a trade off between different sources of consumer detriment.

8.220 What a patent system does is to provide a firm (or an individual) with a temporary monopoly over the use of a given innovation that fulfils the conditions for being patentable (non-obviousness, novelty and utility), provided that the invention is described sufficiently well to allow an expert to reproduce the invention.

8.221 This creates a static welfare loss for consumers until the patent expiration, because the monopolist can price with a mark-up over marginal costs: once the innovation has become common knowledge, it would be ex-post optimal for consumers to eliminate the monopoly (or make it shorter, in time or scope), which in turn would imply lower price and higher output.

8.222 However, eliminating the monopoly (or reducing "by too much" the time over which the patent can be enforced) would tend to reduce the amount of the R&D activity which is undertaken in the first place and to lead to too low levels of innovation and greater consumer detriment in long run due to higher prices and/or the lack of the product made possible by the innovation.

8.223 Furthermore, patents are associated with disclosure, which can be important to helping other firms to innovate around the patent (and in avoiding wasteful duplication of R&D efforts).

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[125] Caballero and Jaffe (1993) estimate the rate of diffusion of information on innovations using patents citations data and found the rates of diffusion to be almost instantaneous.

8.224   We note that the economic theory is indeterminate on the market structure that is most conducive to innovation. We have discussed earlier that there are reasons to believe that intermediate levels of product market competition are perhaps the most conducive to innovation (Aghion et al, 2005), even if perhaps more research is still needed. What is important, however, is that while, from a static point of view, reducing market concentration could result in higher welfare for consumers in the short run, it might well lead to consumer detriment in the long run if it slows down the rate of innovation.

8.225   The main message is therefore that failing to take impacts on innovation into account could lead policymakers to choose sub-optimal policy regimes.

8.226   Another example is restrictions on product differentiation or contractual structures that, while they might reduce consumer detriment, arising from imperfect information, might also dampen the ability of firms to innovate, thus making the overall effect of a particular policy ambiguous.

Measuring consumer gains from innovation

8.227   Measuring consumer gains from innovation is an inherently complex task. As we argued before, there are different types of innovations: process innovations and product innovation. Furthermore, product innovations might result in an "entirely new" product or, more often, in a higher quality product. It is therefore likely that different methodologies to analyse the consumer welfare gains from innovation will be needed for different causes.

8.228   The economics literature has dealt with the issue of valuing the consumer welfare benefits arising from innovation by developing different methodological approaches, ranging from those based on econometric techniques (see, for instance, Hausman 1997, Petrin, 2002) to those based on index number methodologies (see, for instance, Austin and Macauley, 2000). In general, these methodologies necessarily rely on ex-post data, i.e. they provide estimates of consumer welfare gains from innovation only when the innovation has already occurred.

8.229   However, it is almost impossible to measure *ex ante* what the gains in consumer welfare associated with particular innovations (i.e. because by definition the precise nature of the innovation in unknown *ex ante*). Therefore, any *ex ante* measurement has to be based on changes to trend rate or probabilistic assessment (e.g. Monte Carlo modelling).

8.230   From a conceptual point of view, what should be measured to assess consumer welfare from innovation is quite clear. Let us consider, for instance, the case of an innovation that leads to a new good which was not previously available in the market.

8.231   Figure 8.2 below refers to the market in time t=1, when the good has already been introduced into the market. At t=1, consumers enjoy a surplus equal to the area of the triangle ABC. The fact that the good was not available at t=0 can be modelled by assuming that the price of the good was so high in t=0 that consumers could not afford to buy it and, therefore, demand for the good was equal to zero. In this case it is easy to see

that the consumer welfare gain from the introduction of the new product would be equal to consumer surplus at time t=1.[126]

8.232   This kind of analysis would be particularly helpful to analyse the effects of regulatory policies that might have delayed or impeded the introduction of a particular good in the market.   Hausman (1997), for instance, advanced it in his study on the welfare losses suffered by US consumers from the delay imposed by the US Federal Communication Commission to the introduction of cellular phones.

Figure 8.2: Consumer Welfare Gain from a New Good
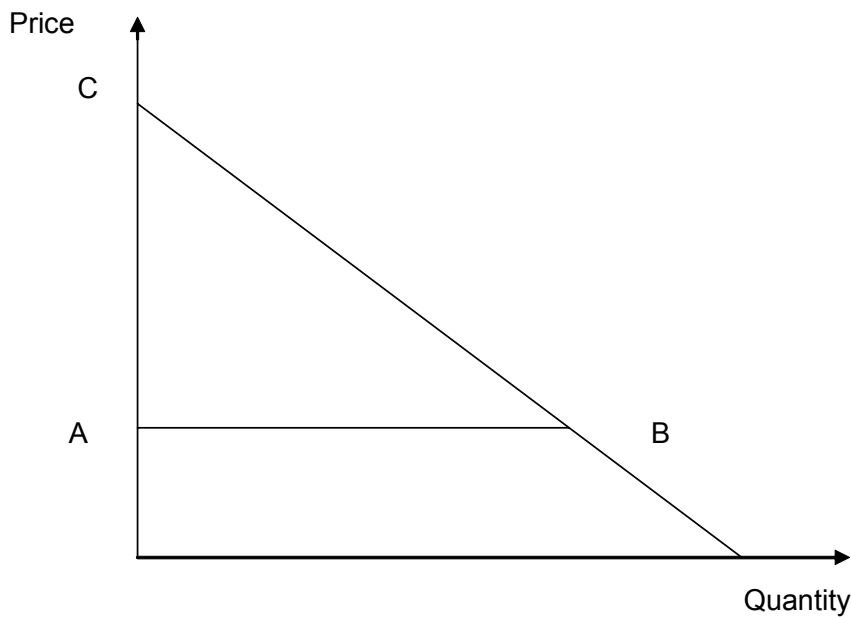
8.233   In general, the methodology proposed by Hausman would consist of collecting data on prices, quantities and other demand shifting variables for the good in question and estimating the demand function with appropriate econometric techniques.   With the relevant estimates at hand, it is easy to use the demand function to compute the price which would drive the quantity demanded at zero and compute the welfare gain from the introduction of the product.   Hausman (1997) also argues that, provided the correct welfare measurement technique is used (i.e. the equivalent or the compensating variation)[127] and provided that the old products purchased by consumers before the introduction of the new one are still available in the market, it is not necessary to net out

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[126]   As we discussed briefly in section 3, the correct welfare computations should be based on the Hicksian equivalent or compensating variation measures.
[127]   Which compare consumption bundles keeping the level of utility constant.

the welfare gain of the consumer surplus that they enjoyed before the introduction of the new good.

8.234   The methodology proposed by Hausman has the merit of being fairly simple and relatively easy to implement, although this simplicity comes at a price, as it might cause some potential problems with the econometric techniques which he suggests as well as with some assumptions implicitly made in the analysis.[128]

Figure 8.3: Welfare Gains from Innovation
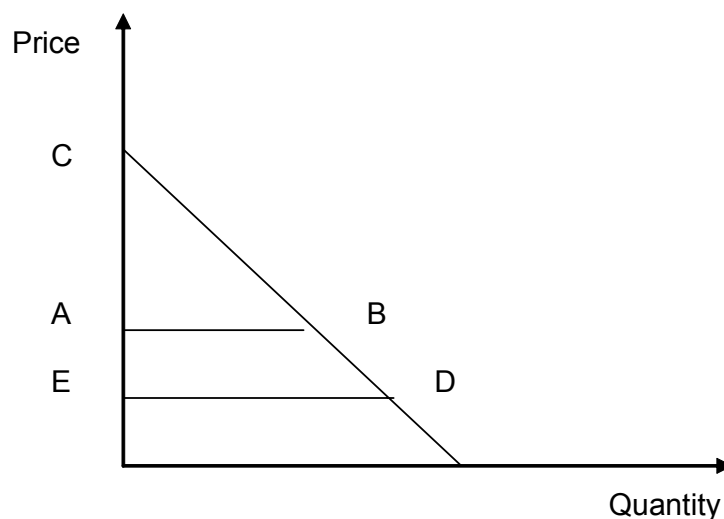
8.235   Process innovations have in general an impact on productivity levels, allowing firms to produce a given amount of output using fewer inputs. In this case, and assuming a perfectly competitive market, the welfare gains form innovations would correspond to the area of the trapezoid ABDE in Figure 8.3.[129]   The consumer welfare gains stem from a lower price on existing consumption plus consumer surplus on additional consumption. This of course is the welfare gain in the long run. In the short run, the innovation might provide the innovator with market power (with or without the patent system), which would tend to reduce, ceteris paribus, the potential benefits of the innovation, unless the innovation were the result of costless "transposition" of freely available scientific knowledge.

8.236   While, from a conceptual point of view, it is straightforward to analyse the consumer welfare consequences of innovation, an exact quantification of it and, especially, of the

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[128]   See Pakes (1997) and Petrin (2002) for a different approach to valuing the consumer welfare gains from new goods and which is based on the econometric estimation of discrete choice demand models.

[129]   Different market structures would have different diagrams but Figure 8.3 conveys the main message.

impact that some policies might have on consumer welfare via innovation is a much more difficult task.

8.237   Let us consider, for instance, the case of patent laws. We have argued above that the patent system trades off a static welfare loss with higher welfare in the long run which is made possible by innovations that would not perhaps have occurred without patent protection. Longer patents provide stronger incentives to perform the R&D (as it would be more likely that the fixed costs will be covered by the extra profit), but causes larger static welfare losses for consumers; broader patents might provide more incentives to perform R&D but, again, they give excessive monopoly power to the patent holder.

8.238   As far as the length of the patent is concerned, the seminal paper by Nordhaus (1969) found that there is a social welfare maximising optimal patent length which is positive, but finite.

8.239   Subsequent research showed that, when there is competition at the innovation stage and there is a positive probability that the R&D may not be successful, the optimal policy might be to award very long patents.

8.240   In general, the industrial context might play an important role in the determination of the optimal duration of a patent: industry features such as the demand elasticity or the nature of knowledge (how easy it is to keep the innovation secret, for instance) might have an important role to play in shaping the optimal patent duration,[130] and policies that change the extent of patent protection might therefore potentially impact on consumer welfare, even if the exact quantification would probably be difficult to make and, above all, it should be made on a case by case basis.[131]

8.241   Klemperer (1990) and Denicolo (1996), among others, showed that it is not possible, using fairly general models, to derive an optimal mix of patent length and breadth which would apply independently of the structural features and the degree of competition in individual sectors.

8.242   In other words, it is very difficult, ex-ante, to assess the impact that given patent policies might have on consumer welfare, unless the policy is of a "very extreme" nature, such as eliminating the patent system altogether (see, for instance, the empirical estimates provided by Darby and Zucker (2002) in the case of the US pharmaceutical industry).[132]

8.243   The example of patent policy is illustrative of the inherent difficulties of measuring, especially ex-ante, the impact that given policies might have on innovation and, via innovation, on consumer welfare.

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[130]   See Mukherjee and Pennings (2004).
[131]   Some surveys indicate that different industries are likely to derive different benefits from stronger patent protection.

8.244   However, a possible strategy could be, in an impact assessment framework, to analyse the impact that similar polices might have had in the past on measurable variables that affect innovation and welfare.

8.245   For instance, we noted above that economic theory attaches much importance to the rate of innovation in explaining the rate of growth of per capita income in the long run. In simple growth models, the growth in per capita income not explained by capital accumulation, the residual, is often associated with technical change and innovation. If a particular policy had, in the past, the effect of slowing down the residual, and if reliable evidence exists on the magnitude of this effect, then it should be relatively straightforward to "translate" the impact on innovation to an impact in terms of lost growth in per capita income.

8.246   This modelling strategy might involve computing total factor productivity growth (as an (albeit imperfect) proxy for the rate of innovation in an economy or sector) and then using econometric methods to assess the impact that, in the past, a given policy had on it. After computing the magnitude of the effect, it might be possible to forecast the impact that the policy would have on total factor productivity, and hence on the rate of growth in per capita income.[133]

8.247   However, the methodology would only provide a very high-level estimate of the effects, especially at macroeconomic level, given the inherent problems in building accurate measures of total factor productivity growth. For instance, it might be necessary to modify the statistical series on output and capital stock when significant innovations took place, perhaps using hedonic price techniques.

8.248   Second, it is usually quite data demanding and would require statistical and econometric skills in order to be implemented. However, if a quantification of the impact of a similar policy on total factor productivity growth had already been performed in the past, than the task would be greatly simplified.

Sub-optimal Product Variety

8.249   One of the assumptions of the standard model of perfect competition is that firms produce a homogenous good and that there is a sufficiently large number of competitors to ensure that firms are price takers in the product market (i.e. the demand curve they face is horizontal at the prevailing market price).

8.250   However, the reality of modern economies is that firms produce differentiated products, i.e. products which are not perfect substitutes for each other. This raises important issues

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[132]   Regarding patent scope, Hall and Zionidis (2001) do not find evidence suggesting that increased patent scope led to more output in the US semiconductor industry; Kortum and Lerner (1989) and Brandsetter and Sakakibara (1999) find little evidence that changes in patent scope led to higher R&D or patent output in the US and Japan.
[133]   The overall welfare effect would be the net present value, which would require the use of a discount rate.

related to the degree of competition, the extent of entry into the market, and the degree of product variety available for consumers. In this part we will mainly discuss the relationship between product variety, number of firms and welfare: in particular, we will focus on the literature that deals with issues related to horizontal, rather than vertical, product differentiation.[134]

8.251   A discussion of the economics of product differentiation and the market provision of variety is important because the market may not provide the optimal amount of variety or, more specifically, free markets can under- or over-provide some categories of products, leading to a welfare loss for consumers. In addition, some policies might end up unduly restricting consumer choice, which could result in a detriment for consumers that should be measured or at least taken into account when conducting an impact assessment.

8.252   In the literature on the economics of horizontal product differentiation it is possible to identify two modelling frameworks, which differ in the way consumers' preferences are modelled:

(a) Address models, which assume that consumers have preferences defined over the products' characteristics; and

(b) Non-address models, which assume that consumers have preferences over goods, but that also have a taste for diversity.

8.253   These are discussed in turn below, followed by a discussion of empirical approaches that have been used to estimate the value of consumer choice.

Address models

8.254   The address modelling framework originates from the seminal contribution of Hotelling (1929) and his model of a linear city. Hotelling's model (and the variants which followed) assumes that consumers are uniformly distributed over a segment of length one: the distribution of consumers can be interpreted in this model either as a "physical" distribution of consumers in a city or as the consumers' distribution of tastes about a specific product attribute (e.g. sweetness of a drink).

8.255   Different specifications of Hotelling's framework – in terms of the assumptions on demand elasticity (with the basic versions of the model assuming completely rigid demand), on the nature of the competitive interaction that take place among firms, on the "transport" costs

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[134]   Products are differentiated vertically when all consumers agree on which brand or product to prefer (and, therefore, at the same price, all consumers would buy the same good); whereas, products are horizontally differentiated when different consumers have different valuations about the quality of competing products or give different weights to the mix of each product's attributes. An example which is often given is that cars are horizontally differentiated among classes (e.g. whether or not to prefer a Ferrari over a Porsche, for a given price, is in general a matter of taste) but vertically differentiated across classes.

that consumer might have to incur to buy the product,[135] on the number of firms, etc[136] – may yield rather different predictions in terms of entry, location and welfare.

8.256   For instance, under the assumptions of one of the basic versions of Hotelling's model – in which two firms compete in a linear city by first selecting their location and then competing in prices, and consumers have rigid demand and face quadratic transport costs (see, for instance, Tirole, 1988) – the outcome is maximal differentiation, i.e. firms locate at the two extremes of the linear city.

8.257   The intuition of this result is that there are two conflicting forces at work:

(a)   The first, which we might call a business stealing effect, encourages the firms to locate near to each other (minimum differentiation);

(b)   The second, which we might call a sort of "escaping competition" effect, encourages firms to locate distantly from each other, in order to relax competition.

8.258   In the particular version of the Hotelling model we have just described, the escaping competition effect dominates and firms locate at the two extremes of the linear city.[137]   It can, however, be shown that a benevolent social planner with the goal of maximising society's welfare would choose to minimise transport costs[138] and would locate the two firms equidistantly on either side of the segment, suggesting that in this version of the Hotelling model the market yields too much product differentiation from a total welfare point of view.

8.259   The over-provision result is however not necessarily robust to modifications of the model. For instance, Salop's (1979) circular city model suggests that the market is more likely to over-provide variety in the case of many firms and free entry (from society's point of view, the negative effect on overall welfare stemming from the duplication of fixed costs is higher than the welfare gain resulting from lower transportation costs for consumers, at the free market outcome, yielding "too much" entry). However, using a free entry version of the linear city model with price competition, Church and Ware (2000) build a simple model where they show that the market might have too few, too many or the efficient number of brands depending on the transport costs: in particular, they show that when transportation costs are relatively large, the density of consumer relatively small and fixed

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[135]   We note again that the transport costs could be interpreted literally as the monetary costs a consumer needs to incur in order to go to the nearest store where to buy the product, or the disutility he incurs when he has to buy a product with an attribute that does not perfectly fit with his tastes.

[136]   See Brenner (2001) for a survey.

[137]   In Hotelling's original model, the two firms select their location given an exogenously fixed price and the resulting equilibrium of the model is the firms locating at the centre of the linear city (minimal differentiation), the intuition being that the incentives to differentiate decrease when firms do not compete in prices. However, the minimum differentiation result of this version of the Hotelling model is not robust to an increase in the number of firms (see Church and Ware, 2000, for an intuitive explanation).

[138]   Given that demand is assumed to be inelastic, consumption is fixed and therefore the social planner could maximise society's welfare by minimising transport costs (i.e. choosing the firms' locations).

costs relatively large, the market tends to under-provide variety (i.e. there are too few brands).

Non-address models

8.260   The second modelling framework assumes that consumers have preferences over goods but have a taste for diversity.   In particular, it is assumed that there is a representative consumer who consumes something of each good, rather than only a preferred product, as happens in the address models of product differentiation. Consumers' preferences are symmetric, i.e. the representative consumer views all differentiated products as an equal substitute for every other differentiated product.   This has important implications on the competitive interaction among firms: indeed, while in Hotelling models each firm competes only with its closest "neighbours", in the non-address models each firm competes symmetrically with all the other firms in the market.   In particular, when the number of firms in the market is fixed, perhaps because of barriers to entry, the non-address models become oligopoly models (Cournot or Bertrand, for instance) with product differentiation.   In the case of free entry, the modelling framework is that of monopolistic competition.

8.261   The original model of monopolistic competition is due to Chamberlin (1933).   He considered a market with a large number of firms, each producing a differentiated product which is bought by consumers who have a taste for variety. The market demand faced by each company is not horizontal as in the case of perfect competition because each firm is producing a differentiated product, and therefore the demand does not fall to zero for small price increases. Entry is assumed to be free, provided firms pay a fixed set-up cost: in particular, firms are assumed to enter into the industry until profits are not negative: in this case, the equilibrium outcome configuration would entail zero profits, prices higher than marginal costs (in order to cover the fixed set-up costs) and firms that do not produce at the minimum efficient scale. The last result has often been invoked to argue that the market might entail too much entry, which in this modelling framework would mean too much variety.

8.262   However, as formally shown by Spence (1976) and Dixon and Stiglitz (1977), this line of reasoning does not take into account that consumers like variety, and therefore the entry by additional firms might be justified even if this entails a duplication of fixed costs, and therefore higher average costs and prices.   In particular, it has been shown that the market could provide too much or too little diversity, and that this ultimately depends on two conflicting effects which operate in opposite directions.

8.263   On one side, there is a business stealing effect which provides firms with incentives towards excessive entry: when a firm enters, the incumbent firms accommodate that entry reducing output.   Therefore, at least some of the incremental output of the entrant replaces output that would have been produced even without that entry. The profit gained by the entrant is a private gain, rather than a social gain: a company would enter only insofar its gross profit were larger than the fixed costs, independently of whether the latter is higher or lower than the increase in social surplus brought about by entry.

8.264 On the other side, firms do not face enough incentives to enter because of the impossibility of appropriating the total surplus generated by the entry (since some of it accrues to consumers in the form of a welfare gain from greater choice). In particular, a company would not enter if fixed costs were higher than gross profits, even if the increase in social surplus were higher than fixed costs and entry would thus be socially beneficial.

8.265 Koenker and Kerry (1981) formally showed that the market tends to provide insufficient product diversity when scale economies are relatively small (because firms are small and therefore the business stealing effect is also small) and when the products are strongly differentiated (because in this case the non-appropriability of surplus is significant). It could be noted that, in general, economic theory takes total welfare (consumer surplus and profits) as the relevant measure to assess market outcomes: however, if consumer welfare were the relevant benchmark, as it is for some competition authorities, then it could be shown that ignoring the fixed cost (business stealing) argument, consumers could be made weakly better off by entry (Gaynor, 2004).

Conclusions on market provision of variety

8.266 From this summary of the literature, it is almost impossible to conclude whether or not the market provides the optimum amount of product variety. However, some suggestions about the products that could suffer from under- or over-provision in a market economy have been provided by the economic literature.

8.267 For instance, as Koenker and Kerry (1981)'s results suggest, and as was observed originally by Dixit and Stiglitz (1977), firms tend to be less able to appropriate total surplus for products with very rigid demand, which is often the case for products strongly desired only by few consumers (following Dixit and Stiglitz, 1977, an example of such products is opera). In such cases, the market might not provide enough product diversity. Secondly, the market could also be biased towards goods which entail large fixed costs, because firms might not be able to introduce products even when that would be valuable from a societal point of view.

8.268 To summarise, we may note that economic theory does not yield robust predictions on the efficiency of the "diversity" mix produced by the market, although it can provide useful insights on particular markets where some over- or under-provision of diversity might be more or less likely. We have also seen that, in general, consumers have a taste for variety: restricting choice can therefore result in a detriment for consumers which should be weighed against the benefits (if any) resulting from the restriction of choice.

Empirical estimation

8.269 The measurement of the welfare gains for consumers arising from the availability of more choice could be useful when assessing consumer detriment. For instance, we noted earlier that the existence of search costs might entail some welfare loss for consumers because of the higher prices they have to pay (see the earlier discussion on information problems). However, our discussion of product variety suggests that there is likely to be

an offsetting gain in consumer welfare from increased choice, making the overall effect on consumer welfare not entirely clear *a priori*.[139]

8.270   From an empirical point of view, to the best of our knowledge, one of the most used methodologies which is employed to measure the value of variety is the logit model of product differentiation. The logit model (and the more robust and general versions of it) is theoretically linked to the address (spatial) model of Hotelling and Lancaster, and can be used to estimate econometrically the parameters that relate individual consumers' features, product prices and attributes to actual choices and, through appropriate formulae (which involve the computation of own and cross price elasticities), to consumer welfare and consumer welfare change measures stemming from the availability of a particular brand.

8.271   The logit and related models in general are quite intensive methodologies, both in terms of data and econometric techniques necessary to produce reliable estimates. They require information at the level of individual consumers, in particular consumers characteristics and choices as well as products features and prices, often derived from scanner data sources.[140] An example of the use of this approach is Hortacsu and Syverson (2004) who used a standard multinomial logit model to estimate the value of variety in the US Standard and Poor 500 index funds and reported that the welfare loss that would occur from transforming the Standard and Poor 500 index funds into a monopoly would amount to about $500 million for the year 2000 in the US.

8.272   Other methodologies that have been proposed include that originally proposed by Hausman (1997) (and which we have summarised earlier) to quantify the welfare effect of a new product, and that could be used to quantify the welfare gain from the introduction of a new variety, as the latter can be seen as an additional good. This methodology was recently used by Brynjolfsson et al (2003) to assess the value of product variety brought about by online booksellers. Brynjolfsson et al (2003) argue that the internet has allowed a substantial increase in the supply of obscure books (i.e. books not readily available through bricks-and-mortar retailers): using the methodology described in Hausman (1997)[141] they compute a consumer welfare gain from additional product variety of about $700 million to $1 billion for the year 2000 in the US.

8.273   Broda and Weinstein (2004), building on Feenstra (1994), have proposed a new methodology to correct the bias which exists in conventional import price indices by taking into account the value of new goods and varieties, and have suggested that the US import price index has an upward bias of about 1.2 per cent per year.[142] This bias would suggest

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[139]   More choice could provide a benefit for consumers from the very fact of being available (i.e. by providing an "option value").
[140]   Information on prices can be "real data" derived from market transactions or derived through the stated preference approach, which requires asking individuals to place a value on a good or on a feature of that good.
[141]   And subsequently refined in Hausman and Leonard (2002).
[142]   Their methodology is based on the utilisation of import data at a very disaggregated level (8 and 10 digit level) which allowed them to compute about 30,000 elasticities of substitution between goods. They then used the elasticities to build a US import price index

that American consumers would be ready to pay $280 billion a year (about 2.8 per cent of GDP) to have access to the variety of goods that was available in 2001 rather than that which was available in 1972.

Other Market Failures

8.274 **Public goods**. Pure public goods are goods (such as national defence) which are *non-rival*, i.e. consumption of the good by one person does not diminish the ability of others to consume the good, and *non-excludable*, i.e. it is not easy to prevent anyone from consuming the good. Where this is the case, consumers have an incentive to free-ride by receiving the benefits of the public good but leaving others to pay for its provision. The consequence is that free markets are unlikely to provide an appropriate level of the public good. This might cause consumers to suffer detriment, unless the government produces the optimum level of the public goods,[143] which is inherently difficult, given that it is virtually impossible for the government to know the individual preferences of consumers.

8.275 The concept of public goods is closely related to the wider issue of externalities. An **externality** problem arises whenever an individual's action has an impact (positive or negative) on the utility of some other individual who does not pay (or receive) a price for it. The existence of externalities suggests that some goods or services might be oversupplied or undersupplied with respect to the socially optimal levels. As a result, consumers might suffer detriment.

8.276 The main implication of the presence of externalities is that the market mechanism may not necessarily result in a Pareto efficient allocation of resources.[144] However, the mere existence of an externality (and the associated consumer welfare loss) does not necessarily call for government intervention given the consumer detriment that can sometimes arise from regulation itself (see the next section of the report).

8.277 A classic example of a negative externality is the case of smoking. We could think about the case of a restaurant where there are some consumers that smoke. However, by doing so they impose a negative externality on non-smokers, who suffer detriment because they cannot derive the same enjoyment from consuming the service they are buying as they would if smoking restrictions or other arrangements were put in place.[145]

8.278 We have seen earlier in this section that externalities can play an important role in creating consumer detriment. In particular, we discussed the externalities associated with the introduction of process and product innovations and the consumer detriment that

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based on individual preferences derived from a Constant Elasticity of Substitution (CES) utility function as in the product differentiation model of Dixit and Stigltz (1977).

[143] The optimal level of public good provision can be hard to define, even at a conceptual level.

[144] The market mechanism is capable of achieving Pareto efficient allocations when externalities are *not* present. The First Welfare Theorem says that any competitive equilibrium is Pareto efficient. (The Second Welfare Theorem says that any Pareto efficient allocation of resources can be achieved with the market mechanism.)

[145] Of course, if smoking restrictions were put in place, smokers would be negatively affected by the restriction.

might arise as a result of these spillovers. Below we discuss some further examples of goods or services which have public good features.

8.279 Food safety (as opposed to food quality) has long been recognised to have public good features and, as a result, it is likely to be underprovided in an unregulated market, resulting in a welfare loss for consumers and society as a whole. An individual producer is unlikely to take into account the fact that, by undersupplying safety, he could impose long lasting consequences on the entire sector, because consumers' confidence could be shaken. Indeed, at the limit, the market could collapse altogether. Therefore the producer's decisions regarding food safety are not likely to reflect the full benefits from a societal point of view. Furthermore, firms at different levels of the value chain might find it difficult to control specific health hazards without cooperation, which in turn might require some degree of government intervention, especially to enforce controls and certify sanitary conditions (Unneveher, 2004).

8.280 As has been argued earlier in this section, information also has public good features both on the producer and the consumer side, as neither may have sufficient incentives to supply or to acquire the socially optimal amount of information.

8.281 An interesting example of this is information related to food safety and the health properties of good. Consumers do not take account of the fact that, by not "investing" adequate resources in acquiring information on the food safety or the health properties of the food they buy, they could impose wider costs on society in the future. (For instance, people with a poor diet may place greater demands on public-funded healthcare systems later in life.) Public campaigns that warn against the health hazards of certain categories of food could then be justified on the basis of the public good features of food safety and health-related information.

8.282 Other cases of goods that may have some public good features, because of the externalities that are associated with them, are some types of information goods, such as software and, in general, network goods.

8.283 Interesting consumer welfare issues arise in the case of network goods. The utility that consumers derive from a given network good will increase with the number of other consumers that buy that network good, because that increases the availability of complementary products. For instance, in the case of an operating system, the more consumers there are that use it, the more software products compatible with that operating system which are likely to be developed.

8.284 Network goods therefore have public good features, given the externalities which they are associated with. They often raise interesting issues of public policy, especially competition policy issues. For instance, if a certain standard has been established in the market, it could be very difficult for a competing standard to enter successfully, because it would have to convince each consumer that it would be able to reach a critical mass of users.

8.285   Forcing interoperability or connectivity has often been suggested as a possible solution to this competition problem, even if the drawback associated with interoperability is that it could blunt the incentives to develop the standard in the first place, possibly leading to consumer detriment greater than that due to the higher prices that may prevail under conditions of non-connectivity.

8.286   It could also be noted that network markets are likely to show fierce competition at the early stages of development but, once one standard has prevailed, the market tends to become a monopoly, until the next innovation manages to attract a critical mass of consumers. The potential welfare consequences of market power in markets that display network effects are not obvious (Motta, 2004).

8.287   The internet is another example of a network good, in that the benefits of connecting to the internet depend on how many others are also making use of this means of communication.

8.288   In addition, there could be externalities associated with internet security issues. For instance, when deciding how much money to invest in security software, individuals and firms may not take into account the fact that if they are vulnerable to (say) email viruses they could become a channel for spreading the problem to others.

9 CONSUMER DETRIMENT ARISING FROM REGULATORY FAILURE

Introduction

9.1 Government and regulators sometimes intervene in the economy to correct distortions caused by market failure, or to achieve other policy objectives. Where the benefits of such interventions are greater than the costs, welfare will rise compared to a situation of no intervention.

9.2 However, it is possible that government or regulatory interventions might introduce distortions which were not previously there. Regulatory failure can arise for different reasons, including:

(a) *Badly designed regulation.* Policy may not target the cause of the problem and/or may create further distortions.

(b) *Changes through time.* Even where a policy was appropriate when first introduced, circumstances could have changed so that it is no longer appropriate.

9.3 There are some types of regulatory intervention that, in general, are likely to create significant distortions in the economy and, often, welfare losses for consumers (e.g. tariffs on imports of cheap consumer goods from other countries).

9.4 By way of contrast, there are other types of regulatory intervention whose impact on consumer welfare is not clear *a priori*, as the distortions and associated welfare losses which they introduce may or may not be outweighed by the welfare gains which they generate (e.g. by correcting a market failure). In this case, identifying the net effect of a specific regulatory intervention on consumer welfare will necessarily be case specific.

9.5 Regulatory failure could be placed into two categories:

(a) *Acts of commission*, where regulation itself introduces harmful distortions. This may be due, for instance, to poorly defined objectives, unintended consequences, failures of implementation and enforcement, regulatory capture (where a regulatory body acts in the interest of those it is regulating), or self-interested behaviour on the part of the regulator (e.g. empire-building).

(b) *Acts of omission.* We suggest that it is useful to break down acts of omission into two further categories.

– *Failure to create a framework for functioning markets.* As discussed in section 5, markets require property rights, contract law and a medium of exchange to function well. Consumers could suffer detriment if markets malfunctioned because government or regulators had failed to create this framework.

– *Failure to take action to address market failures.* The government or regulators may possess existing powers to intervene in markets (e.g. by increasing the amount of information given to consumers) in a way that may reduce market failure. If such action is not taken, consumers may suffer detriment due to avoidable market failures.

9.6 Care is needed with regard to acts of omission to avoid the risk of double-counting consumer detriment. A €1 billion loss of consumer welfare due to market power could also be labelled as a €1 billion loss due to failure to take regulatory action (e.g. if this was due to a merger that was allowed to proceed). There could be a danger of estimating the total loss as €2 billion just because the loss can be thought of in two different ways.

9.7 In the rest of this section we analyse various types of regulatory intervention (although the list is not necessarily exhaustive). In general, our analysis is not intended to offer definitive conclusions on the merits of particular types of regulation, but rather aims to explain how, under some circumstances, regulation may introduce distortions in the economy that could give rise to consumer detriment.

Product Bans and Restrictions

9.8 In this sub-section, we discuss the effect of regulations which ban products, place restrictions on certain types of transactions, or place restrictions on innovation.

9.9 Restrictions on the sale of certain products could create welfare losses because consumers are not able to purchase a product that would be supplied in the market in the absence of the restriction.

9.10 The ban/restriction might have been introduced in the first place to avoid consumer detriment – for instance, when the health implications of a product were not entirely clear. However, especially when the gains from banning a product are relatively small (e.g. because there is a small risk that the product actually causes any harm to consumers), it might be the case that, by banning the product, the regulation actually leads to an increase in consumer detriment.

9.11 An example of a welfare loss stemming from regulatory intervention was the delayed introduction, by the US Federal Communication Commission (FCC), of voice message services and cellular telephones in the US. Hausman (1997) computed the welfare loss from delaying innovation as about $1.27 billion for voice messaging and about $50 billion a year for cellular telephones. Although the methodology Hausman used, as well as some of the assumptions he made, were criticized by other economists (see, for instance,

Pakes, 1997),[146] the example clearly shows that consumer welfare losses arising from regulatory interventions are plausible and potentially amenable to empirical measurement.

9.12   If a new product is banned then the effect of this will be similar to the loss of a new product caused by a lack of innovation. The techniques for estimating this loss and the value of forgone new products are explained in section 8 in the context of innovation spillovers.

9.13   If a new product were to be introduced, the whole of the grey area on the graph below would represent consumer surplus (since it is the area by which consumer willingness to pay exceeds price). Thus, if this product is banned, then structural consumer detriment will increase by the size of this area, since consumers would lose this surplus.

Figure 9.1: The Loss in Consumer Surplus caused by the Absence of a Banned Product.
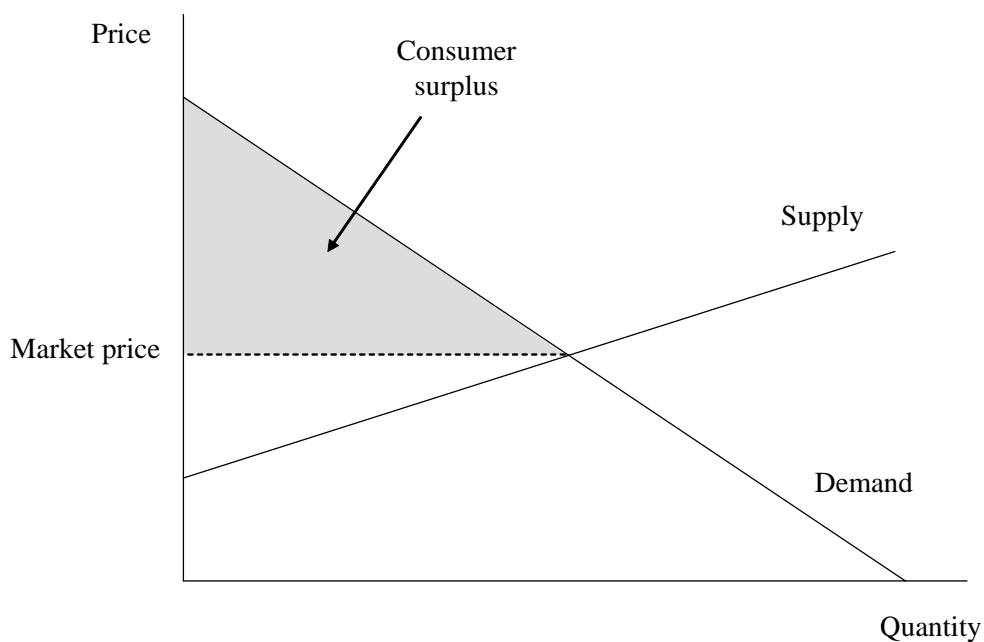
Price and Quantity Interventions

9.14   Some regulations take the form of minimum or maximum prices, or quantity restrictions for certain products. In addition to the economic regulation of natural monopolies, there are a number of other sectors in the EU, such as the legal professions and retailing prescription drugs, where regulations take the form of price restrictions (either price floors or ceilings, or both).

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[146]   See Pakes (1997) for a discussion of a possible justification for the Federal Communication Commission's decision to delay the introduction of voice messaging and cellular telephones.

9.15   A price floor might create a welfare loss for consumers insofar as a producer could be willing to supply its services or products at a lower price. Analogously, a price ceiling could impede further gains from trade between consumers and firms, by leaving unsatisfied demand. There can be advantages for consumers stemming from such regulations: for instance, a price floor might discourage dishonest competitors from entering the market (although other regulations could be more effective than a price floor).

9.16   The most appropriate way to model the impact of a price restriction depends on the nature of the market.

9.17   In a market where there is significant differentiation, such as the market for residential renting or used cars, price restrictions may have a similar effect to a product ban. For instance, a price ceiling on rents that was intended to help lower-income groups afford housing could lead landlords to sell high value properties (because the rents offered no longer provide sufficient returns) with the effect that these properties become owner-occupied housing. The welfare effects will be similar to the effects of a ban of a product category (e.g. a ban on renting high value property). If the market was working well previously the products will be relegated to their next best uses (such as owner occupation in this case), and the welfare gains from the current transactions will be lost.

9.18   In homogenous markets such as generic pharmaceuticals, a price restriction could in theory increase consumer surplus at the expense of producer surplus (as shown in the next diagram). This is especially likely if demand and supply is inelastic and thus the quantity sold is not influenced much by price. However, society's total welfare would fall as a result of such a policy (see appendix 2 for a discussion of total versus consumer welfare).

9.19   It will be important to assess the practicalities of a measure such as this. A price floor that has a binding effect on the market for a homogenous product will lead to a situation in which more people want to purchase the good than can be supplied. How will the people who get to consume the product be determined? Will there be external monitoring to find those most in need (e.g. for public sector services), or will there be other allocation mechanisms that use up valuable resources (such as queuing)?

9.20   Queuing can be more harmful in economic terms than paying high prices. First, the final allocation of the good or service may be inefficient, because those who obtain the limited supply of the product may not be those people who value it most highly.   Second, consumers will suffer (non-financial) costs in the form of lost time as a result of spending time in queues. From society's point of view, this loss of time may actually be worse than payment of a higher price since the costs are wasted and not just transferred. Third, rent-seeking activities (such as lobbying, or exaggerating a claim) may also mean that resources are used trying to influence the allocation mechanism.

9.21   To give an example: a rent ceiling on low-quality (homogenous) flats could increase or reduce consumer welfare depending on certain parameters. In the diagram, if the loss in consumer surplus for those excluded from the market (the hashed triangle) is less than

the gain in consumer surplus from a fall in price (grey box) then the price ceiling may reduce consumer detriment. This assumes that:

(a) Those buyers with lowest valuations are actually the ones excluded from the market;

(b) The selection of highest valued buyers is done without incurring extra costs (queuing, rent seeking etc);

(c) The rise in consumer surplus, which was a transfer from producers and hence led to a loss of producer surplus, does not lead to dynamic consumer losses (e.g. due to reduced investment).

Figure 9.2: The Effect of a Price Ceiling on Consumer Welfare
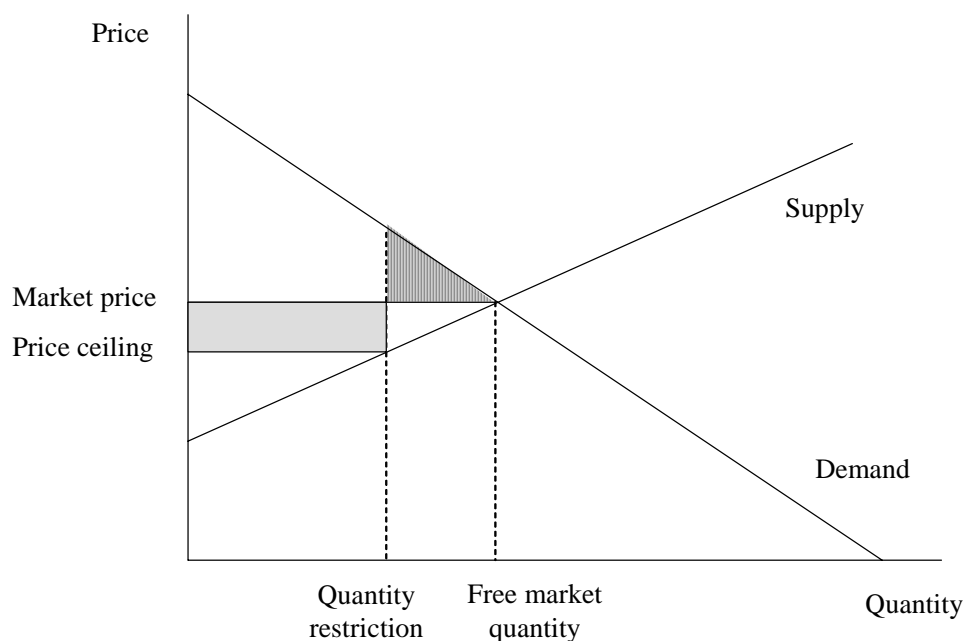
Regulatory Barriers to Entry

9.22   We discussed in section 8 how market power can create distortions in the economy which in turn affect consumer welfare. We also pointed out that some entry barriers are created by government or regulatory interventions, such as:

(a) Licensing regimes which include limits on the volume of licences handed out;

(b) Administrative costs that are more significant for small firms and thus tend to leave fewer firms in the market.

(c) Barriers to firms leaving the market which may make entry more risky.

(d) Costs that only affect entrants such as extra inspection before being allowed to trade (e.g. requiring new lorry drivers to pass an advanced driving test).

9.23   We therefore refer to section 8 for a discussion of this issue.

9.24   If a regulation has increased barriers to entry there may be evidence of this in changes to industry concentration or firm structure since the regulation. Surveys of compliance costs for regulations can sometimes be used to estimate how much firms expect their behaviour to change because of the regulations (e.g. in relation to recruitment or pricing). As with other entry barriers, a reduction in the number of small firms may reduce choice and harm innovation. In some cases, however, entry barriers could be a sensible solution to a practical problem such as the existence of a natural monopoly.

Trade Restrictions

9.25   Trade restrictions can take the form of import restrictions or tariffs on non-EU products. In general, trade restrictions force consumers to pay higher prices, with the result that consumers may choose to consume less than they would otherwise do.

9.26   From the perspective of consumer detriment, an import quota can have large adverse effects. Although the quota can increase producer surplus and worker rents in EU firms operating in the protected industry, the choice available to consumers is reduced. Further, the reduction in supply may mean that the price of the product rises to bring demand and supply back into balance, leading to a loss of consumer surplus as shown by the shaded area in Figure 9.3.

Figure 9.3: Comparison of the Effect of a Quota and a Tariff
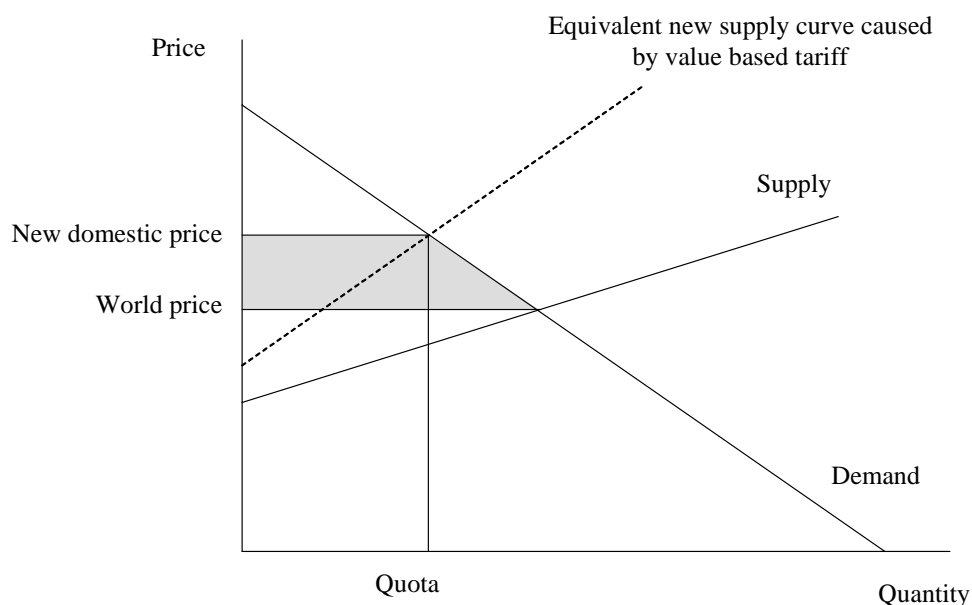
9.27   Ignoring the effect on government revenue, the reduction in consumer surplus associated with a tariff (rather than a quota) will be similar. The tax will raise the costs of supply for importers and lead to a new equilibrium with higher price and reduced quantity (which could result in exactly the same effect on consumer surplus – see dashed supply curve in diagram above).

Cost Increases (Red Tape)

9.28   Regulatory interventions often impose costs on firms, which arguably have a similar effect on consumers as a tax on firms' products. Therefore, the costs of a given regulation would be, to some extent at least, passed onto consumers though higher prices, which in turn entails a welfare loss for consumers.[147]

9.29   The effects of a cost increase can depend on the nature of the costs imposed and the nature of competition in the industry affected. In the short term, an increase in fixed costs resulting from new regulation may not affect market prices, although prices are likely to rise in the longer term if the market is competitive.[148] On the other hand, if each transaction is made more expensive then this can be expected to affect pricing even in the short term.

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[147]   This does not mean that the regulation should not be implemented, as its overall impact might be positive for consumers or for society as a whole.

[148]   If firms have market power and are earning economic profit, it is theoretically possible that these costs may never affect prices.

9.30   The other important issue regarding the costs imposed by regulation is their relative impact across firms. If regulation imposes equal costs on firms of all sizes (such as the payment of a fixed registration cost), then average costs will rise by a larger amount for small firms. Similarly, if the regulation tends to create a large workload over a small period then small firms may not have sufficient qualified staff to handle the impact. These impacts will damage the ability of small firms to compete with larger rivals and thus will tend to lead to a loss of small firms in the industry and an increase in concentration and market power.

Restrictions on Production Activity

9.31   Some restrictions on production activity (say, for environmental or health and safety reasons) might create consumer detriment by leading to cost increases for businesses which may be passed, at least to some extent, onto consumers. The detriment suffered by consumers in the market affected by the restriction should, of course, be compared to welfare gains for other consumers or citizens resulting from the regulatory restriction.

9.32   Rather than imposing fixed restrictions, environmental protection controls can sometimes be implemented by giving property rights over environmental assets (e.g. tradable carbon permits). This type of mechanism should make it easier to assess the impact of the policy on the cost base of firms, because a market price may emerge for the tradable property right.

9.33   Some restrictions on production activity could be so severe that they are equivalent to an outright ban of the product produced in that process, in which case our earlier discussion of the effects of a product ban would apply.

Acts of Omission

9.34   As discussed earlier in this section, acts of omission could consist in the failure to provide a framework for well-functioning markets, or the failure to take regulatory action to tackle market failures.

9.35   In section 5 we discussed how competitive markets can only function properly if certain conditions are in place. In particular, we stated that for well-functioning markets to exist there needs to be a legal framework in place which provides the following:

(a)   *Property rights*. Mutually-beneficial trades can only take place if economic agents have ownership rights over the goods and services which they wish to trade.

(b)   *Enforceable contract rights*. Economic agents must be able to enforce contracts in order to be able to engage in meaningful transactions.

(c)   *A medium of exchange*. In the absence of a medium of exchange (e.g. money), trade would be limited to bartering (which in turn requires a coincidence of wants).

9.36   Hence, consumers could suffer detriment due to regulatory failure if policy-makers fail to put in place a suitable legal framework to enable markets to function well.

9.37   In section 8, we discussed how consumer detriment might arise due to various types of market failure. We focused in particular on market power and information problems as leading sources of consumer detriment.

9.38   If policy-makers have the policy tools at their disposal to tackle such problems but fail to do so, then again it can be argued that consumer detriment is partly caused by regulatory failure taking the form of an act of omission.

10 CONSUMER DETRIMENT ARISING FROM BEHAVIOURAL BIASES

10.1 Within mainstream economics, analyses and models of consumer behaviour take as given that consumers are rational.[149] By contrast, behavioural economists explore the implications of non-rational or boundedly rational decision-making by economic agents.

10.2 There are (at least) two ways to think about the difference between mainstream and behavioural economics. One could argue that mainstream economics is based on a "naïve" assumption about how economic agents behave, and that behavioural economics is an attempt to correct this by introducing more realistic models of human behaviour. Alternatively, the two branches of economics could simply be seen as different disciplines based on different axioms (or structuring principles), with mainstream economics attempting to find explanations which are consistent with rationality and behavioural economics exploring the effect of limitations to rationality.

10.3 There is increasing policy interest in consumer detriment arising from biases in consumer behaviour, and the role that consumer policy may play in addressing such problems. For instance, a report published by the OECD states that:[150]

> Over the last 30 years, more has been learned about actual consumer behaviour. Studies in the field of behavioural economics using laboratory experiments and studies in markets have shown that consumers exhibit systematic departures from what economics would classify as "rational" behaviour.

> Behavioural economics finds market failures resulting not only from information failure, but also from consistent biases in consumer behaviour. For example, even when presented with full information consumers may not be in a position to understand and/or use that information to their advantage. Therefore, different policy or regulatory intervention may be necessary to help consumers adopt decisions in their best interest.

10.4 We suggest that great care is needed to avoid justifying policy intervention on the basis of casual statements that consumers are non-rational and hence are suffering consumer detriment. Behaviour which appears irrational at first glance can sometimes be explained within the framework of mainstream economics, and hence a casual approach might lead policy-makers to intervene in markets which are in fact functioning reasonably well.

10.5 Further, great care is needed even where there are behavioural biases, as the effect of policy intervention may not always be obvious. For instance, Lilico (2004) shows how, under certain conditions, policies that seek to correct for short-sighted decisions by

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[149] Throughout this section we use the term "mainstream economics" to refer to economics which is predicated on the assumption that economic agents act in a rational way.
[150] OECD, "Roundtable on demand-side economics for consumer policy: summary report", April 20th 2006

consumers might actually exacerbate problems, because in the presence of non-rationality markets do not necessarily work as we might intuitively think.[151]

10.6   The approach we have taken in this section is to carry out high-level analysis of the welfare effects of behavioural biases, supplemented with some tightly-defined examples of how consumer detriment may occur in the presence of certain kinds of behavioural bias.

Welfare Implications of Behavioural Biases

10.7   This sub-section discusses some initial thoughts on the welfare implications of different types of model from the field of behavioural economics.

10.8   There are two possible reasons why actual consumer behaviour may depart from the "rational" behaviour assumed by mainstream economics:

(a)   Consumers' **preferences** may not always reflect the assumptions made by mainstream economics (e.g. they may not be transitive).[152]

(b)   Due to **cognitive limitations** consumers may take sub-optimal decisions given their underlying preferences (e.g. decisions based on limited foresight).

10.9   These two possibilities have different welfare implications, as is discussed in the next two sub-sections.

Preferences

10.10   If consumers' preferences do not behave in the way assumed by mainstream economics, there are at least two philosophical ways we could think about this:

(a)   We could accept these preferences as being valid, in which case the problem is not that consumers have "wrong" preferences, but simply that mainstream economics does not model the real world realistically. An example would be loss aversion (the finding that individuals appear to dislike losses more than equivalent gains). This seems a perfectly legitimate way for human beings to feel, even if such preferences are "non-rational" compared to the assumptions made by mainstream economists.

(b)   We could take a paternalistic viewpoint and treat consumers' preferences as being "non-rational" and therefore inappropriate. In this case, there may be consumer detriment associated with differences between actual outcomes and those outcomes that would prevail if consumer preferences fitted some notion of what is "rational".

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[151]   Lilico, A., "Regulating Markets with Short-sighted Decision-makers", Europe Economics staff working paper, March 2004, http://www.eer.co.uk/download/eeshortsight.pdf

[152]   Transitivity of preferences means that if a consumer prefers A to B and B to C, then he will also prefer A to C.

10.11   Our initial position is that the first view is generally more appropriate. However, in this section of the report we do discuss both points of view (for instance, see our later discussion of time variant preferences).

10.12   There may, of course, be cases in which the policy-maker can legitimately question the validity of consumers' preferences, e.g. where in the absence of legal restraint individuals would choose to consume goods/services which are morally dubious.

10.13   Further, with some preferences consumers may want access to contracts that would seem unnecessary with conventional preferences, even if these consumers have perfect cognitive abilities.   The case of time variant preferences arising from hyperbolic discounting (discussed later) provides a good illustration of this.   Consumer detriment could arise if such contracts are not available.

Cognitive limitations

10.14   Some groups in society (e.g. the mentally ill, young children, those under the influence of an addiction) clearly suffer from cognitive limitations.

10.15   However, behavioural economists also highlight cognitive errors which are made by people more widely (e.g. people's response to a question may be affected if the question is framed in a different way, even if the question remains the same in essence).

10.16   Consumer detriment may arise in a more direct way in cases where consumers' behaviour is boundedly rational due to cognitive limitations. Here, the argument would be that consumers are not getting what they really want (given their underlying preferences) because their decision-making processes are sub-optimal.

10.17   For example, consumers may place "too much" weight on small probabilities when taking decisions (e.g. overestimating the risk of BSE from eating beef). Assuming that what really matters to them is actual probabilities, then this cognitive limitation may lead them to take consumption decisions which fail to maximise their utility.

10.18   Taking the analogy proposed by Herrnstein, Loewenstein, Prelec, and Vaughan,[153] we could think of cognitive limitations as giving rise to "internalities" (an analogy with the well-known externality concept) which lead to distortions in decisions with respect to what would be optimal for the maximisation of one's own benefits.

10.19   This concept is illustrated in Figure 10.1. In this example, the effect of a behavioural bias is to lead to over-consumption of the product in question, because of the existence of a negative "internality". Some or all consumers over-estimate the benefits they will derive from consumption as a result of a cognitive error, and consequently they are willing to buy

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[153]   R. Herrnstein et al., Utility Maximization and Melioration: Internalitites, in Individual Choice, 6 *Journal of Behavioral Decision Making* 149, 150 (1993).

more at any given price than is optimal given their underlying set of preferences. The result is a reduction in consumers' welfare.

Figure 10.1: A Behavioural Bias considered as an "Internality"
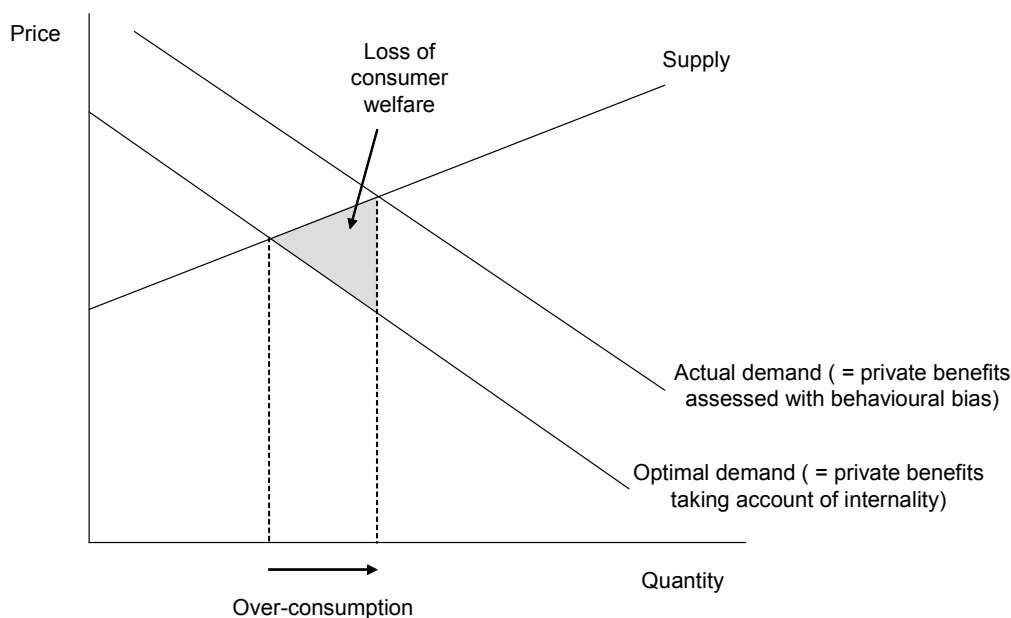
10.20 A similar diagram could be drawn to illustrate the effect of a positive "internality". In this case, the consumer would under-estimate the benefits he would derive from consumption, leading to under-consumption. Again, there would be a loss of consumer welfare.

A practical problem

10.21 The different welfare implications of theories based on preferences versus cognitive limitations is problematic, because the two alternatives are sometimes put forward as rival explanations of the same observed phenomenon. For example, both hyperbolic discounting (a preference-based model) and limited foresight (a cognitive-based model) can be put forward as possible explanations of individuals appearing to have an exaggerated preference for immediate reward.[154]

10.22 In such situations, the policy implications are ambiguous. We could intervene because we think consumers are making sub-optimal decisions (because of cognitive limitations), or we could argue that consumers are behaving perfectly rationally (it is just that their

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[154] To complicate matters further, there may also be explanations which can be offered within the framework of mainstream economics. For instance, an apparent preference for immediate reward might be explained as the result of individuals perceiving different levels of risk to be attached to promised outcomes at different points in time.

preferences do not behave in the way mainstream economics assumes) and that intervention is therefore unnecessary.

Exploitation of behavioural biases by firms

10.23 As well as direct welfare losses due to consumers making choices which do not maximise their own welfare, cognitive errors could also create circumstances in which firms are able to manipulate or otherwise exploit consumers to their own advantage. This would represent an additional source of consumer detriment.

10.24 Indeed, consumer detriment of this kind may also arise in the case of preference-based theories. For example, the "status quo bias" (put simply, where consumers have a preference for the status quo) could reduce the extent of consumer switching between firms. This in turn may allow firms to exploit market power (see section 8 of this report for a discussion of consumer detriment arising from market power).[155]

10.25 Some further examples of how firms might exploit lack of information and cognitive limitations on the part of consumers are given below:

(a) A firm may deceive consumers by making some false announcements about when a new product will be available. The false announcement (if taken at face value) may then induce some consumption decisions which are favourable to the firm. For example, a firm may announce that a new version of a product will be available shortly so as discourage (naïve) consumers from buying a competing product from another company. (One might argue that a firm concerned with its reputation will refrain from using such deceptive tactics; yet, this is not entirely convincing as the firm could easily argue it was unable to produce the new version in time for various other reasons.)

(b) A supermarket informed that consumers buy from the supermarket which charges the lowest prices on cereals can take advantage of this by charging a low price on cereals so as to appear cheap compared to competitors and by charging a high price on other goods so as to make excessive profits.

(c) A financial adviser might show charts on previous performances of some funds in order to increase the consumer's investment in the fund, while refraining from telling the consumer that the economic conditions (say the growth rate) have changed (deteriorated) compared to the review period in which the fund was assessed (lie by omission).

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[155] It is not entirely obvious that switching costs lead to consumer detriment. For instance, firms may compete in one period to build up market share which can then be exploited in future periods, thus changing the time profile of competition rather than its intensity. See discussion in our literature review of Klemperer (1995).

10.26   These examples have in common that some information conveyed by the firm or the financial adviser is incorrectly interpreted by the consumer and more knowledgeable agents (like firms or financial advisers) take advantage of this. A related question of interest is whether competition can eliminate these effects.

10.27   As a general comment, it sounds plausible to assume that there is a fundamental asymmetry in terms of cognitive abilities between more experienced agents (such as firms of financial advisers) and less experienced agents (such as the average consumer), thereby giving rise to the general possibility of consumer detriment (in the form of exploitation by firms).

Types of Behavioural Bias

10.28   This sub-section reviews and defines the principal types of observed behavioural bias, split into those best explained with anomalous preferences and those best explained with cognitive errors.

Anomalous preferences

10.29   *Time variant preferences*: people's preferences systematically change over time, and at each moment they value the present disproportionately over the future. For example people may pay a premium for express shipping to receive an item today instead of tomorrow, but not to receive an item in 20 days time instead of 21 days time.

10.30   *Loss aversion*: people value alternatives partly by whether they are seen as a loss or a gain, instead of just according to their objective outcome. For example, a decision to buy can be affected by whether a lower price is seen resulting from the application of a discount or the removal of a surcharge.

10.31   *Regret theory*: people avoid choices which involve a chance of becoming much worse off and experiencing regret. For example, people will place a disproportionate value on an alternative which has no risk compared with an alternative which involves some risk, if the risk could lead to regret (Loomes and Sugden 1982,[156] Eyster[157]).[158]

10.32   *Fairness and spite*: people make decisions influenced by perceptions of fairness and desert. For example, in laboratories people often choose to act in a fair way to strangers, even against their own direct self-interest (Rabin, 2000).

10.33   *Default bias*: people are more likely to choose an alternative which is indicated as a default, and their degree of preference goes beyond that which could be explained by the

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[156]   Loomes, Graham and Robert Sugden, "Regret Theory: An Alternative Theory of Rational Choice Under Uncertainty", *The Economic Journal*, Volume 92, Issue 368 (Dec., 1982), 805-824.
[157]   Eyster, Erik, "Rationalizing the Past: A Taste for Consistency," unpublished (2002).
[158]   This fits in with the discussion in section 6 of how rational, informed consumers would take the risk of *ex post* psychological detriment into account when making their decisions.

information conveyed in indicating that alternative as the default. For example, changing the default pension contribution rate has a strong effect on savings rates.

10.34 *Status quo bias (or endowment effect)*: people prefer options which are currently being used, above the objective value of those options. For example people may remain with a service provider even when the expected rewards for switching to another outweigh the costs of switching.

Cognitive errors

10.35 *Limited foresight*: people often fail to calculate the predictable future consequences of their decisions, even though they do care about those consequences. For example, when buying a computer printer people often fail to calculate the ongoing costs of ink cartridges (Gabaix and Laibson, 2005).[159]

10.36 *Framing*: people choose different alternatives depending on how a decision problem is structured, even when the structures are logically equivalent. For example, when a choice between medical treatments is described in terms of death rates patients make more conservative choices than when the same choice is described in terms of survival rates.

10.37 *Projection bias*: people make systematically poor predictions about their own future enjoyment and their own change in preferences. For example, people may buy significantly more food at a supermarket if they are hungry when they shop.

10.38 *Hot hand fallacy*: people attribute random variation to known factors, and become over-confident in these attributions. For example, people may be overconfident that a pattern in stock returns will continue based on evidence from only a short period.

10.39 *Gambler's fallacy*: people expect probability distributions to reproduce even in small samples. For example, a recent series of below-average returns on an investment may wrongly be thought to indicate that above-average returns are more likely in the future.

10.40 *Probability misjudgment*: people over-weight small probabilities in decisions involving uncertainty. For example, people may over-estimate the value of a lottery ticket which has only a small probability of winning (Machina).

10.41 *Money illusion*: people often fail to take inflation into account when making decisions about money over time. For example people may perceive a 2 per cent cut in real wages as unfair when there is no inflation (so the nominal wage decreases by 2 per cent), but as fair when there is 4 per cent inflation (so the nominal wage increases by 2 per cent) (Patinkin, 1969).

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[159]   Xavier Gabaix & David Laibson, 2006, "Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets," The Quarterly Journal of Economics, MIT Press, vol. 121(2), pages 505-540, May.

10.42   *Availability*: people's probability judgments are skewed by the mental "availability" of examples. For example, estimates of the danger in different activities can be skewed by a few memorable examples (Slovic, 1987).

10.43   *Choice overload*: people may make worse choices when given more alternatives. For example, someone who chooses to buy one flavour of jam out of a set of six alternatives may be unable to choose when given a set of 24 flavours, and decide not to buy any jam at all (Schwartz).

10.44   *Mental accounting*: people treat income and expenses differently depending on their source, even though objectively the money is equivalent. For example, money from a surprise lottery win is spent differently than money from an increase in the value of investments (Thaler, 1990).[160]

10.45   In the following sub-sections, we pick out five specific types of behavioural bias and analyse each one in some detail, as examples of how consumer biases may give rise to detriment. The biases we discuss are:

(a) Time variant preferences;

(b) Limited foresight and consumer myopia;

(c) Loss aversion;

(d) Framing effects;

(e) Projection bias.

10.46   Two of these examples (time variant preferences and loss aversion) relate to preference-based models, whereas the others relate to cognitive errors.

Time Variant Preferences

Definition and literature

10.47   The standard economic theory of consumer behaviour posits that individuals have preferences defined by utility functions, and that their decisions reflect those preferences, the available choices and budget constraints.

10.48   Some choices have effects over different period of time. To capture this aspect, the flow of utility levels is represented as the object of maximisation, where discount rates capture the typically higher value that people assign to consumption levels in a close period of time vis-à-vis more distant ones.

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[160]   Thaler R, "Anomalies: Saving, Fungibility, and Mental Accounts", *Journal of Economic Perspectives*, 4 (1990).

10.49   For instance, positive real interest rates are usually explained in terms of the fact that most people prefer, ceteris paribus, to consume today than tomorrow; interest is then a means to compensate them for giving up today's consumption in favour of tomorrow's. Similarly, when there are several periods ahead, one would prefer to receive a given amount of money in any period *t*, than in period *t+1*.

10.50   A basic feature of this representation of intertemporal preferences consists in their time consistency. To give an example, time consistency would mean that the relative weight assigned today to the utility level at time *t* (say, January 2007) with respect to time *t+1* (say, February 2007) is the same today as it is when January 2007 comes.

10.51   Everyday experience and evidence collected in experiments show that, in a number of circumstances, people's behaviour is inconsistent with the standard definition of intertemporal preferences. As a consequence, several economists describe individuals who exhibit this type of inconsistency as having time variant preferences.

10.52   In those circumstances, their choices are characterised by a bias in favour of present utility levels, i.e. a weight on the present which exceeds that which would be implied by time consistent discount rates.

10.53   Thaler[161] illustrates this point with reference to the example of someone who prefers one apple today to two apples tomorrow, but two apples in 51 days to one in 50 days. This preference ordering is clearly time-inconsistent: when 50 days have gone past, one apple will be preferred.

10.54   Self-control problems are connected to hyperbolic discount functions characterised by discount rates which are relatively high over short horizons and relatively low over long horizons.

10.55   The paper "Doing it now or later"[162] by Ted O'Donoughe and Matthew Rabin provides an analysis of how "sophisticated" consumers deal with the self-control problems that lead to time inconsistency. Sophisticated consumers are those who recognise their self-control problem, thereby taking current decisions on the basis of this knowledge. For instance, they know that deferring an unpleasant task today, on the basis of their present-biased preferences, will not result in the task being done tomorrow (the optimal choice from today's point of view).

10.56   Naïve consumers, in O'Donoughe and Rabin's framework, procrastinate over unpleasant activities and "preproperate" (do too soon) pleasant ones. "Sophistication" based on self-awareness ameliorates the procrastination problem: you do the unpleasant work now as you know that tomorrow the same self-control issue will affect your reasoning.

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[161]   Thaler, R, "Some empirical evidence on dynamic inconsistency", *Economic Letters,* VIII (1981), 201-207.
[162]   Ted O'Donoughe and Matthew Rabin (1999): "Doing it now or later"[162] by Ted O'Donoughe and Matthew Rabin, *The American Economic Review,* Vol. 89, No.1, March 1999, pp. 103-124.

Preproperation, however, could be exacerbated by sophistication, as the benefits of not doing something pleasant today are lowered by the expectation of having a self-control problem tomorrow.

10.57   Therefore, while naïve people will unambiguously tend to act suboptimally, e.g. they will undersave and overindulge in addictive behaviour, the effect of sophistication is ambiguous.

10.58   An influential contribution was provided by Laibson,[163] who describes the means by which people try to overcome "self-control" problems by deliberately choosing to limit the liquidity of their assets.   Home, durables and personal businesses are seen as similar to the "goose that laid golden eggs", i.e. assets which generate substantial benefits in the long-run but which are difficult to realise immediately.

10.59   Della Vigna and Malmendier provide theoretical reasoning and empirical findings on the effects of time variant preferences on market interaction.[164]   They focus on investment goods, characterised by immediate costs and delayed benefits, and on leisure goods with the opposite characteristics.   Examples of the former include health club attendance, and examples of the latter are consumption goods acquired via credit card usage.   Self control problems lead to lower consumption of investment goods and higher consumption of leisure goods.

10.60   The authors distinguish, in a similar fashion to O'Donoughe and Rabin, between naive and sophisticated consumers.   Naive consumers take their decision while being unaware that self-control problems will affect their future choices.   This includes their willingness to pay for periodic health club attendance, for instance.   It typically turns out that actual attendance is lower than what was estimated at the time of purchasing the subscription to attend the club.

10.61   In that respect, the main difference implied by "sophistication" is that consumers aware of self-control problems deliberately increase their willingness to pay as a means to give themselves stronger incentives to attend the health club, while the naive's willingness to pay is based on an incorrect estimation of future usage.

10.62   The authors endogenise the pricing policy of firms, with the firms taking consumers' time inconsistent preferences into account.   This results in increases in the lump-sum fee (e.g. subscription to the health club) and reductions in the per-usage fees.   Their empirical findings on health club pricing support this hypothesis.

10.63   The same logic is applied to leisure goods and the opposite conclusions are reached: lower introductory rates, e.g. for credit card usage, are employed to stimulate consumers

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[163]   David Laibson: "Golden eggs and hyperbolic discounting", *The Quarterly Journal of Economics,* May 1997.
[164]   Stefano Della Vigna and Ulrike Malmendier (2003): "Contract Design and Self-Control: Theory and Evidence", *The Quarterly Journal of Economics,* 119, 353-402, 2003.

who will then make substantial use of high cost services. Naïve consumers will make greater use of the credit line than they anticipated, while paying a price per usage for leisure goods is seen by sophisticated consumers as a useful device to limit over-consumption.

How time variant preferences can lead to consumer detriment

10.64 As discussed earlier, in order to argue that anomalous preferences lead to consumer detriment *per se*, the policy-maker would have to take a paternalistic view of preferences. In other words, the policy-maker would have to take the view that consumers' actual preferences were inappropriate, and hence judge outcomes relative to his own view of how he thought consumers *ought* to behave.

10.65 As we stated earlier, our initial view is that taking a paternalistic view of preferences is generally inappropriate, except in the case of consumption of goods or services which raise moral or ethical issues.

10.66 Nonetheless, for the purpose of presenting both sides of the argument, below we discuss how consumer detriment may arise from time variant preferences under two alternative approaches, namely:

(a) Imposing the policy-maker's view of appropriate preferences;

(b) Accepting consumers' actual preferences as legitimate.

Imposing the policy-maker's view of appropriate preferences

10.67 The view that time-inconsistent preferences lead to intrinsically suboptimal choices is connected with the idea of self-control problems (as in O'Donoughe and Rabin, and in Laibson contributions) or "bounded will-power" (as defined by Jolls, Sunstein and Thaler[165] when advocating for an approach against anti-paternalism).

10.68 It could therefore be argued that time variant preferences are linked to a psychological problem, i.e. the lack of self-control. This may raise questions about the appropriateness of using discounted utility functions, albeit suitably modified, to describe the maximisation problem, as might be done in the absence of factors which limit people's capacity to follow their own will.

10.69 The case of time inconsistent preferences is perhaps special in the sense that we can see consumer choices as led by different "selves". Arguably, one can be represented as the "rational self", who may have a taste in favour of consuming more in earlier periods than in later ones, but whose "intertemporal taste" does not vary as the given periods become

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[165] Christine Jolls, Cass R. Sunstein and Richard Thaler (1998),. "A Behavioral Approach to Law and Economics," 50 Stanford Law Review 1471-1550.

closer. The other is the consumer affected by self-control problems, who becomes eager to consume in a close period (e.g. "today") in a disproportionate fashion when compared with the "rational self".

10.70   A typical outcome would then entail a higher instantaneous utility level today, against lower levels in future periods.

10.71   One can illustrate the idea using the example of consumption of tasty but unhealthy food. According to the view that time inconsistency leads to "mistakes", consumer detriment may arise if this consumer would not consume unhealthy food on day x, say a month from now, if he could take a binding decision now, while at the same time this consumer eats a large quantity of unhealthy food as a result of daily decisions based on time inconsistency.[166]

10.72   In assessing whether there is any consumer detriment, it could therefore be argued that the appropriate benchmark is given by the choices that the "rational self" would take, in the absence of self-control problems.

10.73   However, we would reiterate that this would involve making a paternalistic judgment about consumers' preferences. It is not necessarily obvious that a consumer's preferences in one time period should be viewed as being either more or less rational than his preferences in another time period.

Accepting consumers' actual preferences as legitimate

10.74   Time variant preferences, on the other hand, may instead be viewed as being just as "legitimate" as any other type of preferences, so that they may cause consumer detriment only insofar as individuals are not fully aware of their own preferences, as is the case with the naïve consumer defined above.

10.75   The choices made by naïve consumers may be sub-optimal because they fail to recognise how their preferences will change through time. Effectively, such consumers suffer from a form of projection bias (as defined earlier), which is a type of cognitive error. Hence, consumer detriment may arise for naïve consumers, not because of their time variant preferences *per se*, but because of a cognitive limitation.

10.76   Consumer detriment may be exacerbated where firms take advantage of naïve consumers, e.g. by using a pricing structure which exploits the fact that these consumers make incorrect assumptions about their future preferences. An example would be charging high gym subscription fees and low per-usage charges, relying on the customer's over-optimism about attendance.

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[166]   The opposite view would instead see as illegitimate to denote the short/sighted self as less "right" than the long-term one, as in "Against the New Paternalism: Internalities and the Economics of Self-Control", by Glen Whitman. *Cato Institute Policy Analysis* no. 563, February 2006.

10.77 Consumer detriment cannot arise in these ways for sophisticated consumers because, although the preferences of such consumers may still change through time, they are fully aware of this and factor it into their decision-making.

10.78 There could, however, be consumer detriment if sophisticated consumers wished to purchase commitment devices but were unable to do so. This would effectively be a form of market failure (a missing market).

10.79 With hyperbolic discounting one is sometimes willing to commit to an action to be taken at a future stage that one would not choose if the decision was taken at that later stage. This applies to a smoker who would like smoking today if he could commit to quitting cigarettes in a year's time, but in a year's time he cannot quit smoking. This would also apply to a consumer who would like to commit to exercising in a health club throughout the year, but cannot find the resolve to do so when making decisions at 8 am each Saturday morning.

10.80 In such cases, the consumer might like to have access to contracts that somehow help him alleviate the commitment problem. For example, this could mean that the health club provides a very high fixed fee and a very low (under marginal cost) per-visit fee so that the incentives of "future selves" are better aligned with the preference of the "current self" who contemplates various types of contract (this is based on the work of Della Vigna and Malmendier).

10.81 In such contexts, it could be argued that consumer detriment occurs if the contracts required to improve the well functioning of the market (given this form of preferences) are not present.[167]

Characteristics of markets most likely to be affected

10.82 As pointed out in the literature, self-control problems are strongly related to consumption patterns characterised by the contrast between today's costs (or benefits) and later benefits (or costs).

10.83 Examples of markets which are affected are markets for goods regarded as addictive. In this case, the contrast is clear between immediate satisfaction of one's impulse and later harmful effects, possibly including psychological discomfort related to regret.

10.84 An individual aware of and dissatisfied with his own time variant preferences would probably consume less of an addictive product if he were able to use a perfect "commitment technology", by which decisions could be taken well in advance of the day in which the immediate pleasure would be reaped.

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[167] To give an analogy, this form of consumer detriment would be similar to the inefficiency caused by missing markets in general equilibrium frameworks.

10.85 Again we remark that this analysis does not involve those consumers who, for instance, would still choose to smoke a pack of cigarettes a day even if such technology were available. Those consumers do not exhibit time variant preferences.

10.86 Saving behaviour is also affected by self-control. As pointed out by Della Vigna and Malmendier, the usage of credit lines is likely to be affected and to exceed what the "rational self" would choose. These effects may be exacerbated if pricing policies by firms take behavioural biases into account.

10.87 Other markets likely to be affected involved the investment goods such as health clubs membership (see above). Again, besides suboptimal levels of consumptions, consumer detriment can also be related to pricing policies resulting in the transfer of surplus from consumers to producers.

Limited Foresight and Consumer Myopia

Definition and literature

10.88 Limited foresight is one of the cognitive limitations which in some cases prevents people from taking optimal choices given their underlying preferences. It includes myopia as a special case.

10.89 Limited foresight can be defined as the inability fully to understand the costs and benefits of decisions. In particular, it includes the inability to extend one's calculation of future costs and payoffs from a decision beyond a certain timeframe. This timeframe is normally represented in terms of periods during which decisions are taken by the agents involved in the interaction.

10.90 Limited foresight is found to provide the possibility of sustaining speculative (yet irrational) behaviour leading to bubbles in asset markets.[168]

10.91 Jehiel and Lilico[169] relate limited foresight to the fact that some people start smoking when they are young and try to quit as they become older. The former choice is related to the pleasantness of smoking conditional on having just started in the former period, and on the failure to recognise that smoking as a routine is less pleasant than not smoking after not having started. Such failure is overcome later on in life, when experience leads to an extended foresight which allows a better assessment of the long-term benefits of going through the difficult process of quitting smoking today.

10.92 It should be remarked that in Jehiel-Lilico's model future payoffs are weighted using standard exponential time consistent discounting so that *a priori* there is no commitment issue. What changes compared to the standard case is that the consumer is unable to

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[168] Philippe Jehiel (2005), "Analogy-based expectation equilibrium," Journal of Economic Theory.
[169] Philippe Jehiel, Andrew Lilico (2002): "Smoking today and stopping tomorrow: a limited foresight perspective", mimeo

anticipate the complete stream of future costs and payoffs resulting from his decisions, which for a fixed timeframe results in behaviour which looks like that generated by time variant preferences.

10.93   Lilico (2004) extends the insight of limited foresight models into the realms of savings, insurance and housing decisions, and analyses both the behaviour of "adapted" short-sighted agents, who are aware that distant future periods will one day come into play when taking decisions, and the behaviour of "naïve" agents.

10.94   The latter tend to make mistakes which typically result in undersaving and underinsuring against risk, and linking housing expenditure decisions to current income in an inefficient way.

10.95   Adapted short-sightedness tends to ameliorate the problems as far as housing and insurance decisions are concerned, but may exacerbate the undersaving problem, as agents know that in the immediately subsequent period (which they care about) a substantial part of what is saved today will be sacrificed in favour of consumption in the far future (which they do *not* care about today).

10.96   Limited foresight can be related to consumer myopia, which has been discussed in the context of the observed practice of firms charging high prices for add-on products and making them obscure to customers.   Gabaix and Laibson explain the behaviour of consumers in such contexts by suggesting that they fail to engage in Bayesian updating (a statistical method whereby prior estimates of probability are updated in light of experience).[170,171] Hence, consumers not only fail to foresee the number of periods over which the interaction is going to last, which for instance may make them overlook the significance of the price of patented ink cartridges when buying an ink-jet printer, but they may also fail to derive logical implications from "shrouding" behaviour on the part of the sellers. In particular, they may fail to recognise that hidden prices are likely to be very high (since if they were not, suppliers would have an incentive to say so).

How limited foresight and myopia can lead to consumer detriment

10.97   The effects of cognitive limitations such as limited foresight and myopia are more easily related to consumer detriment insofar as consumers would make choices which better maximised their welfare (given their underlying preferences) in the absence of such limitations.

10.98   A caveat consists in understanding that calculations made over a longer time frame may be "costly" and unpleasant *per se*, so that not all suboptimal decisions (vis-a-vis the ones

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[170]   Xavier Gabaix and David Laibson (2006): "Shrouded attributes, consumer myopia, and information suppression in competitive markets", *The Quarterly Journal of Economics,* 121(2).

[171]   Similarly, "unsophisticated" consumers are envisaged in the analysis by Glenn Ellison (2005): "A model of add-on pricing", *The Quarterly Journal of Economics,* 120(2), pp.585-637.

taken after cumbersome reasoning over extended time-frames) should be linked to consumer detriment. However, one should be careful in distinguishing between suboptimality related to wise satisficing criteria on the part of consumers, and when long-term evaluations are deliberately hampered by firm behaviour in situations where they could in principle be made simple.

10.99 As we have seen, detriment can therefore arise both in one-person decision problems and when consumers engage in a strategic interaction with sellers.

10.100 In the former case, detriment occurs because choices do not maximise the discounted utility of consumers because of limited foresight which impedes projection of all the consequences of the stream of decisions.

10.101 Consumption decisions therefore tend to be biased in favour of the instantaneous utility levels enjoyed in the present and near future periods, not due to their preferences but due to a cognitive limitation.

10.102 In strategic interaction, a wider concept of myopia spans over the inability not only to observe future consequences but also to interpret correctly the behaviour of the "opponent" in the market game, typically sellers.

10.103 As a consequence, the latter have latitude in defining pricing schemes which provide extra profits at the expense of consumers' expenditure, which are shown, e.g. in the add-on pricing models mentioned above, to be part of plausible equilibrium outcomes even in competitive settings.

Characteristics of markets most likely to be affected

10.104 Limited foresight and myopia are likely to be most of concern for goods which involve long-term consumption and usage and/or complex environments in which it is harder for consumers to assess the costs and benefits of their decisions.

10.105 Substances which generate addictions are again part of the picture, as in this case people fail to recognise the long term impact of today's consumption, both in terms of direct welfare consequences (e.g. on health) and also its effect on future choices (e.g. smoking can be difficult to quit once the habit has been started).

10.106 Insurance policies, housing and investment goods in general may also be purchased in sub-optimal quantity and quality combinations, whenever people are short-sighted. The same holds, but possibly in an opposite direction, with the usage of credit lines, most notably on credit cards. In the latter case, short-sightedness may be combined with consumer myopia which hinders a proper understanding of all conditions related to the use of credit.

10.107 Consumption of goods which come in bundles may also entail consumer detriment, as we have seen with the add-ons example. This may be the case whenever the prices and characteristics of some goods (e.g. ink cartridges, drinks in a hotel room, usage fees for

bank account holder etc.) included in bundles are, by their nature and sometimes by deliberate obfuscation on the part of sellers, less visible than the "main" goods they go together with.

Loss Aversion

Definition and literature

10.108 The central proposition of prospect theory, developed by Kahneman and Tversky,[172] is that the arguments of utility functions, i.e. wealth levels, consumption bundles, health etc., are usually considered by people not only in absolute terms, but also to a large extent with respect to some reference points.

10.109 Loss aversion is another facet of this theory. A given quantity or quality of a good, a given monetary outcome of financial transactions or lotteries etc. are carriers of high or low satisfaction levels depending on the comparison to the reference point.

10.110 In particular, a wide array of experimental evidence on how people behave in lotteries shows that people tend to be much more sensitive to losses than to gains. Rabin's (2000) analysis[173] shows how choice patterns go well beyond what standard economic analysis based on expected utility would predict, according to reasonable levels of risk aversion.

10.111 Following Kahneman, Knetsch and Thaler (1991),[174] the well-documented endowment effect and the status quo bias can be seen as "manifestations of an asymmetry of value" called loss aversion.

10.112 A series of experimental studies show that people develop aversion to losing an object that they are endowed with, typically at the start of an experiment. This results in remarkable differences in the "willingness to pay" and "willingness to accept": the amount that people who do not own an object (in experiments pens and mugs are typically used) are willing to spend in order to buy it is consistently lower that the typical amount at which "owners" are willing to sell.

10.113 The robustness of this phenomenon has been reinforced by observation of the relevance of the "ownership history", whereby having owned the object in the past increases the money valuation, and the irrelevance of wealth effects, when people endowed with a "mug or money" choice (i.e. being equivalently "rich") still exhibit less willingness to pay than the "mug owner" counterparts.[175]

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[172] See in particular Daniel Kahneman and Amos Tversky (1979): "Prospect theory: an analysis of decision under risk", *Econometrica*, 47(2), pp. 263-91.
[173] Matthew Rabin (2000), "Risk aversion and expected utility theory: a calibration theorem", *Econometrica*, 68(5), pp.1281-92
[174] Daniel Kahneman, Jack L. Knetsch and Richard Thaler (1991): "Anomalies: the endowment effect, loss aversion, and status quo bias", *The Journal of Economic Perspectives,* 5, 1, pp. 193-206.
[175] For a review of evidence on the endowment effect, see Daniel Kahneman, Jack L. Knetsch and Richard Thaler (1990): "Experimental tests of the endowment effect and the Coase theorem", *Journal of Political Economy*, 98, pp.1277-1284.

10.114 A conceptually similar phenomenon consists in the "status quo" bias, by which agents tend to avoid switching from existing situations, which may be defined in terms of investment portfolios, consumption bundles etc.

10.115 Significant status quo bias was found in terms of several experimental situations, including leaving unchanged an inherited portfolio of securities and cash, by Samuelson and Zeckhauser.[176] Observations in the field show instances where people tend to stick with the default when choosing the combination of reliability and rates for electricity consumption,[177] automobile insurance plan features[178] and retirement savings plans.[179]

10.116 Status quo bias is linked to the loss aversion tendency as the perceived risk of a disadvantageous outcome with respect to the reference point, in this case the status quo, looms larger than the possible advantages.

10.117 An interesting development in the economics literature consists in modelling the interaction between sellers and buyers in the light of frequently observed biases, as we have seen above.

10.118 In the case of loss aversion, interesting insights are provided in Heidhues and Köszegi (2004).[180] On the basis of assuming that loss averse consumers have in mind reference levels in terms of money and goods, they show how demand features drive the emergence of stylised facts such as sticky prices, countercyclical mark-ups and temporary sales and promotions.

How loss aversion can lead to consumer detriment

10.119 As pointed out above, when determining whether there is consumer detriment one has to be careful in distinguishing between situations in which outcomes are unfavourable to consumers in a way that consumers themselves would recognise, once they are able to make an assessment on the basis of their preferences with no significant impediment to rational reasoning, and outcomes which may well look "bad" in the eyes of an external reviewer but which are in fact consistent with preferences.

10.120 In the case of loss aversion, there may be cases in which consumers' tendency to stick with previous choices, or not to modify the existing situation, is rational both in terms of saving time and energies in determining the "optimal" choice, and in terms of avoiding

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[176] William Samuelson and Richard Zeckhauser (1988): "Status quo bias in decision-making", *Journal of Risk and Uncertainty* 1,7.

[177] Raymond Hartman, Michael J. Doane and Chi-Keung Woo, "Consumer rationality and the status quo", *Quarterly Journal of Economics*.

[178] Eric J. Johnson, John C. Hearshey, Howard Kunreuther and Jaqueline Meszaros (1993): "Framing, probability distortions and insurance decisions", *Journal of Risk and Uncertainty* , 7.

[179] James J. Choi, David Laibson, Brigitte C. Madrian and Andrew Metrick (2001): "For better or for worse: default effects and 401(K) saving behaviour", NBER Working Paper No. 8651.

[180] Paul Heidhues and Botond Köszegi (2004): "The Impact of Consumer Loss Aversion on Pricing", CIC Working Papers SP II 2004-17, Wissenschaftszentrum Berlin (WZB).

regret, which is found to be higher when the "wrong" choice had modified the situation – i.e. there was a loss with respect to the status quo "reference" point.

10.121 However, while it may be rational to "choose not to choose" on the consumer side, one has to be aware that there are cases in which the very definition of the reference point could lead to detrimental outcomes.

10.122 In the aforementioned analysis by Heidhues and Köszegi, for instance, it is shown that while in some cases firms may react to loss aversion by leaving prices unchanged, in some others they try to manipulate those reference points which constitute one of the bases of consumer choices.

10.123 Promotion and sales, for instance, are seen as geared towards increasing the probability that consumers assign to buying certain goods, so that the reference point includes positive levels of the goods which are being promoted.

10.124 In those cases, loss aversion as a behavioural bias leads to a demand schedule which is different from the one which would arise in absence of manipulation techniques. That is, the biased demand may arguably be different from that determined by the "rational self", and consumer detriment would result from the "internality effect" previously described.

10.125 The default or "status quo" situation can be affected by accidents of history, by firm behaviour, and by government intervention. Judging whether a society's default case could be improved is difficult.

10.126 When all consumers have the same default supplier for a service, due to historical accident, this is arguably a bad default case because the switching costs to consumers may be high and so the incumbent firm may be able wield significant market power.

10.127 Intervention may work to increase consumer surplus by changing the default case without causing any loss to consumers. Examples would be splitting up an incumbent firm or changing the default choices in income tax filing.

Characteristics of markets most likely to be affected

10.128 Markets for securities appear to be affected by loss aversion. In conjunction with "narrow bracketing", by which (among other effects) people tend to see single investment decisions in isolation instead of part of an overall strategy of building an optimal portfolio, loss aversion may be behind the widely observed equity premium phenomenon,[181] by which the extra returns of equity vis-à-vis bonds appear significantly higher than what would be derived from estimated risk aversion parameters.

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[181] Shlomo Benartzi and Richard Thaler (1995): "Myopic loss aversion and the equity premium puzzle", *Quarterly Journal of Economics*, 110 (1), pp. 73-92.

10.129 Markets in which default rules are commonly defined, such as the ones where goods are offered in competitive conditions by former monopolies (utilities being a typical case), are the ones where loss aversion and the related status quo biases may have important effects.

10.130 Consumer goods, as we have seen, may also be affected, if one accepts the idea that promotion, sales and other techniques used by sellers are aimed at manipulating consumers' reference points.

Framing Effects

Definition and literature

10.131 Framing effects refer to the way in which decisions are sometimes affected by the way in which the alternatives are presented.

10.132 Again, the classic examples come from the research conducted by Nobel Laureate Daniel Kahneman and the late Amos Tversky.

10.133 One frequently quoted example of framing effects is the "Asian disease".[182]   In this example, people are asked to imagine that 600 lives are risk, and are given the following alternatives:

(a)   Save 200 lives for sure; or

(b)   Save 600 lives with a probability of 1/3 and no-one with a probability of 2/3.

10.134 Given this choice, people typical opt for the first alternative.

10.135 However, in a companion experiment people are presented with exactly the same alternatives but expressed as follows:

(a)   400 people die for sure;

(b)   600 people die with probability 2/3, and none die with probability 1/3.

10.136 In this latter case, people typically opt for the second alternative.

10.137 The authors suggest that these apparently contradictory choices are driven by the effect of a "positive frame" (saving 200 people) as opposed to the "negative frame" (400 people dying for sure) in the way the alternatives are expressed.

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[182]   Amos Tversky and Daniel Kahneman (1981): "The framing of decisions and the psychology of choice", *Science*, 211, pp. 453-458.

10.138 The effects of positive *versus* negative framing is part of prospect theory. The above and other examples highlighted by Kahneman and Tversky's research show how behaviour exhibits patterns which, while they can be somewhat linked to preference traits such as loss aversion, also reveal fundamental inconsistencies with respect to a rational assessment of available alternatives.

10.139 Examples closer to "real life" situations, also mentioned by Kahneman and Tversky,[183] are linked to the effects of framing price differences in terms of discounts or surcharges. As pointed out by Thaler,[184] forgoing a discount is easier than accepting a surcharge, which encourages firms to respond to periods of low demand with discounts (which may be removed later) rather than with price decreases, as a future price increase would be seen as a loss by consumers. This effect appears to reinforce the behavioural economics explanation of sales and promotions mentioned earlier.

10.140 An interesting tax policy issue related to framing was presented by Schelling,[185] whereby tax tables can be constructed with:

(a) A childless family as the default, with exemptions for those couples with children;

(b) The modal two-child family as the default, with childless ones having to pay a premium.

10.141 Framing effects on people's judgement of tax policy include the fact that people seem to reject the idea of granting a bigger exemption to rich couples with children in the first frame, but to accept a larger tax premium for the childless rich family in the second frame.

10.142 Other experiments find a money illusion effect, whereby nominal wage increases below the rate of inflation are much more acceptable to workers than nominal wage cuts which are equivalent in real terms in times of low inflation.[186]

10.143 Framing effects are also related to the way in which suitably designed "frames" affect the saliency of outcomes. For instance, it has been argued that certain frames may lead people to overestimate the usually extremely small probability of large winnings in lotteries.[187]

10.144 In this and in other cases framing effects are linked to the heuristics that agents use in order to take decisions with a minimal cognitive effort. Representativeness is one such heuristic, by which probabilities of events are assessed in terms of how such events

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[183] ibidem

[184] Richard Thaler (1980): "Towards a positive theory of consumer choice", *Journal of Economic Behavior and Organization*, 1, pp. 39-60.

[185] Thomas Schelling (1981): "Economic reasoning and the ethics of policy", *Public interest* 63, pp.37-61.

[186] Daniel Kahneman, Jack Knetsch and Richard Thaler (1986): "Fairness as a constraint on profit seeking: entitlements in the market", *American Economic Review*, 76, pp. 728-741.

[187] Timur Kuran and Cass R. Sunstein (2000): "Controlling availability cascades", in *Behavioral Law and Economics,* Cass Sunstein eds.

match with situations people have in mind. People can find small probabilities difficult to represent cognitively, which can lead to overestimation.[188]

How framing effects can lead to consumer detriment

10.145 Framing effects can interact with preference traits such as loss aversion. However, these effects hinge fundamentally upon cognitive limitations, which prevent agents making an objective assessment of the choices they are presented with.

10.146 It appears then that the case is relatively strong for assuming that there is consumer detriment whenever framing effects lead to choices which are different (including in their material consequences) from the ones individuals would take in the absence of such effects.

10.147 There may still be room for caveats here, however. For instance, when taking some decisions based on probability evaluations, one may argue that at least some consumers are better off when left partially in the dark about real probabilities. It could be argued that smokers may prefer not to be enlightened about the actual risk of getting cancer, especially when they are not willing or able to quit.[189] Hence, it could be argued that risk-warning "frames" deemed appropriate by policy-makers in many contexts may harm some consumers.

10.148 Nevertheless, in many if not most cases where framing effects are at work, consumer detriment appears likely to arise. This is because being well informed about the characteristics of available alternatives can be regarded as a necessary condition for consumers to be able to make the appropriate choice, and frames may add noise to the environment in which agents perform their evaluations.

10.149 As we will see below, this can be particularly relevant when people get into debt. Failure to assess compound interest rates may lead to gross underestimation about the extra amount people end up paying in interest. The possible beneficial effect of the pleasure of paying "little by little" may not justify this extra payment, whenever frames mean that the full additional cost is not transparent to the consumer.

10.150 However, there may sometimes be difficulties in deciding what constitutes a "neutral" frame in presenting choices to consumers. For instance, in the example of the "Asian disease" described earlier, there is no objective answer as to whether it is more "neutral" to present the choice in terms of lives saved or deaths.

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[188] Colin Camerer, Samuel Issacharoff, George Loewenstein, Ted O' Donoughe and Matthew Rabin (2003): "Regulation for conservatives: Behavioral Economics and the case for Asymmetric Paternalism", University of Pennsylvania Law Review, June 2003.

[189] See Edward L. Glaeser (2006): "Paternalism and psychology", *The University of Chicago Law Review*, Vol. 73.

Characteristics of markets most likely to be affected

10.151 Some of the markets affected by framing are characterised by uncertainty over the future consequences of today's decisions.

10.152 As mentioned above, lotteries constitute a good example of where people may fail to make proper evaluations prior to their decisions.

10.153 As a consequence, gambling activity may be more widespread than what would be the case in the absence of biases relating to probability evaluations. Personal detriment is then caused by the fact that on average payoffs from gambling tend to be worse than the rosy expectations fostered by misleading framing; whereas structural detriment occurs because demand for gambling is greater than it would be in the absence of the framing-led bias, thus giving rise to a reduction in consumer welfare.

10.154 An extended concept of "gambling" consists in engaging in other risky activities. Keeping previous caveats in mind, a form of detriment may be seen if people with smoking-related diseases were genuinely unaware of the extent of the risk related associated with their habit.

10.155 Another example relates to "rent-to-own" establishments leasing consumer durables. As it turns out, most people (typically low-income consumers attracted by renting) eventually buy the products they rent, paying two or three times the normal retail price. Camerer et al (2003)[190] suggest that it may be that such consumers are not fully aware of the implicit interest rates they are paying.

10.156 The functioning of markets for credit may also be affected by framing bias, as credit terms may be not fully clear. The compounding of interest rates may be overlooked and the danger of losing a house when failing to comply with payment conditions of a mortgage may be underrated, when frames are geared towards highlighting the positive aspects of the contractual arrangements.

Projection Bias

Definition and literature

10.157 In the behavioural economic literature, projection bias is referred to as the tendency of people affected to underestimate the way their future tastes and other characteristics may differ from today's.

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[190] Colin Camerer, Samuel Issacharoff, George Loewenstein, Ted O' Donoughe and Matthew Rabin (2003): "Regulation for conservatives: Behavioral Economics and the case for Asymmetric Paternalism", University of Pennsylvania Law Review, June 2003.

10.158 The main contributions on modelling the economic impact of projection biases come from George Loewenstein and his colleagues.[191]

10.159 The empirical research they review includes biases related to medical circumstances, career, shopping and purchases of durable goods.

10.160 In the medical domain, there is evidence that people tend to adapt to changing circumstances in such a way that variations in the self-reported level of happiness are typically much smaller than what the same individuals had previously reckoned they would be. This tendency includes, for instance, higher self-reported quality of life by patients on dialysis compared with what non-patients assume,[192] and predictions of higher future happiness from receiving a kidney transplant and lower levels in the case of not receiving it, with respect to the actual levels that which are subsequently declared.[193]

10.161 The same tendency is confirmed in terms of overestimating the impact of career changes,[194] and is related to the endowment effect discussed earlier. While the effect is linked to loss aversion, it is also found that people tend to underestimate the impact that owning an object causes on the desire to keep it, i.e. on the assessment of the value of the object.

10.162 Another striking example of projection bias supports to the conventional wisdom of avoiding shopping on an empty stomach: hungry people tend to overestimate the future need for food.

10.163 Loewenstein, O'Donoughe and Rabin (2003) show the effect of projection bias both in relation to the widely studied phenomenon of habit formation, whereby current consumption levels negatively affect the level of utility derived from future consumption, and in relation to the purchase of durable goods. As explained in the following discussion, excessive purchasing of durable goods is seen as a negative outcome which frequently occurs as a result of projection bias.   Another negative effect can be over-consumption early in life in the presence of habit formation.

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[191] See in particular George Loewenstein, Ted O'Donoughe and Matthew Rabin (2003): "Projection bias in predicting future utility", *Quarterly Journal of Economics* and George Loewenstein and David Schkade (1999): "Wouldn't it be nice? Predicting future feelings", in Daniel Kahneman, Edward Diener and Norbert Schwartz, eds., *Well-being: the foundations of hedonic psychology*, New York, NY, Russell Sage Foundation Press and references therein.

[192] David L. Sackett and George W. Torrance (1978):"The utility of different health states a perceived by the general public", *Journal of Chronic Diseases,* 31, pp.697-704.

[193] Christopher Jepson, George Loewenstein and Peter Ubel (2001): "Actual versus estimated differences in quality of life before and after renal transplant", Working Paper, Department of Social and Decision Sciences, Carnegie Mellon University.

[194] Daniel T. Gilbert, Elizabeth C. Pinel, Timothy D. Wilson: "The future is now: temporal correction in affective forecasting", *Journal of Personality and Social Psychology*, 75, pp.617-638.

How projection bias can lead to consumer detriment

10.164 In the presence of habit formation, two phenomena occur: the current level of consumption reduces the utility of future consumption, and the marginal utility from consumption increases with the current level of consumption.

10.165 The first aspect involves a "negative internality", which, if taken into account, would tend to result in a reduction in the current level of consumption. A general result is therefore that rational people should choose a consumption profile in which consumption increases throughout their life.

10.166 People with projection bias will tend, following Loewenstein and colleagues, to choose a suboptimal consumption profile, namely, to consume too much early in life (and therefore to save less). This is due to the failure to recognise the changes in one's own utility function due to the habit formation phenomenon, which results in projecting the current utility function – or, in other words, the way consumption is turned into personal satisfaction – into the future.

10.167 As neglecting the "negative internality" results in over-consumption, and in turn also in excessive working effort to sustain consumption levels in the future, consumers will suffer detriment from projection bias in terms of welfare levels enjoyed during their life.

10.168 Detriment from a failure to take the endowment effect into account due to projection bias may arise indirectly, especially when miscalculations of others' reservation values lead to inefficiency in bargaining settings and to a failure to engage in beneficial exchanges.

10.169 Detriment from addiction may be exacerbated by projection bias insofar as one fails to recognise how future preferences are inherently changed when addicted. Hence, the decision to engage in consumption of substances may result from this bias, besides other phenomena mentioned above such as limited foresight or time variant preferences.

10.170 Decisions affecting future consumption patterns are also likely to be affected by projection bias. Shopping on an empty stomach, ordering food at the beginning of a meal in a restaurant, or the choice of expensive "all-you-can-eat" option, are classic examples of decisions which may be regretted later, when one realises the previous overestimation of the need of food.

10.171 In the domain of durable goods, projection bias can lead to decisions based on current preferences and to the erroneous belief that these will be felt over the lifetime of the product. Loewenstein, O'Donoughe and Rabin point out that over-purchasing can arise from the fact that the decision about whether or not to buy a durable product is not "one-shot" but may happen in at different points in time, since the decision not to buy a good is reversible whereas the decision to buy is typically not. Consumer detriment is most likely to occur when people's valuation of goods exhibits high variance over time, such that purchasing is likely to happen in a period when the valuation is higher than the typical value associated with owning the good.

10.172 Behaviour on the sellers' side may exacerbate consumer detriment when they engage in enticing techniques aimed at increasing the current valuation of their products, and when they exert pressure on consumers to make buying decisions in "hot states" when the high valuation occurs. Furthermore, the effect of projection bias on purchasing of durable goods may be reinforced by "intertemporal bundling", by which non-durable goods are turned into durables, for instance when people are in a state of enthusiasm over health clubs (e.g. due to the novelty effect during the first visit), vacation (e.g. in hot places when considered during winter) etc. Bundling is made by offering membership of health clubs or vacation sharing etc., so that projection bias possibly adds to the effects of self-control problems pointed out by Della Vigna, Malmendier and other authors (see earlier discussion).

Characteristics of markets most likely to be affected

10.173 The markets whose functioning is most likely to be affected by projection bias are those where current decisions have effects into the future, so that the way in which the profile of consumption affects utility levels is miscalculated.

10.174 We have already discussed the issue of durable goods, which are inherently consumed over a period of time where the valuation may change with respect to the moment in which the decision to buy was taken. Indeed, the moment of purchase may be characterised by a particularly high valuation with respect to the value that the consumer would normally associate with the good.

10.175 Markets for goods which are "intertemporally" bundled, e.g. via membership card offerings, may be subject to the same effects.

10.176 Projection bias may be stronger in affecting decisions wherever consumers are more prone to enticing selling techniques. A test-drive may, for instance, increase a consumer's momentary valuation of a new sports car.

10.177 Markets for food products, for which consumers' appetites vary substantially depending on whether they are hungry, are also likely to be affected by projection bias. This could lead to consumer detriment due to over-consumption of unhealthy food, as healthy products are typically more likely to be bought after cold reasoning.

10.178 A caveat may be appropriate here, as one could also argue that projection bias may lead to pleasure from anticipation of consumption which may also be reinforced by over-purchasing, which may counterbalance at least partially the subsequent diminishing of desire for the same food.

10.179 Similar reasoning may be applied to addictive substances, where projection bias leads to decisions which do not take fully into account the effect on future craving for those products.

10.180 Other products are also predictably subject to varying degrees of desire, e.g. holidays in sunny places evaluated during cold winter time. Overestimation may then lead to an

excessive willingness to pay and in turn to purchases which give rise to consumer detriment.

10.181 Finally, it was pointed out that projection bias may lead to over-consumption due to a failure to consider the habit formation phenomenon. Credit instruments, such as cards, high interest loans etc. may exacerbate detriment by increasing the option of over-purchasing today. Markets for those instruments may then both reinforce detriment related to consumption goods and also cause detriment due to excessive expenditure (vis-à-vis unbiased decision-making) on commissions and fees related to their usage.

11   DISTRIBUTIONAL ISSUES

11.1   This section looks at why distributional issues may be important and how measures of consumer detriment can be adapted to take account of the existence of vulnerable groups.   First, we discuss a number of introductory issues.   Second, we discuss distributional issues in the context of key aspects of this project – namely defining, measuring, and monitoring consumer detriment.

11.2   Distributional issues are closely related to our earlier analysis of consumer vulnerability in section 7, and to the work of Lunt (2005) on the same issue.   We do not repeat that discussion here, instead focusing on *practical* aspects of how to take account of distributional issues when analysing consumer detriment.

Introduction

11.3   Policy-makers may care about distributional issues for several reasons.   In particular:

(a)   Society generally cares most about negative impacts which fall on disadvantaged groups (e.g. the poor).

(b)   When trying to prevent harm it helps to know what types of consumers most need protecting as well as how they may lose out. (For example, this might help when targeting and designing an information campaign.)

11.4   The fact that markets are working efficiently does not necessarily mean that the outcomes are equitable.   Consequently, policy intervention may sometimes be justified on equity grounds even where it reduces efficiency.   More generally, policy-makers may be interested in the distributional effects of policy proposals, whether or not the primary purpose of the policy is to address an equity issue.

11.5   In appendix 2, we discuss distributional issues relating to producers versus consumers. We conclude that most transfers from consumers to producers represent consumer detriment even though they do not affect economic efficiency.   This is because (unless they lead to innovation or other beneficial market developments) they will adversely affect the well-being of consumers.

11.6   However, there is another distributional consideration which may also be important, which is how different groups or types of consumers are affected by consumer detriment. Different groups in society can be defined with respect to a range of characteristics, such as income, ethnicity, gender, age, location, or disability.   Even if consumers as a whole benefit from a policy, certain groups of consumers could be made worse off.

11.7   The distributional effects of a policy may be either positive or negative.   For example, society may view distributional implications as positive if winners are in low income groups and losers are in high income groups.

11.8   In our view, it is helpful to avoid defining vulnerable groups too widely. For instance, if the elderly are all assumed to be vulnerable to suffering detriment, then a large number of people will be labelled as "vulnerable consumers" even though there may be many people within this group who are not actually vulnerable. For example, some elderly people may have high incomes and be relatively unaffected by consumer detriment. The actual number of people who are truly vulnerable will be a smaller proportion of the population, and too broad a definition of "vulnerable consumer" may hinder attempts by policy-makers to target these people.

11.9   When assessing distributional impacts it can be important to distinguish between those who are legally responsible for doing something and those who bear the ultimate burden. For example, suppose that the government were to impose an obligation on firms in a certain market to offer their product to the elderly at a certain discount. If the market price for other consumers rose in response to this additional cost, then the costs of the policy would fall on other consumers rather than on firms.

11.10   Another important concept is the idea of *transfers*. Transfers are payments which are not associated with the provision of a product or service, and hence do not have any impact on economic efficiency. (They may, however, change consumption patterns.) They are important if policymakers are interested in impacts on particular groups of people.

11.11   In considering monetary estimates of consumer detriment, it can be important to recognise that a given sum of money will be valued different by consumers in different income groups. For example, suppose the value of annual detriment suffered by EU consumers in a given market is €X. For some European citizens with high earnings the effect of paying out €X each year could be relatively unimportant. However, for other consumers (e.g. those working in low paid jobs and finding it difficult to meet their outgoings), this amount could be important. The poorer person would value the fixed monetary sum more than the rich person.[195]

11.12   It could be argued that it is often best to leave social security systems to address equity concerns rather than creating distortions in markets that were otherwise functioning efficiently. For example, lowering prices for basic products to increase the welfare of poor people may be a sub-optimal way to reduce poverty because it will tend to create distortions in production and benefits may leak to rich people. On the other hand, it could be argued that the social security system creates distortions itself – for example, social security benefits and income tax may reduce the incentives individuals have for working.

11.13   In cases where a policy has negative distributional impacts, it may sometimes be possible to redesign policies to compensate losers. Alternatively, a package of policies could be

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[195]   In economics the value that people gain from consumption is referred to as utility. A person will use their money for the most valued uses first, gaining maximum utility. As their income increases a person will be able to spend money on other things that they do not value quite as much (or save their money to consume later). Thus as income increases the effect extra income has on utility will be reduced. This is called diminishing marginal utility of income.

constructed comprising policies with offsetting distributional impacts, such that the distributional impact of the overall package is neutral. (This latter approach could be used, for example, to prevent a policy causing tension in a context in which society was sharply divided into different groups.)

11.14 Finally, distributional issues can also be linked with the subject of psychological vulnerability. There are two elements to psychological vulnerability, both of which could be associated with psychological or socio-economic factors:

(a) *Vulnerability to situations of detriment:* some types of consumer are more likely to be affected by information asymmetry, non-rational behaviour or fraud, and hence end up in a situation where they experience detriment.

(b) *Greater psychological impact when detriment occurs:* some consumers could be affected more severely psychologically when they experience an instance of detriment. For instance, being scammed might create much greater resentment, anxiety or fear for some consumers than for others.

11.15 However, policy-makers are unlikely to be able to target support at people with particular psychological profiles, because this is inherently difficult to observe. Practical approaches to identifying consumers who may be psychologically vulnerable include:

(a) Measuring demographic factors that are correlated with certain psychological profiles. (For example, if there is a particular psychological profile which is susceptible to scams, and this profile is found particularly among (say) elderly females on low incomes, then a policy-maker might target consumer protection measures at this group.)

(b) Including questions within a survey from which the psychological profile of respondents can be deduced.

Measuring Distributional Impacts

11.16 In this sub-section we discuss how distributional issues might be taken into account when *measuring* consumer detriment. The practical issues which arise differ depending on whether the focus is on measuring personal detriment or structural detriment. Hence, we discuss the measurement issues for each of our definitions in turn.

Personal detriment

11.17 Distributional issues could be factored into the design of a survey relatively easily. For instance, surveys can identify the type of consumers who are responding (e.g. by asking for demographic information), allowing the results to be tested to see if one type of consumer suffers significantly more detriment than other types of consumer. It may also be possible to test whether this result only holds in a few selected industries or is a general tendency in all markets.

11.18 Once this information has been collected then the survey results can be adjusted to ensure that the proportions of the sample group accurately reflect the proportions of each group in the general population or in a particular market. Thus important groups can be given the correct weight in considering the level of detriment in different markets.

Structural detriment

11.19 The distributional effects of structural detriment will depend on the type of market imperfection.

11.20 For detriment which takes the form of a uniform price increase (e.g. due to monopoly, assuming that the monopoly does not engage in price discrimination), arguably the only information required to estimate the impact on vulnerable groups is the volume of sales in that market to vulnerable consumers and the magnitude of the price increase.[196]

11.21 When a product is banned, consumers who had relatively high valuations will be harmed more by the absence of the product. It may be that the valuation of the product is correlated with income (for instance, people on high incomes may be willing to pay more for time-saving products because they are likely to place a higher value on time). If this is the case, then apportioning consumer detriment to different income groups simply on the basis of the previous volume of transactions in the market will overstate the detriment experienced by low income groups (and correspondingly, understate the detriment experienced by high income groups).

11.22 However, in some markets consumers may be vulnerable because they have limited outside options. Thus a policy that stopped a bus service or closed a local shop in a rural village may disproportionately harm elderly residents because they may have few alternative methods of transport or retail outlets, whereas high earners are more likely to have access to a car and shops in other areas.

11.23 Where it seems likely that a policy may have particular effects on some vulnerable consumers it may be appropriate to engage in consultation with groups representing the vulnerable consumers. This will allow any assumptions that have been made about the options available to those vulnerable consumers to be checked.

Distributional weights

11.24 As discussed earlier, a given monetary gain or loss may be valued differently by consumers in different income groups. In particular, low income groups are likely to be affected more adversely by any given financial loss.

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[196] A complication is that consumers who only start to consume the product after the price fall will benefit by less than the full amount of the price reduction.

11.25   To take this into account, impacts on different income groups can be multiplied by distributional weights. It is also possible to derive weights which take into account other factors, such as the number of family members and the ages of any children.

11.26   More generally, it may be possible to weight financial impacts on different groups of people to take account of how "vulnerable" they are thought to be. The weights discussed above focus on differences in income, but other factors may also be relevant to how severely a group is affected by detriment. For instance, the weight applied to impacts on pensioner couples could be increased above that which would be appropriate on income grounds alone, if they are thought to be more psychologically affected by detriment than other consumers.

Marketing monitoring

11.27   If the presence of vulnerable consumers can lead to greater levels of consumer detriment then any indication that a particular market serves a lot of vulnerable consumers will be a warning that the market may need closer attention to protect these people. If a survey is used to estimate personal detriment, it should be possible to gain a more accurate picture of the types of consumer who are experiencing detriment by collecting demographic information from respondents.

11.28   Where some indication of the types of purchasers can be found (e.g. in the number of complaints made by different groups of consumers), then it should be possible to give greater weight to sectors in which vulnerable groups are strongly represented. In the absence of this, expenditure surveys should be able to provide a list of sectors in which low income groups account for a large proportion of sales (e.g. groceries, household goods or tobacco) and this list could be used as a filter to prioritise complaints that involve one of these sectors.

PART 3: ESTIMATING CONSUMER DETRIMENT

12   WHAT SHOULD BE MEASURED?

The issue

12.1   Our earlier discussion of the definition of consumer detriment[197] concluded that there are two broad approaches to defining the concept.   We suggested the following two definitions:

(a)   Structural detriment – loss of consumer welfare arising from market or regulatory failure.

(b)   Personal detriment – negative outcomes for individual consumers, relative to reasonable expectations.

12.2   This concept gives rise to the question: which of these types of consumer detriment should our methodology focus on measuring for any given purpose?

Usefulness to policy-makers

12.3   In answering the above question, we gave priority to considering what is likely to be most useful to policy-makers.

12.4   We understand from the project's terms of reference that DG SANCO is interested in estimating both:

(a)   The existing level of consumer detriment within a given market context; and

(b)   The impact of policy interventions on the level of consumer detriment (both *ex ante* and *ex post*).

12.5   We discuss these in turn below.

Existing level of consumer detriment

12.6   It is useful to begin by noting that an estimate of the existing level of detriment is not necessary to estimate the impact of policy. It is possible to work out the *difference* that a policy makes to consumers without knowing their *overall level* of well-being either beforehand or afterwards.

12.7   For example, let us consider a piece of proposed legislation which requires a monopolist which is charging an excessive price to reduce its price by €10. Further, let us assume that 50 million EU consumers purchase this product every year. In this case, it is relatively straightforward to calculate that consumers will benefit by €500 million per annum (under

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[197]   "Europe Economics' Current Thinking on the Definition of Consumer Detriment: A Short Note", 7 April 2006.

certain assumptions).[198]   In arriving at this estimate we did not need to know either the initial or the final level of consumer detriment in the market.

12.8   What then is the purpose of estimating the existing level of detriment? We suggest that the answer should be to allow policy-makers to:

(a)   Identify situations in which consumers are suffering problems, such that it may be appropriate to think about whether policy intervention could improve matters;

(b)   Direct resources and policy-making effort towards those areas where consumers appear to be suffering the greatest detriment.

12.9   In theory, an estimate of the existing level of detriment could also be used as a benchmark against which to monitor progress through time.   However, while this might sound appealing, we would recommend against it.   In its 2000 report on consumer detriment, the OFT estimated that it would cost £3m annually to run a survey large enough to provide certainty that year-on-year changes in the estimated level of detriment were statistically significant (see section 15).   Even then, this would not provide any information on whether the change in detriment was due to policy changes or to exogenous market developments, and it would thus provide little meaningful information to guide policy-makers.

12.10   It is important that the methodology used to estimate the existing level of detriment can be applied relatively quickly and easily.   A methodology which itself consumes a lot of resources would not be very useful in providing guidance on where they should be focused in the first place.

12.11   These practical considerations would appear to argue against estimating the existing level of *structural detriment*.   This is because (as explained below) the approach that is needed to produce an estimate of the loss of consumer welfare from market or regulatory failure will often be case-specific and thus time-consuming.   It potentially requires detailed analysis of one market at a time.

12.12   Suppose a policy-maker suspects a market power problem in a particular market.   In order to verify this and to produce a robust estimate of consumer detriment, he or she would need to:

(a)   Define the appropriate product and geographic market;

(b)   Assess whether companies have market power in the relevant market, which in turn requires analysis of the market structure of the market and whether there are barriers to entry;

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[198]   For simplicity, this example assumes that there is no impact on the availability or quality of the product, and no effect on the rate of innovation in the market. The calculation also ignores any increase in demand which might result from the price reduction.

(c) Examine the conduct of companies, to determine whether and how they are exercising market power;

(d) Estimate the loss to consumers.

12.13 To take another example, suppose a policy-maker suspects that consumers are being harmed in a particular market by the presence of information asymmetry. In order to investigate whether this is the case and to estimate the magnitude of any consumer detriment, the policy-maker would need to:

(a) Carry out a bottom-up analysis of whether consumers systematically lack sufficient information to make appropriately informed purchases;

(b) Analyse how consumers' purchasing decisions would change if they were more fully informed;

(c) Estimate the loss of consumer welfare arising from the sub-optimal decisions which consumers are making.

12.14 Alongside these practical difficulties, moving to a situation of no market failure is likely to be wholly implausible in some sectors (e.g. where the nature of the product means that there is inherently a serious asymmetry of information between the seller and buyer). In such cases, it is not clear that spending a lot of resource on measuring the existing level of structural detriment would be very useful.

12.15 On the other hand, an estimate of the existing level of *personal detriment* appears much more suited to the needs of the policy-maker. This is because it is possible to develop a generic methodology (e.g. a survey of consumers) which can be applied relatively easily across different types of sector in order to identify those areas in which consumers have experienced negative outcomes. We develop such a methodology later in this report.[199] The policy-maker could then use these estimates of detriment as a starting point in deciding whether the nature of these problems is such that it may be appropriate to think about policy intervention.

12.16 Hence, we conclude that in estimating the existing level of detriment it is appropriate to focus mainly on *personal detriment*, in order to guide the setting of priorities and the allocation of resources. Later in the report we also suggest a number of market monitoring indicators, some of which may help to identify situations in which certain types of structural detriment are present.

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[199] Consumers may be unaware that they have experienced negative outcomes when they have paid higher prices due to the existence of market power. The issue of whether there are any indicators which can be used to identify market power problems is addressed within the discussion of market monitoring indicators.

Impact of policy on consumer detriment

12.17   Assessing the impact of policy on consumer detriment raises somewhat different issues. The purpose here is not to guide overall priorities but to assist a policy-maker in deciding whether or not a specific policy change would be a good thing.

12.18   A high-level or qualitative assessment of the impact of the policy on *personal detriment* may sometimes be helpful. Camerer *et al* (2003) argue in favour of policies which protect consumers who might otherwise make errors, while imposing little or no cost on fully rational consumers.[200]   In assessing such a policy proposal, it would clearly be helpful to assess to what extent it might protect boundedly rational individuals from negative outcomes.

12.19   Nonetheless, we suggest that the concept of *structural detriment* should assume greater prominence when policy impacts are assessed than when the existing level of detriment. Is measured. This is for both conceptual and practical reasons:

(a)   Conceptually, it is possible to envisage situations in which focusing on personal detriment alone could mislead the policy-maker in deciding whether or not a specific policy was beneficial. This might happen because personal detriment takes into account only those consumers who have experienced problems, and does not recognise offsetting benefits for those consumers who enjoyed positive outcomes. This could in theory lead policy-makers to restrict or ban products which cause problems in a minority of cases (e.g. a healthcare treatment which provided benefits in most cases but caused side-effects for a minority of patients), even if this reduced aggregate consumer welfare.

(b)   In a practical sense, assessing the impact of a policy is inherently a case-specific exercise (whichever concept of detriment is being considered). Therefore, the above concerns about the need for a case-specific approach when measuring structural detriment carry less weight in this context.

12.20   Hence, we conclude that when assessing the impact of policy on consumer detriment both *personal detriment* and *structural detriment* are potentially useful concepts, depending on the precise context.

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[200]   Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoughe, T., and Rabin, M., "Regulation for conservatives: behavioural economics and the case for 'asymmetric paternalism'", University of Pennsylvania Law Review, June 2003.

13   ASSESSMENT OF ALTERNATIVES

13.1   This section begins by summarising our assessment of alternative methodologies for estimating consumer detriment.

13.2   We then provide a more detailed discussion of two of the possible methodologies set out in our proposal – consumer surveys and international price comparisons.

13.3   The other two approaches we mentioned in our proposal were empirical estimation of price mark-ups and theoretical market models. Specific examples of theoretical models and empirical approaches to estimating welfare loss were discussed earlier in section 8 (consumer detriment arising from market failures) and are not repeated in this section.

Assessment of Alternative Methodologies

13.4   We went through the following process in thinking about the best methodologies to measure consumer detriment:

(a)   We expanded the list of possible methodologies set out in our proposal, drawing on the results of the literature review and on brainstorming;

(b)   We derived a number of criteria for assessing the merits of any given methodology. These are:

- **Conceptually robust**: does it measure the right thing?

- **Measurable in practice**: are the data likely to be obtainable in practice?

- **Simple to apply**: would non-specialist desk officers within the European Commission find the methodology easy to use?

- **Quick and low cost**: can the methodology be applied quickly and at low cost?

- **Transparent to stakeholders**: is the methodology intuitive, such that stakeholders are likely to understand the results?

- **Widely applicable**: is the methodology flexible enough to apply to any situation where the European Commission might want to use it?

- **Repeatable**: can the methodology be repeated in new situations, or is reliant on one-off data from the past?

(c)   We analysed the strengths and weaknesses of the various methodologies, in particular by assessing them qualitatively against these criteria;

(d)   Based on this analysis, we drew some conclusions about the most appropriate methodology to use in estimating consumer detriment.

13.5   The first three steps of this analysis are set out in Table 13.1 on the following two pages. The first column lists various possible methodologies, divided into broad groups.[201] The columns shaded green (and with the diagonal lines) use tick marks to show which of the types and sources of consumer detriment each methodology could potentially be used to estimate. Finally, the columns shaded yellow (and without the diagonal lines) give our initial judgment of which criteria each policy is most likely to fail on, shown using crosses.

13.6   Some caveats should be borne in mind:

(a)   The assessment unavoidably includes an element of judgment. Consequently, some of the individual results could legitimately be debated, particularly where it was not possible to specify the methodology in anything but very general terms.[202]

(b)   The methodologies cannot be compared simply by adding up the number of criteria on which they fail. This is because:

– It may not be appropriate to place equal weight on all of the criteria;

– Consideration needs to be given to how badly a particular methodology may fail on each criterion.

13.7   Nonetheless, while the assessment shown in the table can be refined, we believe that the overall conclusions that we have drawn from this analysis (discussed later) are appropriate.

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[201]   The list of methodologies is unlikely to be exhaustive, given that there are countless theoretical and empirical models discussed in the economics literature which can be used to analyse specific types of situation.

[202]   For example, whether a "simulation model based on assumed behaviour" is conceptually robust is likely to be case-specific, as it will depend to a large extent on whether the assumptions made about behaviour are appropriate.

Table 13.1: Assessment of Methodologies

Methodology	What type of detriment can it measure?							Does it fail on any of the criteria?						
	Personal detriment	Structural detriment (by source)						Conceptually robust	Measurable in practice	Simple to apply	Quick and low cost	Transparent to stakeholders	Widely applicable	Repeatable
		Market power	Information problems	Innovation spillovers	Other externalities	Regulatory failure	Behavioural biases							
Consumer outcomes														
Consumer surveys	✔		✔		✔		✔				✘			
Complaints with adjustments (e.g. for non-complainants and for detriment per complaint)	✔							✘	✘					
Measuring word-of-mouth (WOM)	✔							✘	✘	✘	✘			
Mystery shopping	✔									✘	✘			
Empirical evidence of market power														
Collection of data on price mark-ups		✔						✘	✘					
Estimation of "excess profitability"		✔						✘	✘					
Tobin's Q		✔						✘	✘				✘	
Impacts on competitors' share prices		✔						✘	✘			✘	✘	
Theoretical market models (market power)														
Cournot model		✔							✘	✘		✘	✘	
Bertrand model		✔							✘	✘		✘	✘	
Stackleberg model		✔							✘	✘		✘	✘	
Price leadership model		✔							✘	✘		✘	✘	
Monopolist with a fringe model		✔							✘	✘		✘	✘	
Cournot with fringe model		✔							✘	✘		✘	✘	
Linear "but for" price		✔							✘	✘		✘	✘	

Theoretical market models (information)														
Switching cost model		✔	✔		✔					✗		✗	✗	
Hotelling model		✔	✔		✔			✗	✗			✗	✗	
Model of imperfect quality information (OFT paper)			✔					✗	✗	✗	✗	✗		
Other modelling approaches														
Simulation model based on assumed behaviour		✔	✔	✔	✔	✔	✔	✗		✗	✗	✗	✗	
Game theoretic models		✔	✔	✔	✔	✔	✔		✗	✗	✗	✗	✗	
Sectoral macro models or CGEM		✔	✔	✔	✔	✔		✗		✗	✗	✗		
Benchmarking														
Price benchmarking within EU		✔	✔		✔	✔		✗	✗		✗		✗	
Benchmarking against analogous markets - static econometric model		✔	✔	✔	✔	✔			✗	✗			✗	
Benchmarking against analogous markets – dynamic price path		✔	✔	✔	✔	✔		✗					✗	
Legal precedents														
Evidence from awards in court cases	✔	✔	✔						✗				✗	✗
Evidence from competition authority cases		✔							✗				✗	✗
Measures of opinion														
Expert opinion about how much detriment exists	✔	✔	✔	✔	✔	✔	✔	✗			✗		✗	
Count of academic studies and citations	✔	✔	✔	✔	✔	✔	✔	✗	✗				✗	
Measures of "fuss" (e.g. consumer campaigns, number of competition cases, column inches in the press)	✔							✗	✗				✗	
Other														
Controlled experiments or games	✔		✔		✔	✔	✔	✗		✗	✗		✗	
Estimating rate of change of consumer surplus due to innovation				✔				✗	✗				✗	
Comparing welfare effects for rational / non-rational consumers	✔						✔		✗	✗	✗			

Our proposed approach

13.8   Below we discuss our proposed approach to estimating the existing level of consumer detriment, and to estimating the impact of policy.

Estimating the existing level of consumer detriment

13.9   As discussed earlier, we propose to focus on personal detriment when measuring the existing level of consumer detriment.

13.10   Of those methodologies which can be used to estimate personal detriment, we believe that the best approach is a **survey of consumers**.   Provided that the survey is appropriately designed, we suggest that this approach is conceptually robust, measurable in practice, relatively simple to apply, transparent, widely applicable and repeatable. The main caveat to bear in mind is the cost and time required to run a survey.

13.11   By way of contrast:

(a)   Although we view consumer complaints as a useful indicator, our analysis suggests that there are various potential biases in complaint data which mean that they do not (on their own) provide a reliable measure of consumer detriment. For example, there is evidence that for every consumer who complains, there may be many others who suffer detriment but do not complain;[203]

(b)   Measures of opinion (e.g. consumer campaigns, press column inches) may be useful in informing the Commission of what stakeholders think, but are too subject to bias and manipulation to form a basis for policy-making;

(c)   Controlled experiments or games would have to be designed on a case-specific basis (e.g. to capture the specific characteristics of a particular market or type of transaction), and are likely to be resource-intensive. This makes them unsuitable as a generic method for estimating the existing level of consumer detriment in different sectors.

Estimating the impact of policy on consumer detriment

13.12   As discussed earlier, we suggest that when estimating the impact of policy both personal detriment and structural detriment are potentially relevant, depending on the precise context.

13.13   After careful consideration, we have concluded that none of the specific approaches shown in the table can be applied sufficiently widely to be useful to the Commission as a simple generic tool to assess the impact of policy on consumers. This is because each

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[203]   The use that can be made of consumer complaints is covered in sections 17, 18 and 24.

individual methodology can only deal with certain specific sources of detriment and/or is only applicable under certain limited conditions.[204]

13.14 Further, for many of the methodologies it is unclear how they could be used to assess policy impacts, as opposed to analysing the existing situation in a market. For example, consider the "Cournot model", which is a theoretical economic model used to analyse a certain type of competition (see section 8). There are many possible policies to promote competition (e.g. compulsory publication of prices in a certain format) which could not easily be analysed by adjusting any of the parameters of this model.

13.15 In the light of these considerations, we have adopted a different approach. Our approach is to provide a **handbook for desk officers**, which sets out the **principles, techniques and processes** they might use to estimate the impact of policy on consumers This is analogous to the existing guidelines which exist for carrying out impact assessment more broadly. The handbook covers both personal and structural detriment, with guidance on where each concept is most relevant.

13.16 We believe that this handbook will be far more useful to the Commission than developing a modelling approach which is likely to be applicable only in very limited circumstances.

. Summary of our assessment

13.17 In summary, the outcome of our assessment is that:

(a) The best method of measuring the existing level of consumer detriment is a survey of consumers. (As discussed later, we also suggest a number of market monitoring indicators.)

(b) We have provided DG SANCO with a handbook for desk officers setting out the principles, techniques and processes which can be used to estimate the impact of policy changes on consumer detriment.

Consumer Surveys

13.18 A survey involves studying a subset (a sample) of a group of interest in order to draw conclusions about the whole group (the population). The sample reflects the characteristics of the population from which it is drawn. Consumer surveys typically involve participants answering a standard set of questions (a questionnaire), after which answers are collated and analysed.

13.19 In our proposal to the Commission we said:

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[204] The table suggests that some methodologies (e.g. "game theoretic models") can be applied to many different sources of consumer detriment. However, this may give a misleading impression, as within this broad category very different models are likely to be necessary to deal with different types of situation.

"A possible methodology consists in conducting one or more surveys, asking consumers directly if they had experienced problems with any goods and services they have purchased and to quantify the costs caused by these problems. This is the approach followed by a recent study by the UK OFT…

"However, the survey approach also has limitations. For instance, it does not cover problems that remain undetected by consumers, such as those arising from market power (where the consumer may be unaware that prices exceed costs). Furthermore, it might be difficult to cover the consumer detriment caused by the stress that dealing with suppliers can cause, although in principle it might be possible to design surveys and statistical methodologies to cover this aspect, drawing for instance on the econometric techniques employed in the literature on economic well-being….

13.20 In this sub-section we describe the merits and drawbacks of using a survey for estimating personal consumer detriment. We also discuss the different types of survey and their strengths and weaknesses.

Merits and drawbacks of consumer surveys

13.21 The merits of using a survey to measure personal consumer detriment include:

(a) *Opportunity to gather the information required*. With careful survey design and wording (and these are important conditions) it is possible to collect precisely the information required for a reasonable estimate of personal detriment.

(b) *Sample choice*. Questionnaires allow access to the views and experiences of a wide range of consumers. Carrying out a survey should allow the Commission to obtain results from a properly representative sample of consumers, or, where relevant, from a specified group, such as low income households or ethnic groups.

(c) *Statistical analysis*. The raw data collected via a survey should allow the carrying out of a broad range of statistical analyses.

(d) *Repetition possible*. Once a suitable questionnaire has been designed it can be repeated at the required intervals. Repeat costs would generally be lower than first costs as there would be no need to redesign the survey.

13.22 The drawbacks of using surveys to measure personal consumer detriment include:

(a) *Cost*. As explained later, the costs of a survey vary widely according to the type of survey selected. Personal interviews will tend to cost more than respondent-completed questionnaires, and face-to-face interviews more than telephone interviews. Other important influences on cost are the length and complexity of the questionnaire, the sample size required, and the difficulty of identifying particular sub-groups. As well as they costs of carrying out the questionnaire there are design and (possibly) translation costs, which can also be expensive.

(b) *Cannot capture concept exactly*. As our proposed definition of personal consumer detriment is based on "reasonable expectations" rather than simply "expectations", it may be difficult to capture the concept exactly. This is because participants' responses will not include detriment that they are unaware of (which could fall within the concept of our definition), and might include instances where they were dissatisfied because their expectations were unrealistic (which would fall outside our definition).

(c) *Not based on actual behaviour*. Where surveys are based on what consumers say they think or do rather than on observed behaviour, they may carry the risk that the results will be more subjective than (say) using complaint data.

(d) *Danger of biases if survey is not well designed*. There are a number of issues that need to be considered when designing the survey, such as framing effects, in order to prevent results from being biased. Design issues are discussed more fully later in section 15.

(e) *Difficult to correct mistakes*. Because the cost of re-running a survey (even if that is possible) can be very high, it is extremely important that the questionnaire is designed correctly.[205] In particular, questions must be unambiguous and not give rise to responses which cannot be compared across respondents.

Types of Survey

13.23 Surveys can generally be divided into three types: written surveys, oral surveys and electronic surveys. Each type of survey has particular strengths and weaknesses.

Written surveys

13.24 Written surveys involve respondents completing questionnaires themselves. Types of written survey include: postal surveys, group-administered questionnaires and personally delivered surveys.

13.25 Strengths of postal surveys include:

(a) *Low cost*. Postal surveys are low in cost when compared to some other methods of surveying such as face-to-face, group-administered and personally delivered.

(b) *Convenience*. Participants are able to work on the surveys at their own leisure.

(c) *Low bias*. As there is no personal contact between the researcher and the respondent, there is little chance for personal bias based on first impressions to alter the responses to the survey.

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[205] For example, it is only rarely possible to go back to the original respondents if the questionnaire proves to be defective in some way.

(d) *Large samples are possible.* It is possible to reach a large number of potential respondents.

13.26 Weaknesses of postal surveys include:

(a) *Response rate.* Compared with other survey methods such as face-to-face and telephone, postal surveys exhibit a low response rate. It is difficult to generalise but 25 per cent is a typical maximum, and rates of around only 5 per cent are not uncommon. In some countries, it is now quite common for survey companies to include a gift, or the promise of a gift, to each respondent who completes and returns a questionnaire. This can increase the response rate, but adds significantly to costs.

(b) *Bias in who responds.* The people who choose to respond to a written survey may not be representative of the population as a whole.

(c) *Respondent requirements.* Written surveys require that respondents have the literacy and language capability to answer accurately, and the patience to complete the entire questionnaire.

Personally delivered questionnaires

13.27 Personally delivered questionnaires involve the researcher in delivering the questionnaire to participants in person, and sometimes in collecting the responses at an agreed time. This type of survey has similar strengths and weaknesses to postal questionnaires except that they are likely to have a greater response rate because they allow the researcher to make personal contact with the participants. The researcher is therefore able to explain the importance of the survey and answer any questions or concerns the respondent might have.

13.28 Personally delivered questionnaires are likely to cost more than postal surveys because of the greater time involved. The sample of population that can be surveyed is therefore likely to be smaller.

Group administered questionnaires

13.29 Group-administered questionnaires involve bringing participants together in a group and giving them the questionnaire at the same time. Surveys administered to a sample of participants in a group setting virtually guarantee a high response rate. The weaknesses of this type of written survey are that it requires a small sample and a slot of time that is convenient for all respondents.

Oral surveys

13.30 Oral surveys involve an interviewer reading questions to respondents and noting their responses. Oral surveys are generally either face-to-face or over the telephone.

13.31 Strengths of oral surveys include:

(a) *Control over sample.* The researcher has more control over the response rate than with some other types of survey. Unlike postal surveys where the researcher must wait to see how many respondents reply, a researcher can, if resources permit, continue to interview participants until the required sample is achieved.

(b) *Question flexibility.* As oral surveys involve personal contact between the interviewer and respondent they potentially allow the interviewer to clarify questions for the interviewee, react to the interviewee's situation, probe for more detail and ask complex questions.

13.32 Weaknesses of oral surveys include:

(a) *Cost.* Compared with written and electronic surveys, face-to-face and telephone surveys are expensive.

(b) *Question limitations.* Certain types of questions may not be appropriate for this type of survey. For example, in a phone survey, where the respondent is not able to see the questionnaire, it may be difficult for a respondent to remember all the possible answers to a question without a visual reminder as to what those choices are. Conversely, in a face-to-face interview, certain types of question may be a source of awkwardness between interviewer and interviewee, for example on matters such as diet, finance, sex, or alcohol usage.

13.33 Oral surveys may be "tailor-made" to a particular purpose or sample or may sometimes be achievable by means of an "Omnibus" survey. An Omnibus survey is one in which the questionnaires of several different clients are processed, face-to-face, in front of the respondent. Each questionnaire needs to be relatively short and simple, but the Omnibus approach can be very cost effective compared with a "tailor-made" survey. Characteristically, the major survey organisations undertake Omnibus surveys every two weeks and cover 2,000 respondents in each "wave" of interviewing. The sample is usually a quota-based sample (i.e. it captures a sample based on known proportions of people with certain demographic characteristics) rather than a true random sample. In practice, however, the differences that might arise between a quota-based sample and a true random sample are often immaterial.

Electronic surveys

13.34 Electronic surveys can take many forms – they can be distributed via e-mail, posted on the web or distributed via computers in public areas such as libraries.

13.35 Strengths of electronic surveys include:

(a) *Low cost.* It is much less expensive to send out questionnaires electronically than to pay for postage or interviewers.

(b) *Speed.* Questionnaires can travel between respondents and researchers in seconds.

(c) *More candid responses.* Respondents may answer more honestly with electronic surveys than with written surveys or interviews, although there is a school of thought that suggests that some respondents will simply play the fool with the questions.

(d) *Ease of editing/analysis.* It is relatively easy to make changes to electronic questionnaires, and to copy and sort data.

(e) *Large samples are possible.* It is possible to reach a very large number of potential respondents, and coverage can be global.

13.36   Weaknesses of electronic surveys include:

(a) *Sample limitations.* The population and sample is limited to those with access to the internet.

(b) *Bias in who responds.* The people who choose to respond to an electronic survey may not be representative of the population as a whole.

(c) *Potential technical problems.* Computers may give rise to more technical problems than oral or written forms of communication.

(d) *Potentially low response rate.* Depending on who the survey is distributed to, response rates could be very low.

International Price Comparisons

13.37   This sub-section discusses the advantages and disadvantages of using international price comparisons as a way of measuring consumer detriment. While price comparisons could be made with countries outside the EU, the discussion focuses particularly on the possibility of using price comparisons between EU Member States.

13.38   We first discuss conceptual issues surrounding the usefulness of international price comparisons, and then discuss some practical measurement problems.

Conceptual issues

13.39   The reason why international price differences may be relevant is that if consumers in some countries are paying more for a product or service than consumers in another country, then this could (under certain circumstances) suggest that consumers paying the higher price are suffering detriment.

13.40   In Britain the phrase "Rip-off Britain" was coined in the late 1990s to express dissatisfaction with the higher price of certain products in Britain compared with other

countries. Effectively, international price differences were used to argue that British consumers were being charged excessive prices and were thus suffering detriment.[206]

13.41   In an "Internal Market Scoreboard" paper published in May 2001, the Commission used price comparisons for food and electronic products to examine how effectively the Internal Market was working. The paper concluded, for example, that EU consumers could save on average 12 per cent on electronic products if they bought items individually at the lowest possible price available within the EU.[207] Further analysis of price differences within the EU was published in 2004.[208]

13.42   However, there are many reasons why prices for some goods and services could legitimately differ between countries, without there being any consumer detriment. In particular, for non-tradable products (e.g. hairdressing) price differences might arise from differences in the cost of producing the good or service in each country (e.g. because of different wage rates).

13.43   The circumstances in which we would expect prices (exclusive of tax) to be the same across countries are relatively limited. In particular, we would generally expect international price equalisation only for goods and services which are:

(a)   Homogenous, such that price differences cannot be explained by differences in product characteristics;

(b)   Tradable, such that there is a single European or international market with a single market price; and

(c)   Cheap to transport, such that price differences do not arise as a result of the cost of transportation from one country to another.

13.44   For products which have these characteristics, we would expect price differences between countries to be eroded, in the absence of market imperfections, by trade and arbitrage. Arbitrageurs would have an incentive to buy the product in low-price countries and resell it in high-price countries, thus placing upward pressure on prices in the former and downward pressure on prices in the latter. We would expect this process of arbitrage to continue until prices were equal.

13.45   Hence, the existence of international price differences for products which have these characteristics could indicate that the presence of consumer detriment is due to a market imperfection. For example, this may result from:

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[206]   See http://en.wikipedia.org/wiki/Ripoff_Britain and http://www.rip-off.co.uk/
[207]   http://www.europa.eu.int/comm/internal_market/score/docs/score08/score8_en.pdf
[208]   http://www.europa.eu.int/comm/internal_market/score/docs/relateddocs/2004-prices-paper_en.pdf

(a) Market power. A company with market power may be able to charge different prices to consumers in different countries, based on their willingness to pay. However, for this to be sustainable the company has to be able to prevent arbitrage by third parties (e.g. by including "no resale" clauses in contracts).

(b) Information problems, where price differences are sustained as a result of consumers not being aware that they could obtain products more cheaply from importers or suppliers in other countries.

(c) Trade barriers, which can limit the ability of market forces to equalise prices across national boundaries. Although there are no tariff barriers to trade within the EU, there may sometimes be non-tariff barriers (e.g. differences in product regulations between Member States).

13.46 In these circumstances, it could be argued that there is some restriction or distortion of trade within the Internal Market which is causing consumer detriment, and thus that there is a potential case for policy intervention.

13.47 However, care is needed, as there could sometimes be legitimate reasons why international price differences may exist even for such products. For example, differences in product regulations which have the effect of restricting trade could reflect democratic choices made by citizens in each country. A hypothetical example would be if a Member State introduced a requirement to label certain products in two languages to keep alive a traditional language.

13.48 Particular issues arise when international price differences are caused by the exercise of market power. In economic theory, a monopolist which charges a different price to different segments of its market is said to be engaging in "third-degree price discrimination". Economic theory suggests that the welfare effects of such price discrimination (compared with a situation in which a monopolist exercises market power but does not price discriminate) are ambiguous. In some cases, the ability to engage in such price discrimination may give the monopolist an incentive to reduce output, in which case welfare will fall. However, in other cases, the monopolist may have an incentive to increase output, in which case the welfare effects of such price discrimination may be either positive or negative, depending on the precise conditions.[209]

13.49 It might be argued at this point that we should be comparing a price-discriminating monopolist with a competitive market rather than with a monopolist which cannot price

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[209] On the one hand, the fact that the monopolist increases total output will tend to increase welfare. On the other hand, the output that is produced will be allocated inefficiently between consumers (as a result of the fact that different segments of the market face different prices). Where the first effect outweighs the second, the ability of a monopolist to engage in third-degree price discrimination will be welfare-enhancing overall.

discriminate. However, this may not be appropriate in markets in which intellectual property rights play an important role.[210]

13.50 The purpose of intellectual property law is to grant innovators temporary market power, so as to allow them to earn rewards from successful innovations. In this way, firms are given incentives to engage in research and development (R&D) and to innovate. As discussed in section 8, innovation can provide benefits to consumers when new or better quality products emerge, or when it leads to cost reductions for existing products (for example, in the case of process innovations).

13.51 Hence, in markets where innovation is important, it may be in consumers' long-term interests for firms to be granted temporary market power through the grant of intellectual property rights, and it may (under certain conditions) be welfare-enhancing for firms with such market power to price-discriminate between consumers in different countries. It could be misguided to seek to eliminate international price differences in such cases, even though the product may be homogenous, tradeable and cheap to transport.

13.52 A practical example in which these issues arise is pharmaceuticals. It is often argued that international price differences for in-patent pharmaceutical products are both efficient and equitable (see, for example, Danzon (2003)), in that they allow firms to recover R&D costs in a way which minimises effects on drug consumption, and that they allow low-income countries to gain more affordable access to drugs.

13.53 In summary, then, international price comparisons can provide a useful indication of whether there is consumer detriment only in certain limited circumstances.

Practical issues

13.54 In addition to the conceptual difficulties discussed above, there are a number of methodological difficulties in carrying out meaningful price comparisons between countries. As a consequence, the results of the price comparison exercise are likely to be sensitive to the methodological approach adopted.

13.55 One set of issues concerns what type of price should be compared between countries. For instance:

(a) Should wholesale or retail prices be compared?

(b) If prices differ between customer groups within each country, which customer group (or groups) should be used for the analysis?[211]

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[210] In such markets, competition may take the form of competing to produce the next innovation, rather than competing to sell an existing product.

[211] For example, pharmaceutical prices for the same drug can differ between the hospital sector and the primary care sector.

(c) Should price comparisons include or exclude sales taxes?

13.56 Within a broad product category, there will often be many different product offerings available (e.g. different brands of toothpaste, sold in different sizes of tube). Comparing prices for each specific product offering may not be very helpful, as in any one country some product offerings may be more expensive and others may be less expensive than in other countries. Hence, this approach could potentially leave the policy-maker with a large number of individual results but no clear conclusions about how prices compare overall for that product.

13.57 Hence, what is needed is some method of computing an overall comparison of prices for that product group. Typically, this might be done by choosing one country as the base for comparison and calculating comparative price indices for the other countries. In computing the index for each country, weights can be applied to the price of each specific product offering (e.g. on the basis of sales volumes in the base country).

13.58 However, a number of further methodological problems arise in calculating price indices:

(a) Data sample. When indices are calculated using a sample of product offerings (rather than the full population), the results of the comparison may be affected by the size of the sample and the criteria for selecting it. For example, comparisons based on the top 10 leading brands may differ from comparisons based on the top 50.

(b) Bilateral versus multilateral. Bilateral price indices involve comparing prices in the base country with one other country at a time, using price data on product offerings available in both of the countries. On the other hand, multilateral price indices involve comparing prices across all countries at once, using price data on product offerings which are available in all of the countries. Consequently, multilateral price indices use the same basket of products in calculating each country's index, but at the expense of potentially reducing the coverage of the basket.

(c) Matching criteria. When calculating price indices, should matching of product offerings between countries be on the basis of exact matches (e.g. 100g tubes of toothpaste by a particular manufacturer) or groups of product offerings (e.g. toothpaste by a particular manufacturer, in any size tube)? The former may reduce the size of the dataset which can be used (e.g. when a particular size tube is sold in one country but not another), whereas the latter requires some way of calculating a weighted price within the group (e.g. on the basis of pence per g of toothpaste by a particular manufacturer) so that prices can then be compared across countries.

(d) Volume weights. Each country will tend to appear cheaper when its own volumes are used as weights in calculating the comparative price indices.[212] On the demand side,

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[212] This is known as the Gerschenkron effect.

consumers will tend to consume higher volumes of lower-priced goods. On the supply side, high sales volumes may give suppliers greater scope for exploiting scale economies. In either case, the use of a country's own volumes as a basis for weighting will tend to place a higher weight on prices which are relatively lower in that country.

(e) Exchange rates. For EU Member States outside the eurozone, prices would need to be converted to a common currency in order for comparisons to be made. Clearly, price comparisons will be directly affected by the choice of what exchange rate to use. One option would be to use market exchange rates, either at one particular point in time or smoothed over a longer time period (e.g. averaged over a number of years). Alternatively, one could use exchange rates based on Purchasing Power Parity, or estimates of Equilibrium Exchange Rates.

13.59 It may thus not be possible to arrive at a consensus view on how prices compare overall between countries, even when researchers are using the same dataset.

13.60 Further, there may be practical difficulties and resource constraints associated with the collection of data from each Member State. We understand, however, that DG SANCO has commissioned a study on the price of branded products in 14 EU Member States, which would provide a source of data on comparative prices for those products and countries covered by the study.[213]

Conclusions

13.61 Our overall conclusion is that conceptual and methodological difficulties in carrying out international price comparisons make this approach unsuitable as a generic tool for measuring an existing level of consumer detriment. At a conceptual level, we suggest that price differences are a good indicator of consumer detriment only for products which are homogenous, tradable, cheap to transport, and not covered by intellectual property rights. At a methodological level, the results of international price comparisons are likely to be sensitive to the methodological approach adopted, given that comparative price indices can be constructed in a number of different ways.[214]

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[213] The study is mentioned in EC (2005), "Consumers in Europe, Facts and figures, Data 1999-2004".

[214] This is not to say that international price comparisons are not useful at all. Where the Commission has the data available and interprets the results with due caution, then there may be lessons to be learned by comparing prices within the EU for some types of product. However, due to the limitations associated with this methodology, we do not believe it is appropriate to recommend this approach for estimating existing consumer detriment more widely.

14 MEASURING PSYCHOLOGICAL DETRIMENT

14.1 We would like to acknowledge (with gratitude) that this section is very largely the work of Professor Lunt,.

14.2 The section focuses on the development of measures designed to provide estimates of psychological detriment in consumption. As discussed in section 13, we propose the use of a survey to estimate the existing level of personal detriment, so this section deals rather with measuring psychological detriment within a survey-based approach.

14.3 We:

(a) Discuss general issues of design and methodology;

(b) Discuss a range of established scales for measuring psychological impacts (e.g. survey methods and items).

Methodological Issues

14.4 A range of methodological issues are involved in the design of a survey to collect data which might inform estimation of consumer detriment.

Variable selection/content validity

14.5 There are many variables that either play a role in potential financial detriment or are consequential forms of detriment in their own right. The design problem here is one of content validity where the critical set of concepts needs to be identified, existing validated scales consulted, and new scales developed if necessary.

Multidimensional concepts

14.6 A related issue arises from the fact that each of the psychological variables identified would usually be treated as a multidimensional concept. For example, self-control sounds like a single concept but is usually treated as a complex one encompassing a number of other variables.

14.7 Another related issue is that much psychological research aims to give an account of universal psychological processes – yet there is an acknowledgement that psychological processes are "domain-specific", particularly where issues such as the content of belief are involved (as in attitudes). Indeed, consumer psychology is a separate area of study and there are many scales in consumer/marketing psychology which focus on specific basic psychological processes but operationalise the concepts in domain-specific items.

Multidimensionality and complexity of psychological detriment

14.8 The conceptual review of non-monetary detriment in section 7 suggests that a wide variety of psychological variables are potentially implicated in consumer detriment.

14.9   In addition, the literature demonstrates that the domain of psychological detriment and the characterisation of consumption contexts (products/sectors, point of sale, marketing practice) do not simply map on to each other.

14.10   The focus is thus very much on **interaction** between aspects of the individual psychology.

Measurement levels

14.11   Although there is no shortage of existing scales in consumer psychology, marketing and general psychology (in fact, there are a bewildering number of relevant scales which we review below), these are not established with the aim of estimating a particular outcome variable. Rather the focus is on construct validity and the aim is to capture the full range of phenomena that can be understood to fall within the concept.   Although "short forms" of scales are often developed these are usually still collections of indicators.   For example, progress in developing instruments to measure subjective well-being is measured in terms of the way it has moved from being assessed using a single scale to a multidimensional construct.

Multiple methods

14.12   The review of psychological detriment in consumption indicates that the whole range of research methods have been deployed to explore and explain consumer psychology. We have seen examples of experiments, quasi experiments, qualitative interviewing and focus groups.

Validity

14.13   The move in the study of vulnerability from identifying vulnerable groups to examining the conditions that can make consumers vulnerable reflects questions of how validity can be assessed for a possible detriment survey.

14.14   Donald Campbell drew an important distinction between sampling approaches to external validity and an alternative which he coined the "proximal similarity model."

14.15   Traditionally questions of validity are dealt with as sampling issues, which give some support to generalisation. In contrast, Campbell suggests a multidimensional comparison between the research context and the context to which one might want to generalize.

14.16   He proposed that the dimensions of comparison (between the research context and the real life context) were:

(a) People

(b) Times

(c) Places

(d) Settings

14.17   As a general conclusion regarding this approach to external validity we can say that experimental contexts are likely to demonstrate stronger effects than would be observed in real life contexts. There is a gradient of "eco-validity" (i.e. the extent to which an experiment reflects the real-world environment) in the relationship between particular experimental contexts and real life situations.

14.18   One way of approaching this estimation problem would be to use the theories and findings of social science research that is more orientated towards the context and towards broader social and cultural issues in order to modify estimates derived from experimental studies.

Measures

Marketing Scales

14.19   An area of study that can be used to obtain validated scales relevant to consumption is marketing or consumer psychology – to illustrate this we will document relevant scales from the *Handbook of Marketing Scales.*[215]

14.20   There is a wide-ranging collection of marketing scales that give detailed examples of scales based on psychological theory that have been developed for the study of specific areas of consumer beliefs and behaviour.

14.21   The range of potentially relevant and useful scales covers a number of topics, as shown in Table 14.1.

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[215]   Bearden, W., Netemeyer, R., and Mobley, M., (1999), *Handbook of Marketing Scales: Multi item measures for marketing and consumer behavior research. 2nd ed.* Newbury Park, CA: Sage Publication.

Table 14.1: Established Marketing Scales

Scale	Source
Impulsiveness	
Impulsiveness: Buying impulsiveness scale	Rook D; Fisher RJ (1995)
Impulsiveness: Impulse buying tendency	Weun S; Jones MA; Beatty SE (1997)
Impulsiveness consumer impulsiveness scale [CIS]	Puri R (1996)
Consumer literacy/expertise/social comparison	
Expertise: Consumer expertise	Kleiser SB; Mantel SP (1994)
Opinion Leadership and information seeking	Reynolds FD; Darden WR (1971)
Opinion leaders and opinion seekers [OL and OS]	Flynn LR; Goldsmith RE; Eastman JK (1996)
Attention to social comparison information [ATSCI]	Lennox RD; Wolfe RN (1984)
Interpersonal influence consumer susceptibility to interpersonal influence	Bearden WO; Netemeyer RG; Teel JE (1989)
Reference group influence consumer susceptibility to reference group influence	Park CW; Lessig VP (1977)
Values	
List of values [LOV]	Kahle LR (1983)
Multi item measures of values [MILOV]	Herche J (1994)
Rockeach value survey [RVS]	Rokeach M (1968, 1973)
Materialism measure	Richens ML (1987)
Materialism post materials scale	Inglehart R (1981)
Materialism scale	Belk RW (1984, 1985)
Materialistic attitudes [MMA]	Moschis GP; Churchill (1978)
Material values	Richins ML; Dawson S (1992)
Consumer involvement/motivation	
Consumer involvement profiles [CIP]	Laurent G; Kapferer JN (1985)
Purchase decision involvement [PDI]	Mittal B (1989)
Purchasing involvement [PI]	Slama ME; Taschian A (1985)
Appendix to involvement: Comparing four involvement scales	Mittal B (1995)
Emotions	
Emotion: Consumption emotions set [CES]	Richins ML (1997)
Emotions: Dimensions of emotions [PAD]	Mehrabian A; Russell J (1974)
Hedonic and utilitarian consumer attitudes	Batra O; Ahtola O (1991)
Hedonic and utilitarian consumer attitudes	Spangenberg ER; Voss KE; Crowley AE (1997)
Hedonic and utilitarian shopping values	Babin JB; Darden WR; Griffin M (1994)
Emotional profile - standardized emotional profile [SEP]	Holbrook MB; Batra R (1987)
Emotional quotient scale [EQ] and reaction profile	Wells WD (1964)
Cognitive styles	
Style of processing scale [SOP]	Childers TL; Houston MJ; Heckler S (1985)

Attitudes towards advertising/consumer society	
Feelings toward ads	Edell JA; Burke MC (1987)
Relevance, confusion, and entertainment	Lastovicka J (1983)
Public opinion toward advertising	Pollay RW; Mittal B (1993)
Skepticism toward advertising	Obermiller C; Spangenberg E (1998)
TV advertising believability scale	Beltramini RF (1982)
Consumer attitudes toward marketing and consumerism	Barksdale HC; Darden WR (1972)
Consumerism: Attitudes of consumer business people toward consumerism	Klein GD (1982)
Consumer satisfaction/sentiment	
Satisfaction with social services	Reid PN; Gundlach JH (1984)
Sentiment: The index of consumer sentiment toward marketing	Gaski JF; Etzel MJ (1986)
Alienation: Consumer alienation from the marketplace	Pruden HO; Shuptrine FK; Longman DS (1974)
Alienation: Consumer alienation from the marketplace	Allison N (1978)
Assertiveness, aggressiveness, and complaining behavior	Fornell C; Westbrook RA (1979)
Assertiveness and aggressiveness	Richins ML (1983)
Discontent: Consumer discontent scale	Lundstrom WJ; Lamont LM (1976)
Unethical behavior: Buyers' perceptions of unethical sales behavior	Lagace RR; Ingram TN; Boorom ML (1994)
Market orientation	Narver JC; Slater SF (1990)
Market orientation [MARKOR]	Kohli AK; Jaworski BJ; Kumar A (1993)
Market orientation: Summary scale	Deshpande R; Farley JU (1996)

14.22　The INRA/Deloitte methodology for measuring consumer satisfaction also includes a number of scales for assessing psychological variables. The core questionnaire consists of seven different "blocks" of questions, covering the following variables:

(a)　Overall satisfaction;

(b)　Evaluation of quality;

(c)　Evaluation of price;

(d)　Image perception;

(e)　Market and personal factors;

(f)　Consumer commitment;

(g)　Complaint behaviour.

14.23 A uniform 10-point scale is used throughout the questionnaire. This involves asking people to rate a statement with a number between 1 and 10, where the scores 1 and 10 have the following meaning, depending on the question or statement:

(a) 1 means "not satisfied at all" and 10 means "fully satisfied", or

(b) 1 means "totally disagree" and 10 means "totally agree", or

(c) 1 means "very unlikely" and 10 means "very likely".

Subjective well-being and happiness

14.24 Some of these issues of design and methodology become clear when we consider the case of subjective well-being.

14.25 In the conceptual review of the psychology of consumer detriment we examined some of the recent work linking subjective well-being with income and financial resources. In this sub-section we focus on measurement issues in subjective well-being (Diener, 2000).

14.26 Subjective well-being reflects individuals' broad judgements about their lives as a whole as reflected in their judgements about the different domains of their everyday life (marriage, work, family).

14.27 Early attempts to measure subjective well-being relied on single item self-report scales such as single item response scales. An example is:

❑ *How do you feel about your life as a whole?*

14.28 With a seven point response scale from *delighted* to *terrible* (Diener, 2000).

14.29 Single item scales have been replaced by treating subjective well-being as a multidimensional construct composed of the following dimensions (Diener, 2000):

(a) Life satisfaction;

(b) Satisfaction with key domains of life (e.g. work);

(c) Level of experience of positive/pleasant emotions/moods.

14.30 In addition to the development of content validity by the adoption of a variety of scales, this has been supplemented by the use of techniques such as **experience-sampling** in which people are prompted with a range of emotions associated with subjective well-being and measured periodically over time, thus complementing the use of single-shot measures in surveys.

Measuring context

14.31   Finally the development of a consumer detriment survey will need to take a position on the context of consumption and the point of sale.

14.32   It is clear from the review that vulnerability is not a stable aspect of character but an interaction between the marketing context, the structuring of the point of sale and the psychology of the consumer. Therefore a design decision is needed on how to represent these aspects of context. Should questions about vulnerability be related to particular examples of context (selling particular goods under particular conditions) and, if so, which contexts should be examined?

14.33   The psychology and marketing analysis in section 7 of the report and the analysis of behavioural biases in section 10 are particularly relevant when we are thinking about how the specific context in which consumer detriment is observed affects (or has affected) consumer behaviour.

New measures

14.34   The marketing scales above capture only some of the concepts identified in the review. Additional concepts may need to be identified, the literature (outside the marketing literature) then searched for relevant validated scales and these reduced appropriately to be included in the survey.

14.35   In addition, a number of new concepts, either without existing validated scales or none related to the context of consumption, emerge from the review. Thus new survey items may need to be developed.

15 PROPOSED SURVEY METHODOLOGY FOR MEASURING EXISTING CONSUMER DETRIMENT

15.1 In this section of the report, we discuss in some detail a survey methodology for measuring the existing level of (personal) consumer detriment.

15.2 The section begins by summarising some useful background material, covering:

(a) A review of a number of relevant precedents and existing surveys;

(b) Discussion of some general issues in survey design.

15.3 We then go on to discuss our proposed survey methodology in more detail. This discussion is structured into the following parts:

(a) The advice we received from Ipsos-MORI;

(b) The statistical problems caused the tendency to find a few cases of very large detriment in any sample of consumers, and how this could be addressed;

(c) A proposed approach for running the survey, and some cost estimates;

(d) The proposed content of the survey questionnaire.

15.4 The cognitive testing of the survey questionnaire forms part of the pilot testing element of the project, and hence is discussed separately in section 22.

Review of Precedents

15.5 There are a number of surveys which have been carried out in the past (or are still conducted on a regular basis) which provide useful insights into how best to measure consumer problems using a survey methodology. For example, these precedents provide indications as to which approaches work and which do not, or highlight potential difficulties which need to be addressed by our own survey methodology.

15.6 In this sub-section, we discuss the following precedents:

(a) A survey of consumer detriment carried out by the OFT in 1999;

(b) A questionnaire relating to consumer detriment sent by the OFT to complainants between November 14th 2005 and May 31st 2006;

(c) A survey of consumer satisfaction carried out by INRA-Ipsos for DG SANCO;

(d) A survey carried out in 2003 for the FTC on consumer fraud in the USA;

(e) A 2006 Eurobarometer report on EU consumer experience of cross-border shopping;

(f)   The surveys carried out more generally by Eurobarometer.

OFT survey of consumer detriment (1999)

15.7   The 1999 OFT survey of consumer detriment was perhaps the most directly relevant and helpful precedent for the purpose of our own work. We are very grateful to the OFT for further information which they provided in relation to this survey, which including sending us a copy of the survey questionnaire and further details on the survey results.

15.8   We described the OFT survey as part of our literature review (see section 3 and appendix 1), and hence we concentrate here on the questionnaire itself and the lessons which it provides for our own survey methodology.

15.9   This survey was carried out by Taylor Nelson Sofres (TNS) and involved a sample of 2,220 UK adults. The OFT's report arising from the survey was published as research paper no. 296 in February 2000.

15.10   The questionnaire consists of 45 questions, of which 31 relate to consumer experiences involving some kind of detriment, and 14 relate to demographic factors. The 31 questions relating to detriment may be divided by sub-headings as follows:

(a)   Have you had a problem with goods or services in the last 12 months?

(b)   What products or services gave rise to problems?

(c)   How many problems in each category of goods and services?

(d)   When did it/they start?

(e)   Who has to deal with the problem(s)?

(f)   Who is/was affected?

(g)   What type of problem was it? (e.g. safety, unreliability, late delivery)

(h)   How long did the problem take to be resolved (or how long has it been going on if unresolved)?

(i)   How much money was involved in the initial purchase?

(j)   What action did you take to deal with the problem?

(k)   How much time and money did you expend to resolve the problem (or how much so far)?

(l)   Actions taken by the supplier;

(m)   Interviewee's criticisms of the supplier;

(n) Compensation received or expected;

(o) Interviewee's propensity to complain.

15.11 The principal advantage of this survey is that its focus is exactly the same as ours – the measurement of consumer detriment. In contrast, many of the other survey precedents focus on different (albeit related) concepts such as consumer satisfaction and consumer fraud.

15.12 There is an apparent discrepancy between the definition of consumer detriment quoted in the OFT's 2000 report and what the survey actually measures. The definition quoted is that given by London Economics in 1997 (see appendix 1), which relates to the difference between actual outcomes consumers experience and the outcomes they would experience with optimal information. The survey, on the other hand, effectively measures personal detriment as we have defined it, albeit without any adjustment for the reasonableness of expectations.

15.13 The questionnaire is generally well suited for identifying the overall extent of consumer detriment, and comprehensive analysis of the incidence of consumer problems is possible by sector, product and service, as well as by type of problem and type of consumer.

15.14 We are aware that DG SANCO does not wish us to duplicate work done by the OFT. Hence, in cases where the questions used by the OFT seemed particularly well-suited for our purposes, we have (with the OFT's permission) made use of them in putting together our own survey questionnaire. We are grateful to the OFT for giving us permission to use their survey questions in this way

15.15 However, there were some areas where we judge that the OFT's questionnaire can be condensed. For example, it contains twelve questions (10a, 10b, 10d, 12, 14, 16, 20, 21, 22b, 26, 27 and 30) that ask the interviewee how much money was involved, starting with the price paid and covering such items as cost of time lost and how much compensation would be regarded as reasonable. Especially where these twelve questions were applied to two problems identified by the interviewee, it would not be surprising if interviewee fatigue or boredom set in, possibly compromising the reliability of the responses.

15.16 The most significant drawback of the survey would appear to be the substantial degree of uncertainty surrounding the estimated level of financial detriment. In particular, the OFT's central estimate of £8.3 billion per annum was subject to a 95 per cent confidence interval of ± £2.7 billion, or ±33 per cent. As a result, the OFT concluded that the survey could not be used to monitor changes in detriment through time without a prohibitively expensive increase in the size of the sample to reduce this confidence interval. In addition, the wide margins of error meant that the OFT was unable to break down estimated financial detriment between different types of goods and services (and hence a breakdown was given only in terms of the number of consumer problems).

15.17 This problem arose from the fact that, within the OFT's sample, there were a small number of consumers who had experienced very large financial detriment. Due to the magnitude of detriment involved, these cases were an important driver of the estimate of total detriment. At the same time, the fact that there were only a few such cases meant that estimates became statistically very uncertain.

15.18 This issue is an important one and is discussed in more detail later under the heading "The problem of a few cases of large detriment."

OFT questionnaire sent to complainants (2005/2006)[216]

15.19 More recently during late 2005 and early 2006, the OFT has gathered information on consumer detriment by sending out a questionnaire to consumers who complained. We are grateful to the OFT for providing us with information about this initiative and providing us with a copy of the questionnaire.

15.20 Obviously, given that the questionnaire is sent to consumers who have already complained, the results cannot be used to establish the prevalence of detriment. Further, it seems likely that responses to such a survey would be biased towards the more significant cases of detriment, since these are more likely to lead to complaints.

15.21 While the questionnaire uses almost the same number of questions as the 1999 survey, the questions are generally more concise and offer fewer possible responses.   The principal headings under which questions are asked are as follows (using the OFT's own words):

(a) Parts A and B (13 questions) are demographics;

(b) Part C (7 questions) asks about the goods or services which caused the problem *but does not seek to identify what the product or service was*;

(c) Part D (11 questions) asks about the research effort that consumers made before buying;

(d) Part E (2 questions) asks about consumers' awareness of their rights;

(e) Part F (11 questions) asks what consumers did in order to get the problem resolved;

(f) Part G (2 questions) asks about consumer confidence.

15.22 The questionnaire was designed to be posted and returned. This does of course imply some significant limitations on the validity of the conclusions that may be drawn from it. As is well known with postal surveys, response rates tend to be poor (often under 5 per

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[216] The survey was carried out between November 14 2005 and May 31 2006.

cent) and respondents may well not represent a true sample even of the population that has complained.

15.23   The number of questions on financial costs has been significant reduced compared to the OFT's 1999 survey: only two questions seek financial information in relation to a specific problem. On the other hand, the questionnaire devotes no fewer than four questions to ascertaining the pattern of payments (i.e. a once-off payment or repeated regular payments).

15.24   The questionnaire is thorough in seeking to establish what information-gathering consumers carried out before they purchased, and likewise thorough in asking what action consumers took or decided not to take once a problem had emerged. To that extent, the questionnaire would usefully support the analysis of certain behavioural aspects of consumer detriment.

Consumer satisfaction survey by INRA-Ipsos, for DG SANCO (2006)

15.25   We are grateful to DG SANCO for providing us with an advance draft of the survey on consumer satisfaction carried out by INRA-Ipsos.   This survey was based on the methodology developed by INRA and Deloitte in an earlier report which is covered in our literature review (see section 4 and appendix 1). We consider the INRA-Ipsos in some detail below.

Background to the survey

15.26   On 30 June 2006, INRA-Ipsos (referred to in brief as INRA) reported to DG SANCO on a survey that it had been commissioned to carry out concerning consumer satisfaction across all 25 EU Member States.

15.27   INRA was required to research consumer satisfaction across eleven trading sectors: electricity supply, gas supply, water distribution, fixed telephone services, mobile telephone services, urban transport, extra-urban transport, air transport, postal services, retail banking and insurance services. These sectors had been determined, along with the survey methodology, in a pre-survey study. They are categorised as "service sectors of general interest", but the final report provides no more explanation than that as to why these eleven sectors were chosen. We note that most of the sectors were once, and in some cases still are, state-owned and that not all have yet been liberalised. All the sectors are, or have most of the characteristics of, network industries. The survey thus covers sectors which account for quite a substantial proportion of economic activity in each Member State and are relevant to the lives of a very substantial proportion of each population.

15.28   The dates of INRA's field-work are not given, but INRA reports that it undertook over 29,000 interviews, all with adults (defined as age 18 or over) who had used one or more of the eleven services chosen and could respond with confidence for the household. INRA further reports that it achieved roughly 500 interviews per sector per country, and

that respondents typically covered 4 or 5 sectors in face-to-face interviews conducted at respondents' homes and lasting between 45 and 60 minutes.

15.29   INRA reports that the sample was essentially a quota-based sample. Each Member State was first stratified "according to region and level of urbanization". INRA goes on to say that "Among the cells obtained by crossing these two variables, [we produced a] selection of sampling points proportionally to the population in these cells. Households were [then] selected randomly among the selected sampling points."

The measurement of consumer satisfaction

15.30   For each sector, the interviewer put certain suggestions or statements to the interviewee and asked him/her to respond on a uniform 10-point scale, where 1 represented the most unfavourable judgment, 10 the most favourable, and 11 represented "don't know". Show cards were available to respondents to help them put a score on judgements between the two extremes.

15.31   Each sector was considered in light of three main components of consumer satisfaction, namely quality, image and pricing. The statements that interviewees were asked to place judgements on were tailored where necessary to the technicalities of each sector. Generally, the quality "block" of questions contained 14 elements plus a request for an overall judgement, the pricing "block" contained 7 components plus an overall judgement, and the image "block" contained 9 components plus an overall judgement.

15.32   In addition, for each sector questions were put relating to "market and personal factors", "commitment" and "negative experiences and complaints".

15.33   "Market and Personal Factors" covered consumers' perceptions about sector competition, ease of switching, accessibility, cross-border purchasing and national preferences. There were 5 questions (3 where no competition had been mandated) and possible responses were yes, no, and don't know.

15.34   "Commitment" was represented by a single question covering consumers' expectations as to whether they would switch supplier (where possible) within the next 12 months. Possible answers were no, yes, will cease using this service altogether, and don't know.

15.35   "Negative experiences and complaints" comprised 3 questions for each sector:

   (a)   How many problems did you have with this service in the past 12 months?

   (b)   Thinking about the most serious problem, did you communicate it to the supplier? (yes or no)

   (c)   How did the supplier respond? (provided a satisfactory solution, provided an unsatisfactory solution, or provided no solution)

15.36   Data gathered under the headings of quality, price, image and market/personal factors were treated as explanatory variables, and "commitment" and "negative experiences and variables were treated as consequent variables.

15.37   Interviewees were screened demographically by gender, age, number in household, number of children in household, lead contributor to household income, work status, age when interviewee ceased full time education, age when lead contributor (if different) ceased full time education, and post code.

Results of the survey

15.38   It is not our purpose to report the results in full, but to highlight those which appear most relevant to our own study.

15.39   Overall, i.e. taking the average for the EU25, levels of consumer satisfaction between the eleven sectors did not vary a great deal. The lowest value recorded (for urban transport) was 7.04, and the highest (for air transport) was 7.96. As INRA points out, scores at or close to 8 are "high", so one interpretation of the results is that they cast little light on areas where consumer detriment might be significant.

15.40   Another possibility is that the show cards advising interviewees how to score certain "intermediate" judgements might have encouraged too much clustering and that consumers' real levels of satisfaction or dissatisfaction were rather more widely dispersed than the range 7.04 to 7.96 suggests. The report does not reproduce the show cards, so we cannot comment further.

15.41   The report does show some variation in consumer satisfaction by Member State. Finnish consumers enjoy higher levels of consumer satisfaction across all 11 sectors than the EU25 average; and consumers in Austria, Germany, Ireland and Lithuania are above average in 10 out of the 11 sectors. Conversely, consumers in the Netherlands and Italy score worse than the EU25 average across all 11 sectors, and consumers in Spain similarly across 10 of the 11.

15.42   The report also concludes that people who are older, retired, blue collar, or "completed secondary school education" (a characteristic which varies in meaning across different Member States) show higher levels of consumer satisfaction than other groups. Conversely, the report states that "students and self-employed people count the lowest proportions of satisfied consumers."

15.43   The INRA report provides no analysis of the "negative experiences and complaints" responses, so it is not possible to draw precise comparisons with studies of consumer detriment (as distinct from satisfaction). Indeed, it is interesting to note that, whereas INRA finds that mobile telephone services gave rise to one of the highest levels of consumer satisfaction across the EU25, and that UK consumer satisfaction with fixed line telephony was above the EU25 average, the OFT found that telephone services generally yielded some of the highest levels of detriment among UK consumers. It may well be that UK suppliers substantially improved their performance between the dates of the two

surveys,[217] but the discrepancy also serves as a reminder that measuring detriment and measuring satisfaction may well produce apparently inconsistent results.

Relevance of the INRA report to the consumer detriment project

15.44   We have considered the INRA survey and report from four principal points of view:

   (a)   What can and cannot be deduced about consumer detriment *directly* from the INRA satisfaction survey;

   (b)   Whether any modifications could be made to the satisfaction survey which would in future allow more to be deduced about consumer detriment;

   (c)   What lessons can be learned from the INRA survey for the consumer detriment project, e.g. as regards methodology, phrasing of questions, choice of responses etc; and

   (d)   Whether DG SANCO needs two survey instruments to meet the objectives of both studies (i.e. detriment as well as satisfaction), or whether both sets of objectives could be met with one survey.

15.45   We now turn to each of these issues in turn.

What can be deduced about consumer detriment directly from the INRA survey?

15.46   The INRA approach does not distinguish between our concepts of "personal detriment" and "structural detriment" – and it would be unreasonable to expect that it should have done so.   However, since it focuses on the attitudes and experiences of individual consumers, it appears to link more closely with our concept of personal detriment.

15.47   In other sections of this report we have argued that consumer detriment is a complex, multi-faceted phenomenon, embracing economic, financial, behavioural and psychological factors.   The INRA survey does not set out to deal with all four of these but instead concentrates on a small subset of psychological factors, together with some treatment of behavioural responses (e.g. the actions taken or not taken in response to dissatisfaction).   At a high level, the INRA approach is not sufficiently complete or sophisticated to measure detriment in the ways that we have suggested are important.

15.48   To give one example: we have argued that personal detriment should be defined against a counterfactual of "reasonable expectations".   However, INRA measures satisfaction as "the consumer's assessment of a product or service in terms of the extent to which that product or service has met his/her needs or expectations".   Hence, the counterfactual

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[217]   The two surveys were conducted over six years apart.

implicitly used by INRA is actual expectations, without any consideration of the reasonableness or otherwise of each consumer's expectations is not considered.

15.49 In section 5 of this report, we suggest that when conducting surveys, it may sometimes be acceptable to use actual expectations as a proxy for reasonable expectations. This is because, within a large sample of consumers, there are likely to be some people with unreasonably high expectations and others with unreasonably low expectations, and these effects are likely to balance out.

15.50 However, we explained that this approach was less suitable when undertaking cross-sectional analysis, because of the possibility that there might be systematic differences in expectations between different groups of consumers. Hence, when the INRA report concludes that older, retired and blue-collar people tend to exhibit higher levels of satisfaction, that could simply be because their expectations are lower or that they are less confident about complaining. It does not by itself entitle authorities to reach any particular conclusion about the extent of detriment experienced by this group of consumers.

15.51 By the same token, it also becomes evident from the INRA report that consumer satisfaction, as defined and measured by the survey, is not simply the inverse of consumer detriment. Nor can consumer dissatisfaction be taken as synonymous with consumer detriment. There is, intuitively at least, a relationship between them – detriment gives rise to dissatisfaction – but they are not the same thing.

15.52 The INRA approach also requires that specific sectors be nominated for research. We have no criticism of the sectors that were chosen for this first study: they are large in scale and affect millions of households. Nonetheless, it is inherently difficult, prior to the collection of data, to know which sectors are the most pertinent ones to include. As it turns out, the sectors chosen for the first INRA study have produced *prima facie* evidence of a relatively high, and relatively undifferentiated, level of consumer satisfaction. However, the task of this project, and of continuing research that might be commissioned once the project is finished, is almost diametrically opposite: to identify sectors where consumer detriment appears to be serious or widespread, to measure it, to identify causes and give pointers to possible policy remedies.

15.53 Our overall judgement is that the INRA survey approach could be a useful check on the efficacy of policies enacted to deal with consumer detriment. Thus, if certain types of detriment were identified and regulations enacted to deal with them, the INRA survey or something substantially similar could provide a useful *ex post* check on whether consumers felt more satisfied as a result. Consequently, we have included a reference to this effect in our draft handbook. However, in our view the INRA approach is not a suitable tool for identifying sectors where consumer detriment might arise, nor for measuring the extent of detriment in either absolute or relative terms (relative here meaning as between sectors or as between Member States).

Whether any modifications could be made to the satisfaction survey to make it suitable for measuring consumer detriment

15.54   In light of the above discussion, we do not think that the objectives of the INRA survey are sufficiently close to those of a survey aimed at measuring consumer detriment to make adaptation of the INRA survey feasible. It may well be desirable to amend the consumer satisfaction survey to bring about the small number of improvements we have touched upon, but we see no point in any larger scale changes. For example, it may be possible to add in some control questions (as proposed in section 5) to allow adjustments to be made for the reasonableness of expectations. However, the advance selection of a small number of sectors for analysis appears to be intrinsic to INRA's approach (since many of the questions only make sense when applied to a named sector), and hence there would appear to be no way of adapting the approach to overcome this limitation.

15.55   Looking at the bigger picture, we suggest the real question for DG SANCO to address is whether it wants to measure consumer satisfaction *or* consumer detriment *or* both at the same time. However, this is a policy issue which goes some way beyond our terms of reference, so we make no further comment on it here.

What lessons can be learned for the current project from the INRA survey?

15.56   As we have argued above, the results produced by the INRA survey reinforce, in our view, the importance of a reliable counterfactual against which to measure detriment (or indeed satisfaction or dissatisfaction).

15.57   Another possible lesson, we suggest, is that, where "graded responses" form an important part of a survey, the gradations themselves should be worded to encourage significant differences in responses. It is hard to judge whether the INRA survey could have been better designed in this respect, since the show cards are not reproduced in the report.

15.58   Finally, we suggest that the issues we have identified with the INRA survey reinforce the importance (which we acknowledge DG SANCO has accepted) of cognitive testing as a prelude to surveying consumer attitudes generally. This is especially true where a survey runs across a wide spectrum of social demographic characteristics, across 25 EU Member States, and across multiple trading sectors. We do recognise that INRA and its partner Deloitte went through a pilot phase before conducting the main survey, but the report on the pilot phase makes clear that no cognitive testing was undertaken. In other words, consumers' perceptions of such concepts as "safe service" (Quality question 2), "affordability" (Price, question 4), "enough competition" (Market and Personal factors, question 1), and "unique image" (Image, question 3) were not tested.

Whether DG SANCO needs two survey instruments to meet the objectives of both types of study (i.e. detriment as well as satisfaction)

15.59   Our conclusion is that one survey will not suffice for measuring both satisfaction and detriment, except possibly at a very high level of generalisation. In a combined survey which attempts sufficient detail to be useful for policy-making, either objective would be

compromised by the other. We recognise that this may be an unpalatable finding for DG SANCO from a budgetary point of view.

The FTC's report on consumer fraud (2004)

The survey

15.60   In August 2004, the US Federal Trade Commission (FTC) published a staff report entitled *Consumer Fraud in the USA: An FTC survey.*[218] The survey was based on a random sample of 2,500 US adults (defined as 18 years of age or over) who were approached for a telephone interview by Public Opinion Strategies on behalf of the FTC. The survey itself was conducted in May and June 2003. The analysis and reporting were conducted by FTC staff. It is described as "the first systematic look in the last decade at the problem of consumer fraud" (p.115).

15.61   The purposes of the survey are described by the FTC as "in part, to assist the agency in determining whether information in the FTC's Consumer Sentinel database of fraud complaints is representative of consumers' actual experiences", "[to] target law enforcement actions", and to "target education campaigns more precisely towards particular consumer groups who are at risk…" (p. ES-1).

15.62   The survey questionnaire runs to 86 questions, including demographics. It focuses on twelve specific types of fraud: ten identified as the most prevalent on the FTC's complaint database, together with two others of a more general nature determined by the FTC itself. The list of frauds is detailed in the footnote on this page.[219] In addition the survey covered "slamming", a technique whereby consumers of telephone services find their long-distance carrier switched without their consent.

15.63   The survey found that some 25 million American adults, 11.2 per cent of the adult population, had been the victims of one or more of the types of fraud under investigation during the preceding twelve months. More than 35 million instances of these frauds were estimated to have occurred. In addition, 13.9 million consumers had been victims of some 17.6 million instances of "slamming",

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[218]   http://www.ftc.gov/reports/consumerfraud/040805confraudrpt.pdf

[219]   The ten specific types of fraud were (1) paying an advance fee to obtain a loan or credit card that a consumer was promised or guaranteed to receive, (2) being billed for a buyers' club membership a consumer did not agree to purchase, (3) purchasing credit card insurance, (4) purchasing credit repair services, (5) paying money or making a purchase to receive a promised prize and then not receiving the prize or receiving a prize that was not as promised, (6) being billed for Internet services a consumer did not agree to purchase, (7) purchasing a membership in a pyramid scheme, (8) being billed for information services provided either over the Internet or by pay-per-call telephone service that a consumer had not agreed to purchase, (9) making a payment to someone who represented that as a result of making the payment a consumer would receive a government job, and (10) purchasing a business opportunity where the seller made earnings claims that were not realised or promised assistance that was not provided. The two more general situations were (1) paying for a product or service that a consumer does not receive and (2) being billed for a product, other than the specific products identified above, that a consumer had not agreed to purchase (p. ES-1).

The findings

15.64   It is not the purpose of this report to summarise that of the FTC.   However, it may be of interest to note that:

(a)   The most common form of fraud was the "Advance Loan Fee" scam, in which a consumer pays money to a seller for the promise of a guaranteed loan or credit card. Some 2.1 per cent of adults (4.5 million consumers) had fallen victim to this form of fraud.

(b)   Some 33 per cent of victims learned of offers which proved fraudulent by reading printed material. Telemarketing accounted for just under 17 per cent, and the internet (including e-mail and websites) for 14 per cent.

(c)   American Indians and Alaska Natives were the most vulnerable to fraud, with almost 34 per cent of these respondents having been victims. The figures were 17 per cent for African-Americans, 14 per cent for Hispanics and 6 per cent for non-Hispanic whites.

(d)   Interestingly, those who were anticipating a large change in their income within the next three years – either up or down – were between two and three times more likely to be victims than those who expected their incomes to remain stable.

(e)   Also interestingly, older consumers were *not* found to be more vulnerable. Indeed, the 65 and over category were the least likely to be victims, and vulnerability appears to taper off with age after the 25-34 category.

(f)   Finally, those with "more debt than they feel they can handle" are most likely to be fraud victims, at 19 per cent of respondents, compared with under 3 per cent of those who have no personal debt.

15.65   Just over 29 per cent of victims did not make any form of complaint. Of those that did, almost 54 per cent complained to the supplier, 19 per cent to a bank or credit card company, and 8 per cent to an "official" source such as a local, state or federal agency.

15.66   Women and younger consumers are more likely to complain, by between 10 and 20 percentage points, than men or older consumers.

15.67   The authors identified a number of areas in which future surveys of a similar type could be improved.   These seem to us highly relevant to our own proposals to DG SANCO.

15.68   One is that the FTC found it very hard to estimate the total amount of money lost by consumers as a result of fraud. Part of the problem was that a very small number of consumers reported a very high proportion of losses, and the survey contained no mechanism for checking on outlier responses. (This is the same problem that the OFT experienced in its 1999 survey, and it is discussed in more detail later under the heading "The problem of a few cases of large detriment".) A second problem was that some

consumers reported greater losses than the sums they had paid, and, again there was no means of probing the veracity of such responses.

15.69 Payment methods also complicate the estimation of losses, since credit card companies, in certain circumstances, will reimburse consumers for fraudulent transactions: in these cases there has been fraud but no loss, at least not to a specific consumer.

15.70 The method by which consumers hear about offers which prove fraudulent can also be complex, since not all respondents were thought to have distinguished correctly between "e-mail", "internet sites" and "internet auction sites".

15.71 Finally, the authors also emphasise that it is important to ask specific questions about different types of fraud, not general questions. This, they say, points towards doing closer studies of different subsets of fraud.

Relevance to this report

15.72 The FTC report is in our view an excellent piece of work, very well conceived and executed for the purposes it was designed for. It is difficult to see, however, that it could usefully be replicated, or adapted to the recommendations we make in relation to surveys of consumer detriment.

15.73 Fraud itself is just one subset of consumer detriment, and it could be argued that DG SANCO and national regulators need to establish the overall picture of detriment before homing in on a detailed study of fraud.

15.74 The 12/13 issues that the FTC surveyed also say something about the state of development in the US economy: some of the frauds practised on American citizens ("slamming", for example) would not be technically replicable in most EU Member States, and others may well not yet have become established on any substantial scale.

15.75 What the FTC survey does show is that gaining an accurate and well-documented grasp of consumer detriment at a necessary level of detail involves considerable work and expense. We do not know exactly what the FTC survey cost, but it seems likely that a telephone survey of 2,500 people using an 86-question template would have cost a considerable sum of money. In many ways the task facing DG SANCO is orders of magnitude greater than that facing the FTC because of the diversity of national economies in the EU25, the diversity of consumer experience, and the relatively primitive state of analysis of consumer detriment within most Member States.

Eurobarometer: EU consumer experience of cross-border shopping (2006)

15.76 In September 2006, DG SANCO, under the *Consumer Protection in the Internal Market* programme, published a report concerning the experiences of EU25 consumers in relation to cross-border shopping.[220] The report was based on a large-scale survey for which the fieldwork was carried out during February and March of that year.

15.77 The study covered four main aspects: levels of cross-border shopping, factual aspects (e.g. advertisements and complaints), consumer confidence, and indicators of consumer protection. The survey also focused a number of questions on three specific services: timeshare, package holidays and financial services (the last-mentioned at some length).

15.78 The study was conducted by TNS Opinion & Social, a consortium created between Taylor Nelson Sofres and EOS Gallup Europe, at the request of the Directorate-General Press and Communication.

15.79 Consumers interviewed had to be resident in one of the EU25 Member States and aged 15 years and over. The basic sample achieved in each Member State was a multi-stage, random (probability) sample.

15.80 A total of 24,750 consumers were interviewed, i.e. an average of just under 1,000 per member State. In most States, a nominal 1,000 consumers were interviewed, with fewer in Cyprus, Luxembourg and Malta (500 each), and more in the UK (1,300) and in Germany (1,500). A total of 32 questions were put to interviewees.

15.81 In our view the presentation of the survey and the report based on it are of a high standard. The document states clearly what the survey methodology was, lists the questions and available responses in detail, and provides readable tabulations of the responses, each broken down by Member State, and in the case of Germany sub-divided by East and West.

15.82 The one notable element missing from the survey is demographic detail. It is not clear to us whether demographics were of no interest and not therefore recorded, or whether they were recorded but not analysed. As the report stands, we do not know how responses vary by gender, age, occupation, and so on.

15.83 Although it is a high quality piece of work, and represents interesting background to the current project on consumer detriment, the cross-border shopping report does not bear decisively on the definition or measurement of detriment. For example, the report contains no references (in 197 pages) to the word "detriment" itself or to any of the words most frequently used in relation to detriment: "harm", "damage", "loss", "welfare", "surplus", "worry", "stress", "anxiety" or "vulnerable".

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[220]   The report can be found at http://ec.europa.eu/public_opinion/archives/ebs/ebs252_en.pdf

15.84 "Satisfaction/dissatisfaction" is likewise only rarely mentioned. "Complaint" figures much more prominently (45 references) but this is because three of the 32 questions refer explicitly to complaints. The questions ask whether the respondent had complained (not how many times or on what product or service), what results were obtained, and what the respondent did if the outcome was unsatisfactory.   This is useful hard evidence of what consumers actually did.   However, the report does not attempt to quantify consumer losses where some kind of problem arose, or the psychological reaction of the consumer.

The Eurobarometer survey series[221]

15.85 The standard Eurobarometer survey was established in 1973 and is intended to monitor social and political attitudes in the European Union. Standard surveys are conducted between two and five times per year, with reports published twice yearly. Each survey consists of approximately 1,000 face-to-face interviews per Member State, except for Germany (2,000), Luxembourg (600) and the UK (1,300, including 300 in Northern Ireland).

15.86 In addition to the Standard Eurobarometer, there are a number of related surveys. These are listed in Table 15.1.

Table 15.1: Eurobarometer Surveys

Survey	Description
Special Eurobarometer	These reports are based on in-depth thematic studies and are integrated into Standard Eurobarometer's polling waves.
Candidate Countries Eurobarometer	This survey was first carried out in October 2001 in the 13 countries applying for membership. The methodology applied is almost identical to the Standard Eurobarometer. The last published reports in this series relate to spring 2004.
Flash Eurobarometer	These are *ad hoc* thematic telephone interviews that are conducted at the request of any service of the European Commission or other EU institutions. The Flash Eurobarometer surveys enable the Commission to focus on specific target groups.
Qualitative Studies	These studies investigate in-depth the motivations, feelings and reactions of selected social groups towards a given subject or concept. These studies are conducted through discussion groups or with non-directive interviews.

Eurobarometer Standard 65: Methodology

15.87 The Standard Eurobarometer 65 was published in July 2006. The survey covered residents aged 15 years and over in each of the Member States. Bulgaria, Romania, Croatia and Turkey were also included.

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[221] Public Opinion analysis sector of the European Commission, http://ec.europa.eu/public_opinion/index_en.htm

15.88   In each country a number of sampling points were chosen. These sampling points were drawn systematically from each of the "administrative regional units" after stratification by individual unit and type of area. Sampling points aim to represent the whole territory of the country being surveyed according to the EUROSTAT NUTS II (or equivalent) and according to the distribution of the resident population between metropolitan, urban and rural areas. In each of the selected sampling points, a starting address is chosen at random. Further addresses, such as every n^{th} address, were selected with reference to the initial address.   Within each household, the particular respondent was drawn randomly using the "closest birthday rule". All interviews were conducted face-to-face in people's homes and in the appropriate national language.

Survey content

15.89   Trend questions are asked several times a year and measure the evolution of European public opinion. The Eurobarometer Interactive Search System provides an overview of these questions. The topics listed in the search system are contained in Table 15.2.

Table 15.2: Topics covered by the Trend Questions

1. Life satisfaction
2. Satisfaction with national and EU democracy
3. Unification
4. Membership of the EU
5. Benefits through membership of the EU
6. Eurodynamometer current speed
7. Eurodynamometer desired speed
8. Interested in European affairs
9. Importance of the EC for the future
10. Importance of the role played by the EU in five years time
11. Meaning of the EU
12. If EU scrapped
13. Scale relying on (eg. European Commission, the national government)
14. Awareness of the EU institutions
15. Evolution of the importance played by the EU institutions
16. Trust in EU institutions
17. Policies national or EU level
18. EU actions in certain areas of key priority
19. Main actions undertaken by the EU
20. Fears regarding the building of the EU
21. EP awareness
22. EP impression
23. Perceived importance of EP role
24. Wanted importance of EP
25. Does EP protect EU citizens interests
26. Policy areas for the EP
27. Formation of a European Government responsible to the European Parliament: for or against
28. Awareness of European institutions and issues
29. European Commission impression
30. Single European market awareness
31. Single European market: hope or fear
32. Single European market: good
33. Informed about the single European currency
34. One European currency: for or against
35. Agreement with statements about consequences of the euro
36. Statements about EU enlargement: agree vs disagree
37. In favour of new EU members
38. Importance of criteria in deciding whether a country should join the EU
39. Feel European
40. European nationality

41. Expectations for the year to come

42. Opinion on key topical issues

43. Fears regarding the building of the EU

15.90   In addition to the standard surveys, a number of special surveys have been conducted. The topics covered by these surveys in 2005 and 2006 are listed in Table 15.3.

Table 15.3: Eurobarometer Special Survey Topics – conducted in 2005 and 2006

Mobile roaming

European employment and social policy

The European Union and its neighbours

Avian influenza

Attitudes towards EU enlargement

Consumer protection in the Internal Market (*see earlier discussion*)

The future of Europe

E-communications household survey

Attitudes towards energy

Health and food

Organised crime and corruption

Europeans and biotechnology in 2005: patterns and trends

Europeans and their languages

Europeans and the Common Agricultural Policy

Medical errors

AIDS prevention

Attitudes of Europeans towards tabacco

Risk issues

Europeans and languages

Attitudes of consumers towards the welfare of farmed animals

Passengers' rights

Radioactive waste

Price and quality of services of general interest

Social values, science and technology

Europeans, science and technology

Source: European Commission

15.91   Topics covered by the qualitative studies are listed in Table 15.4.

Table 15.4: Qualitative Studies

The future of Europe
Consumers' attitudes towards labelling
Attitudes and expectations of viewers in terms of television programmes with a European content
Cross-border shopping in 28 european countries
European consumers and services of general interest
Peoples' attitudes to services of general economic interest
Integrating gender mainstreaming into employment policies
EU citizens' perception of the euro in the months following the changeover
Preparation of citizens for the changeover to the euro
Perceptions of the European Union

Source: European Commission

15.92 The relevant question is whether any of these types of survey could be used by the Commission to measure the existing level of consumer detriment, rather than DG SANCO commissioning a separate, *ad hoc* survey. Our current views are as follows:

(a) The subject of consumer detriment is too broad to be covered by the insertion of additional questions into the Standard Eurobarometer series;

(b) A qualitative study would also not be suitable in this instance, assuming that the Commission's objective is to obtain a *quantitative measurement* of consumer detriment;

(c) As discussed later in this section, telephone interviews are not ideal for exploring the subject of consumer detriment, and hence this would argue against using a Flash Eurobarometer survey;

(d) However, it is possible that the consumer detriment could be measured using a Special Eurobarometer survey. Here, the Commission should consider whether using a Special Eurobarometer survey would:

– Yield any advantages over commissioning a separate survey (e.g. cost savings);

– Impose any unwelcome restrictions (e.g. on the length of questionnaire, or on the ability of the Commission to implement the rolling approach to surveying Member States which we discuss later).

General Issues in Survey Design

15.93 In this sub-section, we discuss various issues that arise in questionnaire design, and explain some of the types of questions that can be used in surveys. The importance of survey design was highlighted in our original proposal, where we said:

"Precision in aim and execution is likewise a high priority. It is, for example, vital to agree what a survey does and does not aim to cover. The temptation may arise to cover too broad a spectrum of issues, and, within the time confines of the interview, to cover them in insufficient depth to permit statistical analysis. A worse temptation is to phrase the questions loosely, in the hope that a broad spread of responses might emerge. In reality what usually emerges from loose questions are loose answers, unsuitable for analysis.

Issues in questionnaire design

15.94   There are a number of general design issues that need to be considered. They include:

(a) The wording of questions needs to be as accurate as possible so that questions are unambiguous, address the required issues, and do not influence respondents' answers.

(b) The order in which answer choices are presented can affect the answers given. People tend to pick the choices nearest the start of a list when they read the list themselves, and tend to pick the most recent answer when they hear a list of choices read to them.

(c) Question order can affect responses. Mentioning something (an idea, an issue, a brand) in one question can make people think of it when answering a later question, when they might not otherwise have thought of it. In some cases it might be possible to reduce this problem by randomizing the order of related questions.   This consideration applies also to offering multiple answer choices.

(d) Question order can also affect responses because of "habituation". The habituation problem applies when a series of questions all have the same answer choices. Some people may start to give the same answer, without really considering it, after being asked a series of similar questions.

(e) Answers to multiple choice questions need to allow for the whole spectrum of responses, including "don't know" and "none of these" or "other" if appropriate. Even dichotomous questions, such as "Do you have a UK passport?" may need a "don't know" choice in the reply.

15.95   In addition to general design issues there are issues specific to a survey measuring consumer detriment in different Member States. These include:

(a) The wording of the questionnaire needs to be such that it can be translated into different languages to allow the questionnaire to be used in all 25 Member States. Precise linguistic equivalence is required.

(b) If possible, questionnaires need to allow for cross-country biases in consumer experience and expectations.

Types of Survey Question

15.96   There are several different types of survey question. Some of the more common types are as follows:

Dichotomous questions

15.97   Dichotomous questions have two possible answers and are generally of the "yes/no" or true/false type. An example is:

❑   In the last six months, have you complained to any company about a product which you purchased from them?

Rank Order Scaling

15.98   Rank order scaling questions allow a set of options to be ranked based upon a specific attribute or characteristic. Ties may or may not be allowed. An example is:

❑   Based upon what you have seen, heard, and experienced, please rank the following brands according to their reliability. Place a "1" next to the brand that is most reliable, a "2" next to the next most reliable, and so on. No two brands should have the same ranking.

- Brand A

- Brand B

- Brand C

- Brand D

Multiple choice questions

15.99   A multiple-choice question gives respondents a choice of three or more options. Multiple choice questions can ask for single or multiple answers. For this type of question it is important to consider including an "other" category in case there are other answers that the question setter has overlooked. An example is:

❑   Over the past 12 months, which two of the following forms of public transport have caused you most overall dissatisfaction?

- Trains

- Air

- Bus

- Taxi

- Other

Rating scale

15.100 A rating scale requires a respondent to rate a product or service along a well-defined, evenly spaced continuum. Rating scales are often used to measure the direction and intensity of attitudes. The following is an example of a comparative rating scale question:

❑ Which of the following categories best describes your last experience of purchasing a good or service online? Would you say that your experience was:

- Very pleasant

- Fairly pleasant

- Neither pleasant nor unpleasant

- Fairly unpleasant

- Very unpleasant

15.101 Rating scales can also be numerical. An example is:

❑ On a scale of 1-10, with 1 being "very dissatisfied" and 10 being "very satisfied", how would you rate your overall level of satisfaction?

Constant sum questions

15.102 Constant sum questions enable the collection of "ratio" data, where the data express the relative value or importance of options, e.g. option A is twice as important as B. An example is:

❑ This question asks you to divide a total of 100 points between different outcomes to a complaint, to show how much you value each one. Distribute the 100 points, giving the complaint outcome you value most the greatest number of points.

- I got an apology

- I got the product mended/ replaced

- I got a refund

- I got a satisfactory explanation

- Other

Open-ended questions

15.103 The open-ended question seeks to explore the qualitative, in-depth aspects of a particular topic or issue. It gives participants the opportunity to respond in detail. Although open-ended questions can be useful, they are time-consuming to answer and responses are difficult to analyse. An example of an open-ended question might be: When have your expectations as a consumer not been met?

15.104 Open ended questions can be used at the end of multiple choice questions, for example "what other…"

Request for values

15.105 Questions can ask respondents for numerical values. An example is:

- ❑ How much money did you spend resolving the problem?

Demographic questions

15.106 Demographic questions help paint a picture of the group of persons surveyed. They can be used to identify characteristics such as age, gender, income and place of residence. In general, surveys that are aimed at a mass audience include pre-defined demographic questions.

The Advice of Ipsos-MORI

15.107 Europe Economics is not itself an organisation that conducts surveys. We have substantial experience in designing or co-designing surveys, and in analysing or co-analysing them, but in every instance we engage the services of an expert survey firm to conduct the survey and to advise on survey methods. Surveying itself is a highly specialised activity.

15.108 In this project, we have consulted Ipsos-MORI, formerly known as Market Opinion and Research International. Europe Economics itself and members of Europe Economics staff in previous employments have worked extensively with Ipsos-MORI.[222] The firm is among the most prominent and experienced survey firms in the UK, and its international reach was recently extended by a merger with Ipsos, the merged entity now known as Ipsos-MORI. More information about Ipsos-MORI can be found at its website, http//:www.Ipsos-MORI.com.

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[222] We have worked with IPSOS-MORI in subjects as diverse as Formula 1 motor racing, fixed odds betting terminals and new car warranties.

15.109 Following a meeting and subsequent correspondence, Ipsos-MORI now has a good understanding of the notion of consumer detriment and of the importance – as well as the difficulty – of measuring it.

15.110 In the rest of this sub-section we discuss several important aspects of the advice which we have received from Ipsos-MORI, under the following headings:

(a) Cognitive testing;

(b) Quantitative surveying, with issues including:

  – Pilot quantitative testing;

  – Omnibus versus *ad hoc* surveys;

  – Survey format (i.e. should it be face-to-face, by telephone, or by internet?)

(c) Cost estimates (if implemented on an EU-wide basis by the Commission).

Cognitive testing

15.111 Perhaps the key component of Ipsos-MORI's advice is that it would be unwise for us, in this project, to plunge directly into trying to measure consumer detriment quantitatively, even on a pilot scale. Ipsos-MORI's view, essentially, is that the concept of consumer detriment could be so varied, and for some consumers so nebulous, that it would be essential to establish a basis of understanding for a consumer questionnaire before trialling it with a sample of consumers.

15.112 Ipsos-MORI's suggested approach for this preparation effort is "cognitive testing", and to illustrate what is meant by it and the importance that Ipsos-MORI attach to it, we quote from their letter to us of May 15th 2006:

> "We strongly advocate the use of cognitive testing in research projects like this, where being sure of how key terms and concepts are being interpreted by respondents is of such key importance. However, we should emphasise that this is only the first stage of the pre-survey development work, and we would recommend that a more formal quantitative pilot is also conducted in each country where it is proposed to carry out the survey.
>
> "Cognitive testing is a method of qualitative research designed to ensure that we are asking the right questions and that they can easily be understood. In short, the proposed cognitive phase will set out to achieve three objectives:
>
> > To ensure that the questions included in the questionnaire are appropriately worded
> >
> > To gain a better understanding of how respondents interpret the questions we ask
> >
> > To identify any gaps in terms of key topics or questions that respondents felt we should have been asking

"The cognitive testing will [also] highlight any problems that respondents encounter when they attempt to answer our questions and will indicate whether respondents are able and willing to provide appropriate answers. Often, the very process of understanding the respondent's thought processes will point to a number of workable solutions to any problems identified.

"Cognitive testing is undertaken by carrying out depth interviews with a number of eligible respondents – in this case, members of the public who have experienced consumer detriment in the recent past. An approach we often use is to split the interviews into two phases, the first to inform questionnaire development, in which key concepts and broad question areas are tested, and the second following the development of the questionnaire, in which the specific questions we intend to ask are tested…However, in this instance we do not believe that this two-phase approach will be necessary… we feel quite confident at this stage that we are already in a position to develop an appropriate survey instrument ready for refining through cognitive testing without an initial, more exploratory qualitative phase.

"Cognitive interviewing is a diagnostic technique which looks at the cognitive processes employed by people when they answer survey questions. These include comprehension, recognition, recall and decision-making. Generally, we employ a flexible mix of "think-aloud" and probing techniques, which can be adapted to suit the audience at hand. Our aim is to find out as precisely as possible what is going through the respondent's mind as they decide how to respond to a particular question.

"We would [therefore] recommend approximately 18 depth interviews in each country, lasting an average of an hour each. The sample is not of course designed to be statistically representative, but 18 interviews would be a sufficient number to ensure that a range of potential respondents is included in terms of demographic factors that might affect how the survey is answered. Relevant factors in this case include age, gender, social class, level of education and, depending on the country, possibly ethnicity. Quotas are set at the recruitment stage to ensure that the questionnaire is thoroughly tested across as wide a range of respondents as possible. In each country, we propose to select six locations and carry out three interviews in each. Clustering the interviews in this way produces some economies by reducing interviewers' travel time between interviews. Locations would be chosen to provide geographical spread and diversity. For example, both urban and rural locations would be included."

15.113 For budgetary reasons, Ipsos-MORI's suggested figure of 18 interviews was subsequently reduced to 12. Our view is nevertheless that Ipsos-MORI's proposal is the right *theoretical* approach, because it would ensure that the results of the survey were robust.

Quantitative surveying

15.114 Although Ipsos-MORI informed us that cognitive testing could in itself produce some useful insights into consumer detriment, its primary purpose is simply to prepare the ground for quantitative surveying by fine-tuning the design and wording of the survey questionnaire.

15.115 We also discussed with Ipsos-MORI various issues relating to a quantitative survey of consumer detriment. Below we discuss the advice we received on:

(a)   Pilot quantitative testing;

(b)   Omnibus versus *ad hoc* surveys;

(c)   Survey format (i.e. should it be face-to-face, by telephone, or by internet?)

Pilot quantitative testing

15.116 Ipsos-MORI suggest that the main quantitative survey should be preceded by a smaller scale pilot survey. They wrote:

> "we should emphasise that [cognitive testing] is only the first stage of the pre-survey development work, and we would recommend that a more formal quantitative pilot is also conducted in each country where it is proposed to carry out the survey."

15.117 Ipsos-MORI subsequently gave more detail on the methodology they would recommend for a quantitative pilot in order to ensure that the questionnaire is appropriate in each country and to allow for social and cultural differences:

> "For such a quantitative pilot, we recommend that 100 interviews are conducted (with a spread of respondent types) in each country. This is our normal practice with the public sector research that we conduct in the UK."

15.118 They also advised us on the sample that would be appropriate for a quantitative pilot.

> "In the case of the qualitative pilot, we recommend that … we interview respondents who have experienced dissatisfaction with a product or service in the last six months so that we obtain full value from the 100 interviews we conduct (ie respondents are eligible to be asked all sections of the questionnaire). We would also aim for a good mix of respondents in terms of age, gender, ethnicity, social class and level of education, to ensure the questionnaire works for everyone. Sampling point locations would be chosen to ensure a rural/urban mix."

Omnibus versus ad hoc surveys

15.119 In our proposal to the Commission we said:

> ""The objective of the study as a whole, and the number and nature of the consumers to be surveyed, will normally determine what form of survey is most appropriate. Where a cross-section of the adult population as a whole is required, there is merit in considering the use of Omnibus surveys.

> "Most prominent survey firms run Omnibus surveys at regular intervals, usually once per fortnight, and cover a standard number of interviewees, usually 2,000, on a face-to-face basis. An Omnibus survey enables multiple clients to be included in each "wave" of interviews. It is for the survey firm to decide on the mix of clients most appropriate for each wave. From the client point of view, the primary advantage of the Omnibus approach is that it is normally less expensive than a tailor-made survey and can be repeated *ad infinitum* at prescribed intervals. Other advantages are that it is normally possible to book a slot in an Omnibus survey at fairly short notice, and that survey firms

are usually able to turn Omnibus survey results round very quickly. The downside is that the number of questions usually has to be limited, and that the Omnibus sampling approach often does not lend itself to identifying respondents who must meet a very precise range of characteristics.

15.120 Ipsos-MORI has rejected the idea that at this stage Omnibus surveying could be used as a vehicle, let alone produce reliable results, for a subject as complex as identifying and measuring consumer detriment. To quote directly from Ipsos-MORI:

"we firmly believe that Omnibus is not the way forward for this survey as it requires a longer questionnaire than is feasible (or cost-effective) using an Omnibus approach. A shorter questionnaire that could be used on an Omnibus would merely scratch the surface and also would be likely to provide you with a significant under-estimate of the extent of consumer detriment….

"we also do not recommend splitting [the questionnaire] in two and asking half the questions on one Omnibus and the other half on another Omnibus - for two reasons - a) that the questionnaire is still likely to be too long to be cost-effectively asked on an Omnibus survey and b) we feel the full benefit will be obtained by asking most of the questions of the same respondents, to provide a complete picture of the consumer detriment experienced."

15.121 We are satisfied that Ipsos-MORI's reasoning is correct, and we do not now propose Omnibus surveying as a way forward within the project.

Survey format

15.122 As discussed in section 13, surveys can be conducted in various ways, with possibilities including face-to-face interviews, telephone surveys, and internet surveys.

15.123 Therefore, the question arises as to what format is most suitable for a survey designed to estimate consumer detriment?

15.124 The advice we received from Ipsos-MORI on this issue was as follows (note that we asked them to assume that the survey would be of broadly the same length and complexity as the questionnaire used by the OFT in 1999):

"… we recommend that the interviews are conducted face-to-face, because:

a) The likely length and complexity of the interview rules out a telephone methodology. Ideally telephone interviews are kept to no more than 20 minutes in length. We estimate that the OFT questionnaire is in the region of 30 minutes if we take respondents through just one of the problems they have experienced in the last 6 months and more like 50 minutes if we were to take them through two problems (assuming they have experienced two or more problems).

b) This is a methodology that is possible in all 25 EU countries and so will produce comparable results. While both telephone and online methodologies are also possible in all 25 countries, telephone and, particularly, internet penetration vary greatly by country,

which will affect how representative the survey is of the population as a whole, and how comparable it is by country. This is particularly important in a survey of this nature, where the results are likely to vary greatly by, for instance, socio-economic group (eg awareness of consumer rights, expectations of customer service) and so too does telephone and internet penetration."

The Problem of a Few Cases of Large Detriment

15.125 In the above reviews of both the 1999 OFT survey of consumer detriment and the FTC survey on consumer fraud, we briefly referred to the problems caused by the fact that a small number of consumers reported very large financial losses. Both the OFT and the FTC identified this as a crucial issue for future surveys.

15.126 Given the importance of this matter, we analyse it further in this sub-section. We begin by describing the problem in more detail, drawing on relevant extracts from the OFT and FTC reports; and we then discuss a number of possible solutions which DG SANCO could adopt.

More detail on the problem

The OFT's experience

15.127 In its 1999 survey, the OFT found that some types of financial costs resulting from consumer problems were only encountered infrequently, and when they did occur their magnitude was highly variable.

15.128 The infrequency of some costs is illustrated by Table 15.5. The figures in the second column, which were calculated by the OFT by extrapolating its survey results, represent estimates of the number of times each type of cost is incurred *in the UK population as a whole*. The cost category in which the largest financial costs were reported (loss of value) was relevant to around 3 million consumer problems (compared to the OFT's estimated total of 64.9 million consumer problems in the UK). Hence, the number of such instances which would be picked up in a sample of 2,000 consumers is likely to be small.

Table 15.5: Infrequency of Certain Types of Financial Cost

	Number of problems where this cost is incurred (millions)	Average costs where incurred (£)
Telephone, post and stationery	22.7	11.45
Travel costs	9.1	27.45
Legal costs	0.59	246
Other expert advice costs	0.91	111
Other costs incurred dealing with the problem	3.96	106
Cost of repair or resolving problem at own expense	2.19	480
Costs of hiring replacement or alternative	2.69	225
Costs of repair for consequential damage	1.33	103
Loss of earnings	2.26	546
Loss of value	2.94	1,005

Source: OFT

15.129 This had important effects on the conclusions of the OFT study, because it meant that little confidence could be placed in average or total cost estimates. The OFT stated:

> "… the average costs in many categories are not well estimated [i.e. they are subject to wide margins of error]. Despite the overall sample sizes, some types of cost were only encountered infrequently. As a result, the effective sample size in these cases amounted to no more than a few % of the original sample. Moreover, the data often showed a lot of variability, involving quite modest costs in many cases but extending upwards to very high values in a few instances. The combination of the sample sizes and this variability results in fairly poor estimation of the average cost of come components, and contributed to the fairly wide overall error margins.

> "… With these margins of error, estimates of costs for individual types of goods and services would not be meaningful and no attempt has been made to derive such outputs." (p.23)

15.130 This is very significant for DG SANCO, because such wide margins of error severely reduce the usefulness of estimates of financial detriment for policy-making purposes. This is because, in the presence of such uncertainty:

(a) *No time-series analysis is possible.* Year-on-year changes in estimated consumer detriment are unlikely to be statistically significant when estimates are subject to such wide confidence intervals.

(b) *No cross-sectional analysis is possible.* With only a few instances of some types of financial cost being picked up in the survey, it becomes impossible to break down financial detriment (e.g. by product/service, type of problem or type of consumer) in any meaningful way.

15.131 As we discussed in section 12, we see limited value in tracking estimates of consumer detriment through time. Even if the measurement problems identified above can be addressed, it is likely to be difficult to attribute changes in consumer detriment to policy initiatives given that wider market developments will also be having an impact.

15.132 However, not being able to carry out cross-sectional analysis appears to us a more serious drawback. We assume that DG SANCO would wish to use estimates of consumer detriment to identify areas where consumers are experiencing significant harm and hence where policy initiatives might best be targeted. However, in order to use estimates in this way, it would appear essential to be able to break down estimated consumer detriment (e.g. by product/service, sales channel or Member State).

15.133 The OFT commented in some detail on the strategic lessons which should be drawn from its survey, and it is worth quoting this part of the report in full. (Although the OFT's comments relate particularly to carrying out time-series analysis, the same underlying issue needs to be addressed in order to allow for cross-sectional analysis.)

> "In addition to providing detailed estimation errors about the costs, the survey results provide important strategic information about estimating revealed consumer detriment using the methods employed here.
>
> "The finding that many types of cost were encountered infrequently, and when such costs are encountered they were observed to be highly variable underlines the inherent difficulty of measuring detriment.
>
> "The results of this survey point to a best estimate of detriment of roughly £8.3 billion with a 95% confidence interval approaching ± £2.66 billion. Yet in order to monitor changes in the level of detriment over time reliably we would probably need to measure detriment to within at least 5% of its true value, or roughly ± £0.4 billion.
>
> "While it is possible that the methodology might be improved in the light of the findings here, it is doubtful that such refinements could yield more than a modest reduction in the sampling errors. The only real mechanism available to achieve a major reduction in sampling errors would be a substantial increase in the size of the survey.
>
> "Unfortunately, sampling errors depend primarily not on the sample size itself, but on the square root of the sample size. Reducing the confidence interval from ± £2.66 to ± £0.4 [billion] or by roughly a factor of nearly 7 times, would require an increase in sample size of 7 squared, or very nearly a factor of 50.
>
> "Clearly, a data collection exercise on such a large scale – circa 100,000 respondents – would provide opportunities to make some economies of scale. Nevertheless, as a rough guide, measuring consumer detriment with sufficient accuracy to monitor changes over time would require an annual expenditure in the order of 50 times the cost of this research." (p.24)

15.134 A sentence earlier in the OFT report gives a monetary figure for the cost of such an expanded survey, stating that "measuring consumer detriment with sufficient accuracy to

monitor changes over time would require expenditure in the order of £3 million per annum."

15.135 We discuss the OFT's solution of increasing sample size later.

The FTC's experience

15.136 In its survey of consumer fraud, the FTC experienced the same problem as the OFT: there were a small number of consumers who reported very large financial losses. The FTC described the problem as follows (added emphasis):

> "Seventy-five per cent of the 320 survey participants who reported that they experienced one or more of the types of fraud investigated here and who said that they paid or lost money as a result incurred a loss of $630 or less. Six of the victims each reported losses of $5,000 or more; two of these six victims reported losses in excess of $40,000, while two more reported losses between $15,000 and $16,000. **These six victims accounted for almost one half of the total losses for all 320 victims.** Clearly, these values would substantially affect any average or total value." (Footnote 108)

15.137 In the FTC's case, there was an additional complication, in that attempts to corroborate the instances of large financial losses cast doubt on the reliability of this data. In particular, the FTC managed to re-contact two respondents who had reported large financial losses, and in both cases further questioning cast doubt on the original figures. A comparison of individuals' responses to different questions in the survey also suggested that there might be problems with the data: in one case, there was evidence to suggest that a cost of $39.95 had been mis-recorded as $3,995.

15.138 Consequently, the FTC concluded that it was not sensible to report average or total losses to consumers resulting from fraud:

> "In reporting victims' costs, we rank monetary losses in ascending order and look at the costs incurred by victims in the 25th, 50th, and 75th per centiles of those who reported losing money as a result of a particular type of fraud. We use this approach because a few participants reported very large losses from the fraud. Because we have been unable to verify these very large amounts, we believe that our approach provides a more representative picture of the losses victims typically incur than would the average of the reported values or the totals of reported losses." (p.38)

15.139 In a section of its report entitled "Issues for Future Studies", the FTC highlighted the problem caused by a few cases of large detriment. Given doubts about data reliability, the FTC discussion focuses on introducing checks on large values rather than on the wider sampling issue discussed by the OFT:

> "One area for improvement is the estimation of total dollars lost as a result of fraud. For several reasons, we concluded that we could not develop reliable estimates of total dollar losses in this survey. Instead, we limited ourselves to providing median estimates of the costs associated with each of the ten specific types of fraud.

"The primary problem we faced in estimating total costs was that the monetary losses reported by a handful of victims accounted for a very high proportion of the apparent total losses suffered by survey participants. Specifically, the losses reported by six individuals accounted for almost half of the total losses reported by 320 fraud victims. Given the relative magnitude of these six loss figures, and evidence we had of potential problems with some of those figures, we opted not to use these figures unless we could verify them. Verification proved infeasible, however. In any future survey work, it would be useful to include checks within the survey instrument to verify any values that seem unusually large." (p.117)

Summary of lessons for DG SANCO

15.140 It would be unwise to ignore the problems that the OFT and FTC encountered, as it seems likely that DG SANCO will encounter the same problem in any quantitative surveying of consumer detriment.

15.141 The experience of the OFT and FTC suggests that there are two principal issues which need to be addressed, namely:

   (a) Increasing the statistical robustness of estimates of financial detriment. In order to do this, the survey needs to pick up more cases of large financial detriment;

   (b) Verifying that the data is correct when respondents report very high figures for financial costs.

15.142 The first issue would appear to be the more difficult of the two to address, and possible solutions are discussed below.

15.143 The second issue would appear relatively easy to address, in that the instructions given to interviewers could ask them to query responses whenever reported financial costs exceed a certain threshold.

Possible solutions to the problem

15.144 In this section, we discuss four possible solutions to the problem of achieving statistically robust results:

   (a) Increasing the overall sample size used in the survey, as suggested by the OFT;

   (b) Splitting the sample, and asking (for instance) half of the respondents about the most recent problem and half about the worst problem;

   (c) Using filter questions inserted into an Omnibus survey to build up a database of consumers who have experienced problems which gave rise to large financial costs, and then including them within a separate full-scale quantitative survey;

   (d) Side-stepping the problem by focusing on other types of data or analysis.

15.145 Below, we discuss each of these possibilities in turn.

Increase sample size

15.146 At first glance, an increase in the overall size of the sample would appear to be the most obvious solution to the difficulty. However, as the OFT's report made clear, achieving a large enough sample would be prohibitively expensive. We note that this solution was never implemented by the OFT (and indeed, a survey of consumer detriment along the lines of that carried out in 1999 was never repeated).

15.147 DG SANCO has emphasised to us the importance of developing a survey methodology which can be implemented without excessive cost. Given this, we do not recommend an overall increase in sample size.

15.148 In any case, in our view increasing the overall sample size is an inefficient way of addressing the problem, because many of the additional consumer problems picked up would involve low-value detriment. This implies that a lot of the additional expenditure would effectively be spent on increasing the robustness with which low-value detriment is estimated, whereas the problem relates to estimates of high-value detriment.

15.149 Nevertheless, there are two points worth noting in relation to sample size:

(a) Surveying consumer detriment in several Member States will automatically increase the overall size of the sample (for any given national sample size). This should help to increase the robustness of estimates, and *may* make it possible to produce a breakdown of financial detriment along some dimensions (e.g. by product/service). However, producing a breakdown of detriment *between Member States* is likely to require an increase in the sample size within each Member State.

(b) Given the importance of sample size to the statistical robustness of results, it would appear sensible for DG SANCO not to achieve cost savings by cutting down on the number of people surveyed in each Member State (see later discussion on cost estimates).

Split sample

15.150 In its 1999 survey, the OFT first asked respondents about the number of problems they had experienced in different sectors or buying through different sales channels, and then randomly picked two problems to ask about in further detail (where respondents had experienced more than two problems). By randomising which problems were discussed, this approach helped to ensure that the results of the survey were representative.

15.151 However, a criticism of this approach is that, within the sample of consumers surveyed by the OFT, there may have been instances of high-value detriment which were never picked up because they were not selected by the randomisation procedure. Data on these cases would have been valuable in obtaining a clearer picture about the typical magnitude of these problems where they occur.

15.152 In light of this, one solution would be to split the sample, and ask about a random problem in some cases and about the worst problem in other cases. The idea is that data relating to random problems would provide information on the typical characteristics of problems, whereas data on the worst problems would permit more robust estimation of high-value detriment.

15.153 The OFT survey covered up to two problems per respondent, which (if repeated) would allow the split sample approach to be implemented by asking about a random problem in one case and about the worst problem in the other.

15.154 In our case, however, we have been advised by Ipsos-MORI that the questionnaire should be limited to one problem per respondent to avoid interviewee fatigue (which tends to reduce the quality of responses). Hence, implementation of the split sample approach would involve dividing the sample into two separate groups.

15.155 In practice there may be only a limited increase in the number of cases of high-value detriment picked up by splitting the sample. This is because many consumers questioned by the OFT had few experiences of consumer detriment to report, if indeed they had any at all. Hence, there may not have been many high-value cases which were missed as a result of randomly picking two problems.

15.156 As can be seen in the Ipsos-MORI papers annexed to this report, the split sample approach was tried out in the cognitive testing of the survey, and did not appear to cause any problems.

15.157 Overall, our view is that a split sample approach may help address the problem at the margin, but that on its own it is unlikely to resolve the problem completely.

Omnibus filter

15.158 The Omnibus filter approach involves three separate elements of surveying:

(a) A survey of a representative sample of consumers to gather data on the overall characteristics of consumer problems;

(b) A filter question (or small set of questions) asked in an Omnibus survey or another existing survey such as Eurobarometer, to identify people falling into the small sub-set of consumers who have experienced large financial detriment;

(c) A separate survey of the people identified in (b) to gather more detail on these high-value cases of detriment.

15.159 Although this may appear complex, in our view it represents a promising way of increasing the number of cases of high-value detriment covered in a survey, without wasting expenditure increasing the overall size of the sample.

15.160 There appears to be no reason why the same questionnaire could not be used in stages (a) and (c), although there might be some merit in exploring financial aspects of detriment in more detail in the second case. Clearly, however, this approach would require drafting a separate filter question (or set of filter questions) for stage (b).

15.161 In terms of the cost implications, it appears to us that stages (a) and (c) need not together be more costly than a standard survey, providing that the overall number of consumers taken through the full survey is the same.

15.162 There would unavoidably be additional costs involved at the second stage. However, as we discussed earlier, Omnibus surveys can be cost-effective because the survey costs are shared among a number of clients.

15.163 A key issue concerns the number of people that would need to be contacted at stage (b) in order to build up a large enough database of high-value cases. For instance, suppose the target is to survey 500 random consumers and 500 consumers who have suffered high-value detriment, with the threshold for defining "high value detriment" set at a level such that only 5 per cent of consumers fall into the this category. In this case, the market research agency would (on average) need to contact 10,000 consumers through Omnibus surveys in order to identify enough high-value cases. This would require the filter question to be included within a number of waves of an Omnibus survey.[223]

15.164 This number would need to increase further once we take into account the fact that, in practice, it is usually only possible to reach a proportion of respondents when trying to re-contact people. For instance, if the re-contact rate is 25 per cent, then the above figure would need to increase to 40,000 consumers in order to reach the target sample size of 500 in stage (c).

15.165 Respondents are occasionally given a financial payment for taking part in surveys, and it may be possible to achieve a higher re-contact rate by introducing a financial incentive. This may be cost-effective if it significantly reduces the number of Omnibus waves which are required to reach the target sample size. However, in order to avoid introducing any bias into results, it would be important that:

(a) People were only informed about this enhanced financial incentive *after* passing the filter question(s); and

(b) The payment was then fixed, whatever the person's responses in the subsequent survey (even if it subsequently turned out the financial detriment they experienced was lower than they had previously stated and did not actually pass the threshold).

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[223] Market research agencies typically carry out Omnibus surveys at regular intervals.

15.166 Despite these issues, it would still appear much more efficient to increase the number of high-value cases by using a filter rather than by increasing the overall sample size. Indeed, using the numbers in our earlier example, in order to identify the same number of high-value cases by expanding the sample *10,000 consumers would need to be taken through the full questionnaire.*[224]

15.167 Nonetheless, the large number of people that would need to be contacted at the Omnibus stage would need to be taken into account in costing the Omnibus filter approach and in planning the associated survey timetable.

Focus on other types of data or analysis

15.168 A solution which would side-step the statistical problem would be to focus on other types of data or analysis when analysing consumer detriment, without seeking to carry out cross-sectional analysis of financial detriment. For instance, this might involve:

(a) **Carrying out cross-sectional analysis on the number of problems** rather than on estimated financial detriment. This does not give rise to the same statistical problems and hence is much easier to do. For instance, the OFT presented a sectoral breakdown of the number of consumer problems in its report on the 1999 survey.

Obviously, the drawback is that data on the number of problems do not give any indication of how serious those problems were. To illustrate this point, we note that the OFT survey results suggested that there were a similar number of problems with "pets and pet produce" as there were with "conservatories". However, it seems plausible that financial losses associated with consumer problems in the second category might have been significantly greater.

(b) **Analysing financial detriment in terms of the median and other specified per centiles** (e.g. 25 per cent, 75 per cent), without attempting to calculate either total financial detriment or (mean) average financial detriment. This would potentially allow time-series or cross-sectional analysis to be undertaken (e.g. by comparing the median financial detriment suffered in different sectors), without any need to achieve robust estimates of high-value cases of detriment.

However, since high-value cases are known from past survey work to represent a significant proportion of total detriment, this would side-step any analysis of an important component of harm to consumers. There are also equity issues to take into account, since it could be argued that those consumers who suffer particularly adverse outcomes are most in need of protection and redress.

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[224] The issue of re-contact rates dose not arise in the case of expansion of the overall sample, since consumers would be taken through the full questionnaire at the time when they were first contacted.

15.169 Despite the limitations, the scope for undertaking such analysis demonstrates the value that could be gained from a survey of consumer detriment, even if the statistical problem associated with high-value detriment remains unresolved.

15.170 Overall, we view this approach as a fall-back option for DG SANCO if it were to decide that it is either not feasible or not cost-effective to address the sampling issue.

Conclusion on high-value detriment

15.171 For the purpose of comparison, Figure 15.1 illustrates the main options that are available for addressing the sampling issue.

Figure 15.1: Solutions to the Problem of Sampling High-value Detriment
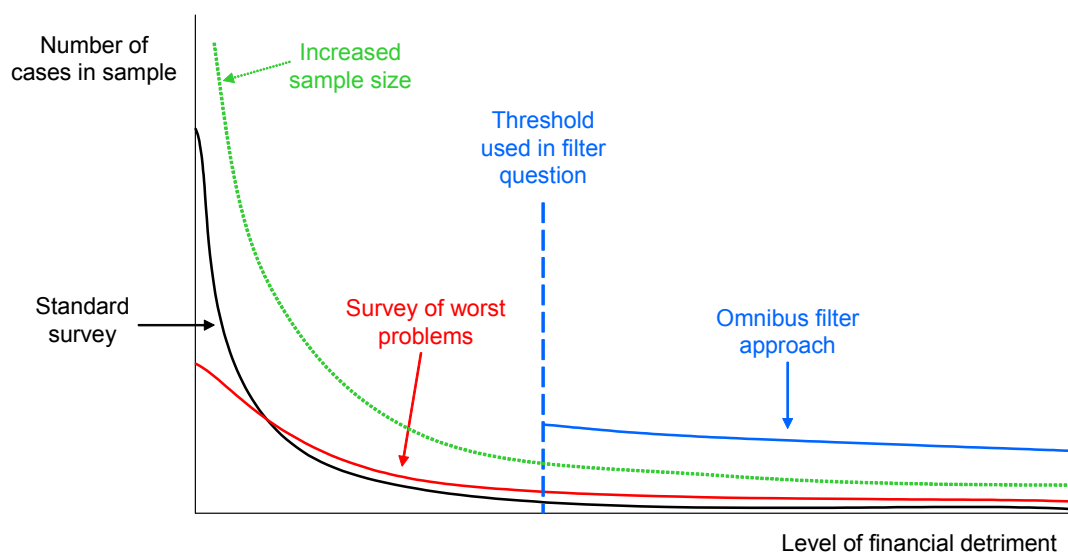
15.172 Ultimately, it is for DG SANCO to decide on the way forward in relation to these matters, by trading off the sort of analysis which it wishes to undertake against the implications for cost and timetable.

15.173 However, to assist in this decision, our conclusions can be summarised as follows:

(a) Increasing the sample size to allow robust estimation of financial detriment would appear prohibitively expensive, except insofar as this increase in sample size happens anyway as a result of conducting surveys in several Member States;

(b) Over-representing vulnerable groups does not seem sensible prior to the collection of quantitative data which would allow these groups to be properly identified. However, DG SANCO might wish to consider such an approach in future years if it adopts the rolling survey approach discussed later;

(c)   Splitting the sample and asking some respondents about a random problem and some about the worst problem may help, but this appears unlikely to address the problem completely;

(d)   Inserting a filter question (or set of questions) into an Omnibus survey to build up a sample of high-value cases would appear the most effective approach to estimation of high-value detriment. This will, however, have implications for cost and timetable;

(e)   As a fall-back option, there are other more limited types of cross-sectional analysis (e.g. on number of problems or median financial cost) which can be carried out on the results of a consumer survey.

Running the Survey: Methodology and Cost

A programme of rolling consumer surveys

15.174 DG SANCO has emphasised to us the importance of developing a survey methodology which can be implemented without excessive cost. For this principal reason we began to consider ways in which the cost of running surveys could be reduced. One such option is to establish a rolling programme of surveys such that individual Member States are surveyed only at intervals rather than annually.

15.175 In our view, a rolling consumer survey would have a number of advantages:

(a)   The survey could be refined each year in light of the previous year's experience;

(b)   The Commission would have access to new data each year on the type of problems consumers were experiencing, for a cross-section of Member States;

(c)   Over a period of years, results would become available for all Member States;

(d)   The survey exercise is likely to be much more cost-effective than surveying all EU Member States each year (and arguably more useful than a one-off EU-wide survey).

15.176 On the other hand, we see no major disadvantage to this approach. Our belief is that consumer experiences and expectations take time to develop, so that surveys conducted (say) every four or five years would actually reveal larger changes than surveys conducted every year.

15.177 With this in mind we have considered how the EU25 could be categorised to provide a meaningful mix of Member States at each survey round, assuming a cycle of either three, four or five years. We have also taken into account the expected accession of Bulgaria and Romania in 2007, to constitute a new EU27.

15.178 Among a variety of possible distinguishing features of each Member State, we would recommend in favour of three:

(a)   Accession group (i.e. EU15 versus EU10, or EU12 as the latter became in 2007);

(b)   Size of population, categorising each Member State as small, medium or large;

(c)   Linguistic/cultural group (which we explain below).

15.179 Our recommendation is that a mix of Member States in each category should be included in each annual survey round.

15.180 The **accession group** is self-defining, and in our opinion useful since the consumer experiences and expectations of citizens in the EU10 are likely to be different from those of citizens of the EU15, and may require different policy approaches.

15.181 The **population size** is likewise self-defining and, again, is likely in our view to prove useful in determining the scale and possibly the nature of policy approaches to consumer detriment in different Member States.   Solutions which are proportionate and yield net benefits in a Member State of (say) 60 million citizens may not be so in a Member State of 1 or 2 million.   We recommend a categorisation of small (up to about 5 million), medium (from 5 million up to about 20 million), and large (above 20 million).

15.182 We have opted for **linguistic/cultural distinctions** in substitution for the older north-south distinction.   It used to be the case that the media and other commentators took north-south to define cultural and to some extent behavioural, institutional and religious distinctions.   Thus, southern Member States were generally thought of as following a Catholic religious tradition and a communications culture based on Romance (Latin-based) languages.   Conversely, the northern Member States were thought of as predominantly Protestant and predominantly Anglo-Saxon (Germanic) in linguistic tradition.   Even at the time of the EU7, 9 and 12, the north-south categorisation seemed of dubious value, with (for example) Ireland and Germany having the Anglo-Saxon linguistic tradition but Catholic religious traditions too, though much more strongly in Ireland than in Germany.   Greece was southern in the climatic sense but was neither Anglo-Saxon nor Catholic in other dimensions.

15.183 The advent of the EU10 meant that the north-south distinction became increasingly irrelevant (one might argue that an east-west distinction was more apparent).   The accession of Bulgaria and Romania make it even more so.

15.184 In order to provide a meaningful categorisation of the EU25, and prospectively to the EU27, we concluded that a broadly linguistic basis could be useful.   Thus we suggest a broadly Anglo-Saxon grouping (Group1, encompassing English, German, Dutch, Flemish and Swedish), a broadly Romance grouping (Group 2, encompassing French, Italian, Spanish, Portuguese and Maltese), and a Group 3 covering all others (and thus encompassing the Slavonic and Baltic languages, Finno-Ugrian, and Greek).   We acknowledge that the groupings are far from perfect – Belgium and Luxemburg are hard to categorise – but they seem to us reasonably robust and useful.

15.185 The categorisations applied to the EU25 and the prospective EU27 appear in Table 15.6 on the following page.

15.186 We gave thought to a cycle of surveying that seems reasonable. Annual surveys seem to us needlessly frequent: shifts in consumer experience and the effects of policy change generally require longer than one year. At the other extreme, budgetary constraints might dictate that a full cycle should occupy at least five years. Yet a five-year interval between surveys in any one Member State seems to us a little protracted, so we feel that a four-year cycle is better. If budgetary constraints are not too severe, it might even be appropriate to adopt a 3-year cycle. For these reasons we have suggested which Member States might be included in cycles of 3, 4 or 5 years, and these appear in Table 15.7 below.

15.187 In compiling Table 15.7 we decided to take into account the fact that the EU25 will become the EU27 next year. Bulgaria and Romania are thus included, but are located in the last year of each cycle to allow them time to adjust to EU membership.

15.188 In each case, we included the UK and Poland in the first wave of surveying, on the grounds that this would allow the Commission to make full use of the findings of our cognitive testing in these countries, while the results are still recent and relevant.

15.189 To permit *approximate* annual comparisons, we suggest that an even mix of Member States should be included in each year of the cycle. However, whether on a 3-, 4- or 5-year basis, it is not possible to produce an exactly even mix of Member States according to each of the three categories described above. We therefore gave the highest priority to the distinction between EU15 and EU12, the next highest to size of population, and the lowest to linguistic/cultural features. We do not claim that this prioritisation is the one right choice that makes all others wrong: the Commission may wish to choose other priorities and nothing in this project would be damaged as a result.

Table 15.6: Categorisation of Member States

Code	Name	Accession EU15	Accession EU10	Population* Large	Population* Medium	Population* Small	Language group* 1	Language group* 2	Language group* 3
AT	Austria	X			X		X		
BE	Belgium	X			X		X		
CY	Cyprus		X			X			X
CZ	Czech Republic		X		X				X
DE	Germany	X		X			X		
DK	Denmark	X			X		X		
EE	Estonia		X			X			X
EL	Greece	X			X				X
ES	Spain	X		X				X	
FI	Finland	X				X			X
FR	France	X		X				X	
HU	Hungary		X		X				X
IE	Ireland	X				X	X		
IT	Italy	X		X				X	
LT	Lithuania		X			X			X
LU	Luxemburg	X				X		X	
LV	Latvia		X			X			X
MT	Malta		X			X		X	
NL	Netherlands	X			X		X		
PL	Poland		X	X					X
PT	Portugal	X			X			X	
SE	Sweden	X			X		X		
SI	Slovenia		X			X			X
SK	Slovakia		X			X			X
UK	United Kingdom	X		X			X		
Total EU25		15	10	6	9	10	8	6	11
	Bulgaria		X		X				X
	Romania		X	X				X	
Total EU27		15	12	7	10	10	8	7	12

*Note: * see accompanying text*

Table 15.7: Possible Grouping of Member States

	Member State	EU15 or 12	L/M/S	Language Group	Member State	EU15 or 12	L/M/S	Language Group	Member State	EU15 or 12	L/M/S	Language Group
	3 year cycle				**4 year cycle**				**5 year cycle**			
Year 1	Denmark	15	M	1	Bulgaria	12	M	3	UK	15	L	1
	Finland	15	S	3	Finland	15	S	3	Luxemburg	15	S	2
	UK	15	L	1	Ireland	15	S	1	Netherlands	15	M	1
	Hungary	12	M	3	UK	15	L	1	Poland	12	L	3
	Italy	15	L	2	Luxemburg	15	S	2	Slovakia	12	S	3
	Latvia	12	S	3	Malta	12	S	2	Slovenia	12	S	3
	Lithuania	12	S	3	Poland	12	L	3				
	Luxemburg	15	S	2								
	Poland	12	L	3								
Year 2	Austria	15	M	1	Austria	15	M	1	Austria	15	M	1
	Belgium	15	M	1	Belgium	15	M	1	Belgium	15	M	1
	Cyprus	12	S	3	Cyprus	12	S	3	Cyprus	12	S	3
	Czech Rep.	12	M	3	Czech Rep.	12	M	3	Czech Rep.	12	M	3
	Estonia	12	S	3	Denmark	15	M	1	Germany	15	L	1
	Germany	15	L	1	Estonia	12	S	3				
	Greece	15	M	3	Germany	15	L	1				
	Malta	12	S	2								
	Spain	15	L	2								
Year 3	Bulgaria	12	M	3	France	15	L	2	Denmark	15	M	1
	Ireland	15	S	1	Greece	15	M	3	Estonia	12	S	3
	Netherlands	15	M	1	Hungary	12	M	3	Greece	15	M	3

Portugal	15	M	2	Latvia	12	S	3	Latvia	12	S	3
Romania	12	L	2	Lithuania	12	S	3	Lithuania	12	S	3
Slovakia	12	S	3	Netherlands	15	M	1	Spain	15	L	2
Slovenia	12	S	3	Spain	15	L	2				
Sweden	15	M	1								
France	15	L	2								

Year 4

				Portugal	15	M	2	Finland	15	S	3
				Romania	12	L	2	France	15	L	2
				Slovakia	12	S	3	Hungary	12	M	3
				Slovenia	12	S	3	Ireland	15	S	1
				Sweden	15	M	1	Malta	12	S	2
				Italy	15	L	2				

Year 5

								Bulgaria	12	M	3
								Portugal	15	M	2
								Romania	12	L	2
								Sweden	15	M	1
								Italy	15	L	2

Summary	EU15 or 12	L/M/S	Language Group		EU15 or 12	L/M/S	Language Group		EU15 or 12	L/M/S	Language Group
Year 1	5-4	3-2-4	2-2-5		4-3	2-1-4	2-2-3		3-3	2-1-3	2-1-3
Year 2	5-4	2-4-3	3-2-4		4-3	1-4-2	4-0-3		3-2	1-3-1	3-0-2
Year 3	5-4	2-4-3	3-3-3		4-3	2-3-2	1-2-4		3-3	1-2-3	1-1-4
Year 4					3-3	2-2-2	1-3-2		3-2	1-1-3	1-2-2
Year 5									3-2	2-3-0	1-3-1

15.190 Ipsos-MORI also supplied a number of suggestions relating to the conduct of a large-scale multi-Member State survey of the typed proposed here, and we are glad to replicate Ipsos-MORI's advice below:

(a) Translate the "meaning" of the question, not just the words. Back translate all translated questionnaires.

(b) Ensure consistency of "show material" (the cards or other documents handed to interviewees to assist them in responding).

(c) Timing of the fieldwork needs to be consistent across Member States and across different years of the study

(d) Consider the urban/rural spread of each country and take it into account in planning fieldwork.

(e) The time of year at which the fieldwork is carried out is important. We suggest scrutiny of the product/service areas covered within the survey to identify sales patterns throughout the year and decide the most neutral time.

(f) Avoid the Mediterranean holiday period and check there are no festivals/celebrations/ public holidays or similar events taking place during the fieldwork period.

(g) Check the official description of the age of children/adults in each Member State and amend questions accordingly.

(h) Within each country check if any media campaigns may impact on the research.

(i) If pilot studies are to be carried out, select pilot Member States carefully to identify those which are most 'typical' in the context of the research.

(j) If sample boosting is required, boost by demographic characteristics e.g. age, gender or work status, or by geographic classification.

(k) Give due consideration to relevant laws, regulations and codes of conduct in each country

Cost estimates

15.191 We obtained cost estimates from Ipsos-MORI for each of the survey cycles proposed above. These are set out in Tables 15.8 and 15.9 below.

15.192 Ipsos-MORI provided us with cost estimates for both 500 and 1,000 respondents per Member State. We strongly recommend in favour of 1,000, for two reasons. First, the difficulty of finding enough cases of large detriment is substantially more difficult with 500 respondents than with 1,000. And secondly, the cost savings are generally not proportionate to the reduction in sample size: for example, the UK cost would be [✂] for 500 respondents and [✂] for 1,000, and for Denmark [✂] compared with [✂]. When the

costs are aggregated across the EU27, it emerges that the cost of covering 500 respondents per Member State comes to about two thirds (not one half) of the cost of covering 1,000.

15.193 That said, the Commission may wish to consider reducing the sample size to 500 in some or all small Member States. We note that survey costs are particularly high in Luxemburg, Finland and Ireland, so there is some budgetary advantage here.

15.194 Nevertheless, we have allowed in the estimates in this report for 1,000 respondents per Member State. In summary, the costs of surveying on the proposed three-year cycle come to an average of [✂] per annum. On a four-year cycle the costs average [✂] per annum; and on the five-year cycle the costs average [✂]. These estimates are all in 2006 currency. The annual costs do show some significant variation, but there is no reason why these should not be smoothed out somewhat by switching the sequence of some Member States in each cycle.

15.195 As Table 15.8 shows, Ipsos-MORI has allowed for interviewing in two EU languages in Belgium, Luxemburg and Finland, and for including Russian as a second interviewing language in the three Baltic states. On cost grounds we wanted to verify that this is necessary, and are completely satisfied that it is. In Finland, for example, there are communities accounting for 6 per cent of the population where Swedish is the first language, and indeed Finland recognises Swedish as an official language. In the Baltic states, even where the official language is the national language, there are still quite substantial proportions of the three populations which speak Russian – nearly 40 per cent in Latvia, nearly 30 per cent in Estonia, and some 8 per cent in Lithuania.[225] If the surveys we propose are to capture the extent of consumer detriment experienced by citizens whose first language is not the primary language, it is clearly a wise precaution to ensure that they are properly represented in the samples.

15.196 Ipsos-MORI does not see a necessity for extending cognitive testing to a larger number of Member States. It did, however, suggest that pilot quantitative testing be done in a small number of Member States (perhaps one from each language/cultural group) before full-scale surveying proceeds. Ipsos-MORI's recommendation on this point is for 100 interviews to constitute the pilot. An alternative way in which this could be done is for the interviewers to stop after the first X interviews (X to be decided in due course) and to report any difficulties encountered. This would serve to verify whether the questionnaire was working properly or whether modifications might be needed. Ipsos-MORI has not allowed for the cost of pilot quantitative testing in Tables 15.8 or 15.9. To estimate costs accurately would require some discussion with the Commission: firstly as to whether a 3-year, 4-year or 5-year survey cycle is to be adopted, and then to agree which countries might be most valuable as pilots. Ipsos-MORI did advise, however, that pilot testing would represent a very small percentage of the costs estimated in Tables 15.8 and 15.9.

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[225] Sources for all the statistics in this paragraph are CIA Factbooks.

15.197 On the following two pages, Table 15.8 represents Ipsos-MORI's estimates for interviewing in each of the EU27, and Table 15.9 represents a summary for each of the survey cycles suggested. Ipsos-MORI's estimates are for surveys in Member States in line with the questionnaire provided with this final report. The estimates do not include questions that might be included in Omnibus to identify consumers who have experienced exceptionally high values of detriment surveys (see earlier discussion), or the subsequent interviewing and analysis of such consumers.

Table 15.8: Summary Cost Estimates for Individual Member States

[✄]

Table 15.9: Summary Cost Estimates

[✄]

Could internet-based surveys be used to reduce costs?

15.198 Alongside the use of a rolling cycle of surveys and reduced sample size, we also considered whether internet-based surveying could be used to reduce costs, at least in some Member States.

15.199 However, after further investigation we would recommend against this option. Figure 15.2, which is based on data supplied to us by Ipsos-MORI, shows that in Great Britain only two thirds of the population have internet access, and that penetration varies substantially by age and social concern. Indeed, a serious problem for an internet-based survey is the fact that those groups who may be particularly vulnerable to consumer detriment – the elderly and those in lower social classes – are least likely to have internet access. The data show, for instance, that only 8 per cent of people in social class DE and over the age of 65 use the internet. Given that this is the situation in the UK, we would expect to find much greater problems with an internet-based survey in the new Member States.

Figure 15.2: Internet Usage by Age and Social Class
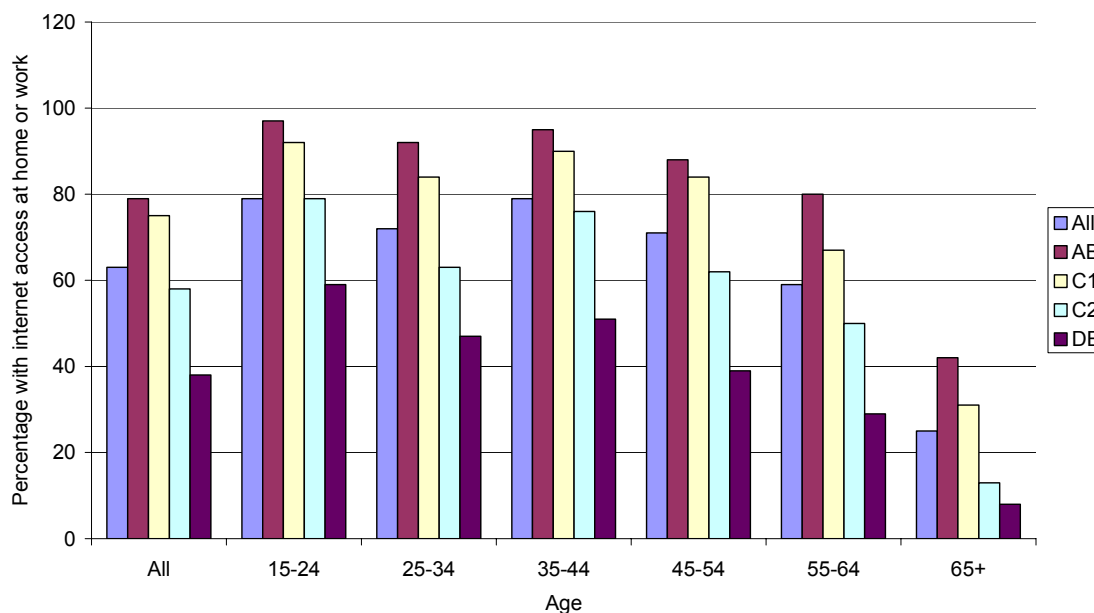
Source: Ipsos-MORI. The data is based on a survey of 4,203 adults (defined as over 15 years old) in Great Britain, which was carried out 27 April – 2 May and 25 – 30 May 2006.

Proposed Content of Survey

15.200 The questionnaire proposed in the current project was designed to fulfil several criteria:

(a) It should be consistent with the definition of, and proposed methods of measuring, consumer detriment.

(b) It should accommodate, as relevant, the best features of other surveys that we have considered.

(c) It should incorporate the best advice we have been able to obtain from experts in the field of consumer surveys.

(d) It should be subject to at least some testing in the current project, even though we know that it will not be used for real until after the project has finished.

(e) It should be replicable across all EU27 Member States.

(f) It should respect the budgetary constraints that DG SANCO is likely to face going forward.

15.201 We took expert advice from Ipsos-MORI on the design and application of the questionnaire. Europe Economics has worked a number of times with Ipsos-MORI and

has completed projects successfully with them. Ipsos-MORI has an excellent reputation in its own field, and its recent merger with Ipsos gives it greater presence across the EU as a whole.

15.202 The proposed survey questionnaire (revised to take account of the findings of the cognitive testing discussed in section 22) is provided as a separate document alongside this final report.

15.203 Table 15.10 is intended to be read in conjunction with the proposed survey questionnaire, and briefly explains the reasoning behind each survey question.

15.204 Some of the questions permit a wide variety of possible answers, so show cards are used extensively. This means that the survey cannot, in its present proposed form, be used for a telephone survey.

15.205 The questionnaire would normally take about 35 minutes to complete.

Table 15.10: The Reasoning Behind the Survey Questions

Information asked for	Explanation
PART 1: RESPONDENT'S EXPERIENCES OF CONSUMER PROBLEMS	
Q1, Q2, Q3: Total number and categorisation of problems within the last 12 months	
Whether the consumer has experienced at least one problem with a product or service in the last 12 months.	Twelve months is felt to be as far back as it is reasonable to ask a consumer to remember. It is a relatively easy time period to consider, since respondents can think back to what has happened since "this time last year".
	Even if the consumer responds "no" to this question, they are still asked Q2 in case seeing lists reminds them of a problem they had forgotten about.
Which product markets the problem(s) occurred in.	The classification of products is based on the first two levels of COICOP (Classification of Individual Consumption according to Purpose). This has two crucial advantages. First, COICOP was designed specifically to classify consumer expenditure. Second, survey results classified in this way could be used alongside other data from Eurostat and national statistical agencies e.g. on consumer expenditure and consumer prices. (The advantages of using COICOP are also discussed in section 21.)
Number of consumer problems in each product market identified in the above question.	Self-evidently important for estimating the total number of cases of consumer detriment.
Q4: Choosing one specific problem to explore in detail	
As currently drafted, the questionnaire asks about the most recent problem. This is because the respondent should be able to remember the details most clearly, and because it introduces a random element into the selection of problems. However, due to the fact that some consumption is seasonal (e.g. package holidays, Christmas gifts), asking about the most recent problem could still introduce biases. This could be addressed by **use of an algorithm to pick a random problem** from among those mentioned by the consumer in response to the above questions.	

Earlier in this section of the report, we discussed the possibility of using a split sample methodology (in which a proportion of respondents are asked about their **worst problem**) to help address the problems arising from a few cases of large detriment. This is not incorporated into the current draft of the questionnaire.

Q5: Detailing the product or service type, and the type of problem	
The product/service category and the type of problem	Free-form descriptions, to be coded after the interview (using all three levels of COICOP) to save time and allow more accurate coding.
Q6: When the problem started	
Expressed in relative terms, i.e. X weeks or months ago	Less demanding for the interviewee than asking for an actual date, and hence more likely to produce reliable response.
Q7: How many people were affected	
Divided between interviewee, other adults (most often spouse or partner) and children in the same household	This information is important. Not only is it useful for analysis in its own right, but it also allows the survey results to be adjusted for the fact that problems which affect more than one person are more likely to be picked up in the survey.
Q8: Single or multiple payment	
Was the price paid a single sum or money that was or is paid over several time periods? How much was the sum involved?	We need to establish how much money was spent on the product or service that caused the detriment. If the detriment concerns (say) a utility service, this may well be the subject of a regular monthly payment. To standardise, we ask how much would be spent in a full year – or the interviewee's best estimate.
Q9, Q10: amount paid	
How much was involved? Interviewer to note if the amount was more than £200.	Q21b is only asked in the case of high-value items, as estimating "loss of value" is difficult and has less meaning for many low-value items. The threshold is set at a UK value of £200, or the PPP equivalent in other Member States. The threshold could be changed if required.
Q11: Method of purchase	
Shop, internet, etc.	Self-evidently important for analysis.
PART 2: DEFINING AND DEALING WITH THE PROBLEM	
Q12: Type of problem	
We need to know here the specific type or types of problem that occurred with the one problem that the interviewer is investigating – not the list of problems the interviewee may have had with other products or services (Q1). The types of problem are the same as in Q1.	Self-evidently important for analysis. For example, there may be important correlation between problem type and product/service category.
Q13: Possible forewarnings of a problem	
Could the consumer reasonably have foreseen that there might be a problem or a risk with his/her purchase?	This provides an indication of what constituted a "reasonable expectation" in this instance, which is important in light of our definition of personal detriment.

Q14, Q15, Q16, Q17, Q18: Problem resolution	
Is the problem resolved, and if not how long has it been going on? If resolved is the interviewee happy with the outcome?	Self-evidently important for analysis. Again, there may be important correlation between problem resolution and product/service category.
PART 3: QUANTITATIVE IMPACTS ON THE CONSUMER	
Q19, Q20, Q21: Action taken, loss of time and loss of money	
Relate different types of action to the financial and time costs that consumers incur.	Break time and cost down into several categories in order to make it easier for the interviewee to answer fully and accurately.
PART 4A: PHYSICAL INJURY	
Q22: Types of injury	
Whether the interviewee suffered major or minor physical injury (e.g. a broken bone), or major or minor inconvenience (e.g. loss of use of a room)	Self-evidently important for analysis.
PART 4B: PSYCHOLOGICAL INJURY	
Q23, Q24: Types of psychological impact	
On a graded scale from 1 to 5, how did you feel when (a) you first discovered the problem and (b) as you went through the process of trying to resolve it?	We need to distinguish between the two phases of the interviewee's reaction because they could be quite different (e.g. an angry consumer may become calm if the redress process runs smoothly, or vide versa). They may also call for different policy responses – one to head off consumer detriment in the first place (if that is possible) and the second to deal with the process of obtaining a solution and/or redress. It could be informative to correlate different psychological reactions with demographic characteristics.
PART 5: SUPPLIER RESPONSES	
Q25, Q26: responses and compensation	
Possible forms of response and compensation	Self-explanatory. Essential for analysis.
PART 6: OTHER CONSUMER ASSESSMENTS	
Q27: Consumers' perceptions of "difficult" products or services	
What products or services do you find intrinsically complex, and what products or services do you find generally difficult to decide about because you are lacking enough useful information?	To allow construction of "information deficit" market monitoring indicators (see sections 21 and 24 for further details)
Q28: Consumers' reactions to different sales approaches	
On a graded scale, how problematic do you find different sales techniques, ranging from doorstep approaches through to phone calls and junk mail?	Self-evidently valuable in identifying whether direct marketing leads to consumer detriment, and which types of direct marketing are most problematic.
Q29, Q30: Scams	
How many scams has the interviewee experienced, and how much money, if any, has he or she lost?	In some Member States the rise in the prevalence of scams is becoming a matter for concern. These simple questions will help consumer authorities to measure (very approximately) the scale of the problem, relative to other sources of consumer detriment.
Q31, Q32, C33: Consumers' expectations and propensity to complain	

Three self-explanatory multiple-choice questions	An important counterfactual for defining and measuring consumer detriment is consumers' "reasonable expectations". These three questions seek to measure how "reasonable" the respondents' attitudes and expectations are.
PART 7: DEMOGRAPHICS	
Standard questions covering gender, age, location, marital status, work status, job group, income group and language.	Asking for demographic information is a standard procedure in mass surveying, and some items of demographic information are also needed for quote sampling purposes.
	In the context of consumer detriment, demographic information is important for analysis of detriment experienced by vulnerable groups of consumers. This is discussed further below.

Demographic information

15.206 Demographic information is likely to be particularly useful when thinking about consumer vulnerability. For instance:

(a) It should allow the Commission to determine how groups which we have already identified as potentially vulnerable are being affected by consumer detriment;

(b) It may allow identification of new "vulnerable groups" which appear to be suffering disproportionately from consumer detriment.

15.207 Certain demographic information is also be needed by Ipsos-MORI for quota sampling purposes.

15.208 We reviewed a range of demographic variables which could potentially be included in the survey, as listed in Table 15.11 below. The variables which are included in our proposed survey questionnaire are highlighted in bold.

Table 15.11: Possible Demographic Variables

Region

Gender

Age

Educational qualifications; or **how old person was when they finished full-time education**

Marital status

Urban/rural

Number of people in household

Number of dependent children in household

Whether respondent belongs to a single parent household

Employment status

Type of occupation

First language
Occupation of chief income earner
Ethnic group
Disability
Household income
Home ownership status (owner-occupied, rented etc.)
Whether household has internet access
Whether household has cable, satellite, digital set top box or any multi channel TV

15.209 One potential difficulty associated with demographic questions is finding classifications which can be applied consistently across EU Member States. Clearly, such consistency will make it easier to aggregate data or carry out cross-country comparisons.

15.210 Educational qualifications do not follow a uniform pattern across the EU25, and within any one Member State the nature of qualifications may change over time.[226] Our proposed survey questionnaire addresses this problem by asking respondents for the age at which they finished full-time education.

15.211 Ethnicity may be more difficult. One can readily understand that DG SANCO (and national authorities) would want to know whether and how ethnic minorities are particularly vulnerable to consumer detriment. But different ethnic mixes in different Member States may make a uniform classification difficult. For example, France is known to have quite large numbers of inhabitants from North Africa; the UK, by contrast, has very few such inhabitants but large numbers of people of African or Caribbean origin. Hence, one approach would be to attune the ethnic categories used in each Member State to that Member State, although this would make EU-wide aggregation of results more difficult.

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[226] In the UK, for example, where successive governments have changed the names and content of educational qualifications over many years, the age of the interviewee would strongly influence the response.

PART 4: MARKET MONITORING INDICATORS

16   NERA'S STUDY FOR THE OFT

16.1   In thinking about market monitoring indicators, we gave consideration to the findings of a previous study by NERA on empirical indicators for market investigations. This study was commissioned by the OFT and DTI, and its findings were published in September 2004.[227]

16.2   NERA's remit was to "generate an empirical tool which can be applied in a top-down way such that available and relevant data across all markets or sectors can be screened for problem markets." The definition of "problem market" encompassed all markets in which there was consumer detriment.

16.3   This remit is very similar to the our own task of examining whether it would be possible to establish indicators providing early warning against the occurrence of sub-optimal market outcomes for consumers. Hence, the outcome of NERA's research potentially provides some useful lessons for our own analysis.

16.4   That said, we consider that our own remit differs from NERA's in the following ways:

(a)   NERA's work was restricted to looking at "top down" indicators, whereas we are examining whether there may be a role for high-level "bottom-up" analysis alongside "top down" indicators (e.g. for use in screening an initial list of possible problem sectors produced by a top-down methodology);

(b)   NERA was asked to consider indicators that used "available and relevant data", whereas *a priori* we did not rule out the possibility of deriving indicators which would require some (feasible) data collection work by the Commission (e.g. aggregation of data from across Member States);

(c)   NERA's study focused on the UK whereas we are examining the possibility of marketing monitoring indicators which could be used across the European Union;

(d)   Our project is multi-disciplinary, and hence we consider indicators based on our psychology and marketing analysis as well as economics-based indicators.

16.5   This section first summarises NERA's findings, and then provides some comments on issues arising out of their work.

Summary of NERA's Report

16.6   The sub-headings below follow the structure of NERA's executive summary.

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[227]   "Empirical indicators for market investigations", Prepared for the OFT by NERA, September 2004.

Limitations

16.7   NERA concluded that there were severe limitations with a top-down methodology.   It stated that the most such indicators could do was to suggest that there was more likely to be problems in one sector than another, and that more detailed investigation of the sector would be needed to reach definite conclusions.

16.8   NERA highlighted the following problems with its top-down down indicators:

(a)   Some indicators are ambiguous at a theoretical level, as some types of problem would lead to a high value for the indicator and others would lead to a low value;

(b)   The data available for the indicators did not all use the same industry classification schemes, and the extent of sectoral coverage varied;

(c)   The overall results are sensitive to the methodology used to combine the indicators;

(d)   The SIC industry classification scheme, which NERA used where possible, includes categories which were:

– Broad, and thus cover a number of different relevant markets;

– Eclectic or catch-all categories (e.g. "manufacture of other food products not elsewhere classified");

– Difficult to interpret, in that the name given to the category does not make clear exactly what activities are included (e.g. "steam and hot water supply");

(e)   The SIC codes include sectors dominated by government provision or where regulation plays a very significant role;

(f)   Problem markets may be missed due to the effects of aggregation and averaging across relevant markets within SIC codes;

(g)   The indicators were constructed on a UK-wide basis, whereas in reality relevant markets might sometimes be regional or international;

(h)   It was not possible to find empirical indicators for many factors which were relevant to how well a market is functioning;

(i)   Limitations in the data that were available meant that some of the indicators were of low quality.

16.9   In their conclusions, NERA stated that bottom-up search techniques were needed as a complement to, and possibly substitute for, their top-down procedure.

Data sources

16.10   NERA identified a range of possible databases which might be relevant, some free and some available on commercial terms. Primary data sources fell into four categories: industry-level data, company-level data, scanner data, and industry reports. NERA also identified a number of secondary data sources (such as previous studies).

16.11   After discussion with the OFT, NERA made use of a sub-set of the databases which it had identified. The data used related specifically to the UK.

Indicators

16.12   The report sets out 32 empirical indicators, grouped into the following 9 categories:

(a)   Barriers to entry;

(b)   Productivity;

(c)   Concentration;

(d)   Profitability;

(e)   Prices;

(f)   Consumer complaints;

(g)   Innovation;

(h)   Switching costs;

(i)   Others.

16.13   Table 16.1 sets out the complete list of 32 indicators identified by NERA.

Table 16.1: List of Indicators

	Barriers to entry
1	Advertising-to-sales ratio
2	R&D expenditure to sales ratio
3	(Average firm turnover of the largest firms accounting for the first 50% of total industry turnover) / (Total industry turnover)
4	"Cost disadvantage ratio" = (Value added per worker in the smallest firms accounting for 50% of total industry turnover) / (Value added per worker in the largest firms accounting for 50% of total industry turnover)
5	Churn of businesses (defined as the number of firms who have entered or exited the market divided by the existing number of firms)
6	Tangible assets divided by firm turnover
	Productivity

7	Labour productivity growth
8	Labour productivity dispersion growth
9	Average TFP levels
10	Percentage growth in TFP
11	TFP dispersion growth
	Concentration
12	Average C3 ratio
13	Average C5 ratio
14	Increase in C3 ratio
15	Increase in C3 ratio (over different time period)
16	Coefficient of variation of C3
17	HHI
18	Market share volatility, defined as the average (across years and firms) percentage point change
19	Coefficient of variation of the market leader's share
20	Market share volatility
	Profitability
21	Average difference between ROCE and cost of capital within a SIC code
	Prices
22	Domestic retail prices of selected consumer goods compared with comparator countries
23	Trends in producer prices
	Consumer complaints
24	Complaints received by Trade Standards Departments
25	Consumer complaints received by BBC's watchdog
26	Complaints received by (specified) consumer complaint websites
27	Complaints received by the ASA and ITC
	Innovation
28	Average ratio of domestic R&D expenditure to that in peer countries
	Switching costs
29	Proportion of customers switching
	Other
30	Import penetration (imports to production ratio)
31	Market growth (average annual growth in production)
32	Market size

Note: Some indicators related to a specific year whereas others (e.g. those relating to growth over time) related to a period of years.

16.14   In their report, NERA presented the results that they obtained when they populated these indicators with UK data and identified the 10 sectors which scored worst on each indicator.

16.15   The report acknowledged that informational asymmetries may result in markets which do not work well for consumers. The report stated that such problems might occur in markets where, for example:

   (a)   There are high search costs;

   (b)   There is "focal" competition;

   (c)   Goods are bundled or there are after-markets;

   (d)   Products are complex;

   (e)   Purchases are infrequent;

   (f)   Credence goods are being sold;

   (g)   Commission payments are made to salespeople.

16.16   However, NERA stated (in line with its research brief) that identifying these characteristics was not possible within the context of a top-down methodology. Consequently, the report did not develop any indicators in this area.

Combination methodology

16.17   NERA suggested that some indicators should be accorded greater weight than others, depending on:

   (a)   The priority placed on the type of problem market which the indicator is designed to identify;

   (b)   The extent to which the indicator reliably identifies a particular type of problem market;

   (c)   The extent to which the data which are available is a good proxy for what the indicator is meant to measure.

16.18   The report presented results using an illustrative weighting scheme. NERA selected 11 of the indicators to use in its empirical tool,[228] and proposed two different combination methodologies:

   (a)   The worst ranked sectors on each indicator.[229] NERA stated that this had the advantages of making clear why each sector had been selected and side-stepping the problem of different industry classification schemes.

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[228]   These were concentration (C3), profitability, complaints received by Trading Standards, concentration volatility, churn, TFP growth, LP growth, advertising to sales ratio, cost disadvantage ratio, innovation, and import penetration.

(b) Weighted average rank across indicators (Borda scores). For those of the selected indicators which used the SIC industry classification scheme, NERA calculated a weighted average rank for each sector based on assigning a weight to each indicator on a scale of 1 to 5. The 15 worst-performing sectors were then identified. For three of the indicators which were not SIC-compatible,[230] NERA continued to take the worst ranked sectors on those individual indicators.

16.19 A practical problem with the second approach was that the data did not cover every SIC category for all indicators (i.e. there were some "missing observations").

16.20 NERA stressed that the results are sensitive to the weighting scheme chosen. It suggested that the weights are at least in part a matter of policy, in that they depend on the priority that the competition authority attaches to investigating different types of problem.

16.21 The paper suggested that the following methods could be used to prioritise within the lists of sectors identified by these two combination methodologies:

(a) Greater weight could be placed on large sectors;

(b) Categories which are eclectic or otherwise difficult to interpret could be removed;

(c) Sectors which are highly regulated or otherwise have extensive government involvement could be removed;

(d) Priority could be given to sectors deemed important for the functioning of the economy as a whole.

Individual sectors

16.22 NERA briefly discussed the 26 categories identified by its second combination methodology. These sectors are listed in Table 16.2 (with the worst ranking sectors identified separately for those of the selected indicators which were not SIC-compatible).

Table 16.2: Results of Second Combination Methodology

Worst 15 sectors based on weighted average of SIC-compatible indicators	
1	Processing of nuclear fuel
2	Retail sale of cosmetic and toilet articles
3	Wholesale of tobacco products
4	Other supporting land transport activities

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[229] NERA took the five worst ranked sectors for concentration (C3), profitability and complaints received by Trading Standards, and the three worst ranked sectors for the other selected indicators.

[230] These were complaints, advertising to sales ratio, and innovation.

5	Wholesale of mining, construction and civil engineering machinery
6	Manufacture of sugar
7	Other scheduled passenger land transport
8	Retail sale of books, newspapers and stationery
9	Retail sale of bread, cakes, flour confectionery and sugar confectionery
10	Youth hostels and mountain refuges
11	Gambling and betting activities
12	Retail sale of medical and orthopaedic goods
13	Manufacture of other machine tools not elsewhere classified
14	Repair of electrical household goods
15	Wholesale of sugar and chocolate and sugar confectionery
Five worst ranked sectors on complaints received by Trading Standards (see note to table)	
1	Home maintenance, repairs and improvements
2	Electricity
3	Second-hand motor vehicles
4	Telecommunications excluding mobile phones
5	Mobile phones and services
Three worst ranked sectors on advertising to sales ratio (see note to table)	
1	Denture fixatives
2	Bleaches and lavatory cleaners
3	Shampoos
Three worst ranked sectors on innovation (see note to table)	
1	Office accounting and computing machinery
2	Rubber and plastics products
3	Construction

Note: Complaints, advertising to sales ratio and innovation were not included within the calculation of weighted average scores as the data on these indicators were not SIC-compatible.

Issues Arising from NERA's work

16.23   It is useful to review the results of NERA's study and identify what lessons can be learned, both in terms of what works and what does not.

16.24   In our view, some of NERA's indicators are sensible ones to use. For example, we agree that consumer complaints are an important indicator of consumer detriment, even if they need interpreting with caution (see section 20). Further, measures such as concentration and profitability seem appropriate indicators to use in seeking to identify sectors in which market power may be an issue.

16.25   On the other hand, NERA also included some indicators which we think are unlikely to provide sensible answers.   For example, we suggest that sectoral differences in productivity growth are likely to be largely driven by differences in the scope for technological progress in different sectors of the economy, and hence are unlikely to

provide any useful information about whether or not there are consumer problems in a particular sector.[231]   Likewise, an international comparison of R&D intensity (NERA's indicator of innovation) seems more obviously relevant to industrial policy than to consumer policy.[232]

16.26   In section 17, we present a more comprehensive assessment of the individual indicators proposed by NERA and other possible indicators of our own.

16.27   Another general comment on NERA's work is that they do not appear to have found a solution to the problem of market definition. This problem concerns the fact that many possible indicators of market power (e.g. concentration) are sensitive to the definition of the market, but that arriving at a correct market definition is a resource-intensive, bottom-up process which is unsuitable for use in a market monitoring exercise. Some of the limitations that NERA identified (e.g. the danger of missing problem markets due to the effects of aggregation and averaging across relevant markets within SIC codes) relate precisely to this issue.

16.28   We provisionally suggest that it may be beneficial to focus on a smaller set of indicators than NERA used (perhaps 5 to 10). This would avoid the results obtained using better-quality indicators being obscured or confused by data from other lower-quality indicators, and would also make the tool easier to use.

16.29   We suggest that there may be better ways to combine the results obtained using different indicators. For example:

(a)   It may be better not to combine indicators which relate to different types of problem market. This could have the effect, for example, of meaning that a market with serious information or quality problems may be missed simply because it scored well on other indicators which were intended to capture market power problems.

(b)   It may be worth considering more sophisticated types of decision rule. For the purpose of illustration, it would theoretically be possible to use a decision rule of the following form:

"Select sector for further investigation if it scores badly on indicators X AND Y, OR if it scores badly on indicator Z."

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[231]   NERA did not consider international comparisons of productivity levels and productivity growth *in the same sector,* which arguably would be more meaningful. For instance, if a given sector in one country exhibited both lower absolute productivity and lower productivity growth than the same sector in other countries, then this could indicate a problem which might be harming consumers. Such a comparison is most useful for markets which are national or local in their geographic scope, since in international markets consumers can purchase from importers or overseas suppliers and thus may not be harmed by low productivity on the part of domestic producers.

[232]   The fact that companies outside the EU have carried out the R&D does not mean that innovative products will not become available to EU consumers.

16.30   Finally, it may be worth considering a second stage of analysis to filter the results. This second stage might involve high-level qualitative analysis to identify those sectors where there really is likely to be a problem. This might include qualitative consideration of some of the bottom-up indicators (e.g. whether credence goods are being sold) which were outside the remit of NERA's study.

17   OUR ANALYSIS AND PROPOSED APPROACH

17.1   Our terms of reference require us to examine "whether it would be possible to establish indicators providing early warning against the occurrence of sub-optimal market outcomes for consumers".

17.2   This section of the report presents our analysis on the subject of market monitoring indicators. There were two stages to our analysis:

   (a) *Development of provisional suggestions* – this was based on theoretical analysis of a wide range of possible indicators followed by a review of data availability for the most promising indicators;

   (b) *Pilot testing and final conclusions* – we then carried out pilot testing on our provisional suggestions, and made a number of refinements.

17.3   In this section, we set out our assessment of a wide range of possible indicators and some discussion of alternative ways in which the results from different indicators could be combined.   Based on this analysis, we outline the provisional suggestions which we developed.

17.4   Sections 18 to 21 provide further detail on different components of our provisionally suggested approach. In particular, section 18 covers consumer complaint data; section 19 sets out indicators arising from our psychology and marketing analysis; section 20 discusses market power indicators; and section 21 contains discussion of "information deficit" indicators.

17.5   The results of pilot testing of the indicators and our final conclusions are discussed separately in section 24 of the report.

17.6   We would emphasise that, even after pilot testing, the conclusions we have reached are tentative, as there is still uncertainty about how effective market monitoring indicators will prove to be in practice.

17.7   If DG SANCO decides to take forward our suggested approach to market monitoring, we would encourage it both to refine the methodology in light of experience and to review the whole exercise at regular intervals to evaluate how useful it is proving to be. The option of discontinuing the exercise if it appears not to be producing useful answers should not be ruled out. However, in conducting such reviews, we advise that the relative contribution of different components of the market monitoring exercise (e.g. complaint data versus market power indicators) should be assessed separately, as some parts of the methodology may be worth continuing even if others are abandoned.

Assessment of Possible Indicators

17.8   In assessing possible market monitoring indicators, we have gone through the following process. :

(a) Produced an extensive list of possible indicators, drawing on our literature review (especially the study by NERA) and on brainstorming;

(b) Identified a list of criteria for assessing the suitability of indicators, which were:

— **Conceptually robust**: is there a clear conceptual link with the possible presence of consumer detriment?

— **Measurable (conceptually)**: are there any methodological difficulties (at a conceptual level) in measuring this indicator?

— **Data widely available**: are the data likely to be obtainable for most sectors of the economy?

— **Simple to use**: would non-specialist desk officers within the European Commission find the indicator easy to use? For example, would raw data need complex manipulation in order to calculate the indicator?

— **Quick and low cost**: can the indicator be used quickly and at low cost?

— **Transparent to stakeholders**: is the indicator intuitive, such that stakeholders are likely to understand the results?

— **Repeatable**: can the indicator be repeatedly used over time, or is it reliant on one-off data from the past?

— **Costly for firms to manipulate**: would firms find it difficult or costly to manipulate the indicator so as to prevent consumer problems being identified by the Commission?

(c) Qualitatively assessed each possible indicator against these criteria;

(d) Drawn some conclusions on which indicators are most promising.

17.9 Most of the above criteria are similar to those we used in section 13 for assessing possible methodologies for estimating consumer detriment (reflecting the fact that these criteria are generic). We did, however, refine the indicators on measurability and data availability to fit better with our present purpose. In addition, we added a criterion relating to whether the indicator was costly for firms to manipulate.

17.10 The results of our qualitative assessment are set out in Table 17.1 on the following pages. The list of indicators in the first column includes most of those suggested by NERA, as well as some further possibilities of our own. The second column gives our overall (provisional) judgment on whether each indicator should be used. The three columns shaded green (and with the diagonal lines) show which type or source of consumer detriment each indicator relates to. The other columns shaded yellow (and without the diagonal lines) use crosses to show which of the criteria each indicator fails on.

17.11 The conclusions in the first column do not just reflect the scores assigned to that indicator. In particular, they also reflect:

(a)   The desirability of having some indicators for each type of consumer detriment;

(b)   Our preference for a parsimonious set of indicators, to avoid "information overload" and to make any market monitoring tool easier and less resource-intensive for the Commission to use.

17.12   Hence, where there were a number of indicators which were broadly measuring the same type of market characteristic and which scored equally well, we generally made a judgment about which one or two indicators in this group were most suitable for inclusion in a market monitoring tool.

17.13   The scores shown in the table abstract from the problem of market definition (discussed later in section 20). Some of the indicators – in particular, the measures of concentration – become conceptually weak when calculated on the basis of data which does not relate to a relevant economic market.

17.14   The scores for the indicator labelled "data widely available" reflect our initial judgment of likely data availability. As discussed later, as part of phase 2 of the project we conducted further research on data availability for those indicators included in our provisionally suggested approach.

17.15   As earlier with our assessment of methodologies for estimating consumer detriment, some caveats should be borne in mind in reading through the tables:

(a)   The assessment unavoidably includes an element of judgment, and hence some of the individual results could legitimately be debated.

(b)   The methodologies cannot be compared simply by adding up the number of criteria on which they fail. It may not be appropriate to place equal weight on all of the criteria, and consideration also needs to be given to how badly a particular methodology may fail on each criterion.

17.16   Table 17.1 only covers quantitative indicators. However, the 2-stage procedure which we propose later would allow the inclusion of qualitative indicators at the second stage.

Table 17.1: Initial Assessment of Possible Quantitative Indicators

Possible quantitative indicators	Provisional conclusion	What type of detriment does it relate to?			Does it fail on any of the criteria?							
		Personal detriment	Structural detriment		Conceptually robust	Measurable (conceptually)	Data widely available	Simple to use	Quick and low cost	Transparent	Repeatable	Costly for firms to manipulate
			Market power	Other market or regulatory failures								
Barriers to entry (and expansion)												
Advertising to sales	no		✓		✗		✗					
R&D intensity	no		✓		✗		✗					
Patents	no		✓		✗			✗	✗			✗
Average size of firms accounting for first 50% of output	no		✓		✗							
Cost disadvantage ratio	no		✓		✗							
Number of entrants in last X years	no		✓									
Churn (entry plus exit)	yes		✓									
Tangible assets over turnover	no		✓		✗							
CAPEX/OPEX	no		✓		✗							
Small firm growth relative to large firm growth	no		✓									
Productivity												
Labour productivity growth	no	------ none ------			✗			✗	✗	✗		
Labour productivity dispersion growth	no	------ none ------			✗			✗	✗	✗		
Average TFP levels	no	------ none ------			✗			✗	✗	✗		
Percentage growth in TFP	no	------ none ------			✗			✗	✗	✗		

Measure	Use									
TFP dispersion growth	no	------- none -------		✗			✗	✗	✗	
International comparison of productivity level in same sector	no		✓				✗	✗	✗	
International comparison of productivity growth in same sector	no		✓				✗	✗	✗	
Concentration										
Average C3 ratio	yes	✓								
Average C5 ratio	no	✓								
Increase in C3 ratio	no	✓		✗						
Increase in C5 ratio	no	✓		✗						
Coefficient of variation of C3	no	✓					✗			
HHI	yes	✓								
Market share volatility	yes	✓								
Coefficient of variation of market leader	no	✓		✗			✗			
Number of firms	no	✓		✗						
Number of mergers in last X years	no	✓		✗						
Profitability										
Accounting profitability	yes	✓		✗						✗
Economic rate of return	no	✓		✗		✗	✗	✗	✗	
Excess profitability (accounting return less estimate of cost of capital)	?	✓					✗	✗	✗	
Shareholder returns	yes	✓		✗		✗				
Proxy for excess shareholder returns	?	✓				✗	✗	✗	✗	
Share price correlation within SIC code	no	✓		✗		✗	✗	✗	✗	
Prices										
International price comparisons - within EU	no	✓		✗	✗	✗	✗	✗	✗	
International price comparisons - EU vs non-EU	no	✓		✗	✗	✗	✗	✗	✗	
Trends in prices	no	✓		✗						
Price dispersion	no	✓	✓			✗		✗		

Price volatility	no		✓		✗							
Complaints												
Consumer complaints (e.g. to Trading Standards or consumer organisations)	yes	✓										
Change in consumer complaints	no	✓										
Innovation												
International comparison of R&D intensity - within EU	no			✓	✗		✗		✗			
International comparison of R&D intensity - EU vs non-EU	no			✓	✗		✗		✗			
Switching												
Search costs	no		✓	✓			✗	✗	✗	✗		
Proxies for search costs	no		✓	✓			✗		✗			✗
Switching costs	no		✓	✓			✗	✗	✗	✗		
Rate of switching	no		✓	✓			✗		✗			
Other												
Import penetration into EU	no		✓		✗							
Judgments by competition authorities	no		✓	✓				✗	✗		✗	
Academic interest (e.g. number of papers/citations)	no	✓	✓	✓	✗			✗	✗	✗		✗

Possible Combination Methodologies

17.17 A market monitoring methodology needs to consider not just the indicators themselves, but how the results of the various indicators should be combined.

17.18 As discussed in the previous section of the report, NERA's study considered two different combination methodologies:

(a) Selecting the worst ranked sectors on each indicator. This had the advantages of making clear why each sector had been selected and side-stepping the problem of different industry classification schemes.

(b) Calculating a weighted average rank across indicators (Borda scores). As NERA acknowledged, the results obtained using this approach are sensitive to the precise weights which are chosen.

17.19 These are by no means the only combination methodologies which are possible, and below we briefly discuss some other possibilities.

17.20 One possible improvement to the second of NERA's methodologies would be to calculate separate Borda scores for groups of indicators which were intended to capture different types of problem (e.g. market power, information problems). This would avoid the problem with NERA's approach identified in the previous section, i.e. that a market with (for example) serious information or quality problems might be missed simply because it scored well on other indicators which were intended to capture market power problems.

17.21 A further improvement to the second of NERA's methodologies might be to use a "neural network" approach to re-weight the indicators in light of experience. For example, this might be based on the 2-stage procedure which we propose in the next sub-section, in which a second qualitative stage of analysis is carried out to filter the results obtained from applying top-down quantitative indicators across the economy. In more detail, a neural network would involve the following iterative process:

(a) Stage 1 Borda scores would be calculated for all sectors of the economy using an initial set of weights based on the policy-maker's judgment about the likely significance of each indicator;

(b) The worst-ranking sectors obtained using these weights would go through a stage 2 assessment, in which some would be filtered out as "spurious results" and others would be identified as "potential problem markets";

(c) A mathematical algorithm would be used to work out which indicators played the greatest role in the selection of the "potential problem markets" and the least role in the selection of the "spurious results";

(d) These best-performing indicators would have their weights increased by a pre-defined increment, while the weights on the indicators which performed less well would be reduced correspondingly;

(e) The Borda scores would be recalculated for all sectors of the economy using the new set of weights;

(f) The process from (b) onwards would be repeated.

17.22 If the Borda score approach were adopted, then it might be appropriate for the Commission to repeat this iterative process several times when first making use of the indicators until the results (in terms of the sectors which were being picked out by the Borda scores) had stabilised and the algorithm indicated that no further improvements to the weights were possible. Clearly, this would require an initial investment of resources by the Commission.

17.23 Subsequently, it might be appropriate to adjust the weights year-on-year using the neural network. In other words, the results from the previous year's stage 2 assessment could be used to adjust the weights used in calculating Borda scores for the current year. This would be intended to ensure that any changes through time in the relevance of different indicators (e.g. accounting rates of return becoming more useful following an improvement to accounting conventions) were taken into account.

17.24 The disadvantage of the neural network approach is the extra complexity it would introduce. It would also tend to reduce transparency (since without an understanding of the algorithm it would be unclear exactly what was driving the weights).

17.25 There are other possible combination methodologies which would combine the results of indicators without requiring the calculation of Borda scores at all. For example:

(a) Some indicators could be designated as "priority indicators", such that if a sector scores badly on one of these indicators it is automatically passed through to stage 2. As discussed below, we suggest that consumer complaints should be one such priority indicator.

(b) Sectors could be selected for further investigation if they score badly on several or all indicators within a group. For example, this may be appropriate for indicators relating to market power, since for market power to exist several factors would generally need to be present together (e.g. high concentration and barriers to entry).

Provisional Suggestions (Prior to Pilot Testing)

17.26 In the discussion below, we set out the provisional suggestions we developed as to a possible way forward on market monitoring. Some of these suggestions were later amended in light of the results from our pilot testing (see section 24).

17.27 We suggest that it is worth considering a two-stage process for market monitoring:

(a) *Stage 1* – This would use top-down quantitative data to scan the economy for sectors in which there appeared to be a problem. The idea is that this would involve the collection and manipulation of data using a pre-determined procedure, and thus would not require desk officers to make judgments.[233] (Indeed, it might be possible to automate the stage 1 analysis.) Given NERA's experience with top-down indicators, it seems likely that the results of this stage would include a significant number of "false positives", i.e. sectors in which there is no consumer detriment but which are nonetheless identified by the indicators as potentially problematic.

(b) *Stage 2* – The purpose of this stage would be to filter the results of stage 1 to eliminate "false positives" and to identify sectors in which there were reasons for suspecting that consumer detriment really did exist. This stage would require desk officers to make judgements and to assess sectors against qualitative criteria, informed where necessary by limited research and data analysis.

17.28 The advantage of this two-stage process is that it would combine a top-down process capable of scanning the entire economy with bottom-up analysis capable of providing more considered conclusions as to whether consumer detriment may be present in any given sector.

17.29 However, even after this two-stage process it would not be possible to reach definitive conclusions as to whether consumer detriment is present in a sector – this would require a more full investigation. Rather, the purpose of the indicators would be to identify sectors in which there were reasons *to suspect* that consumer detriment might be present.

17.30 Another limitation of the indicator approach is that there are likely to be at least some "false negatives", i.e. sectors where there is significant consumer detriment, but which are not picked up as being problematic by the indicators.

17.31 For this reason, market monitoring indicators should be viewed as a supplement to, rather than a replacement for, other methods of identifying consumer problems. We suggest that there would be a continuing need for the Commission to react to consumer problems which came to its attention in other ways, e.g. through political debate, press campaigns or representations from consumer groups.

17.32 Indeed, where potentially problematic sectors are drawn to the Commission's attention in other ways, it could make use of the stage 2 process to reach a preliminary conclusion about whether or not there were likely to be serious consumer problems in this sector. This would assist the Commission in making a decision about whether or not to engage in a more detailed investigation.

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[233] The civic voice indicators are an exception to this, and may require some judgment on the part of desk officers.

17.33   Below we discuss our provisional suggestions regarding the analysis that might be carried out for each of the two stages.

Stage 1: scanning top-down data

17.34   As discussed in our comments on NERA's work, we see merit in limiting the number of top-down indicators included in the market monitoring tool (perhaps focusing on 5 to 10 indicators). This would help to prevent the results from high-quality indicators being obscured by other lower quality indicators. It would also make the tool less demanding to use in terms of resource and data requirements, and would help to avoid confusion arising from "information overload".

17.35   We assume that the Commission is looking for indicators which can be populated using data which are either already available or which can be obtained fairly easily (e.g. by aggregation from national sources). We have explored the availability of data for our suggested indicators (see discussion in next few sections of the report).

17.36   Based on the analysis set out in Table 17.1, we provisionally suggested the following set of indicators:

(a)   **Consumer complaints**:

(b)   **Civic voice indicators** derived from our psychology and marketing analysis;

(c)   **Market power indicators**:

  – Churn;

  – Average C3 ratio;

  – HHI;

  – Market share volatility;

  – Shareholder returns;

  – Accounting profitability;

(d)   **"Information deficit" indicators** (discussed in section 21).

17.37   We provisionally suggest the following methodology for combining the stage 1 indicators:

(a)   Any sector which scores badly on the consumer complaints indicators should proceed to stage 2. This is on the grounds that a high level of complaints provides *prima facie* evidence of personal consumer detriment, and hence it is appropriate to give more detailed consideration to sectors where there are a large numbers of complaints (see section 18 for discussion of consumer complaints).

(b) Likewise, any sector which scores badly on the "information deficit" indicators (see section 21) should proceed to stage 2, as this would provide *prima facie* evidence that the sector has characteristics which could give rise to consumer detriment;

(c) Sectors or types of transaction which are picked up by the civic voice indicators should also proceed to stage 2. Given that these indicators are derived from a psychology and marketing perspective, it would not be easy to combine them with economics-based indicators at this stage;

(d) Our provisional suggestion (prior to pilot testing) was that the six indicators relating to market power should be combined using the methodology shown in Table 17.2 below.

Table 17.2: Suggested Combination Methodology for Market Power Indicators

Sector goes through to stage 2 if it has…				
High concentration	**AND**	Possible barriers to entry or expansion	**AND**	High profitability
Indicated by…				
High average C3 ratio		Low churn		High shareholder returns
OR		**OR**		**OR**
High HHI		Low market share volatility		High accounting profitability

17.38 The reason why we provisionally suggested combining the market power indicators in this way was as follows:

(a) High concentration is not on its own sufficient for a firm to have market power: there must also be barriers to entry/expansion, because otherwise attempts to exercise market power are likely to be undermined by new entry or by existing players expanding their output. Hence, it seemed appropriate to select only those sectors which exhibit both high concentration and barriers to entry or expansion.

(b) In addition, it is not the *existence* of market power but rather the *exercise* of market power which leads to consumer detriment. Hence, it appeared appropriate to focus on sectors where high profitability suggests that firms *may* be exercising market power.

(c) However, there are many other reasons why profitability may be high, without implying the presence of consumer detriment. For instance, high and low profitability in the short run act as signals for market entry and exit. High profits may also be a reward for innovation or good management, or reflect successful outcomes to

investments which *ex ante* were uncertain and which had a corresponding downside risk. Hence, to reduce the number of "false positives" it seemed appropriate to use the "high profitability" indicator only where we have evidence (from the other indicators) that market power may be an issue.[234]

(d) For each market characteristic (high concentration, barriers to entry/expansion, and high profitability), we suggested that a sector should be assumed to exhibit this characteristic if it scores badly on either of two indicators (see Table 17.2). The original idea was that this would reduce the probability that sectors may be missed due to the limitations of individual indicators.

17.39 We suggested that the combination methodology discussed above had advantages over a neural network, because the reasons behind the way in which the indicators are combined are intuitive. By contrast, a neural network approach based on Borda scores would be less transparent because of the more complex way in which weights are derived. In addition, using Borda scores would be more restrictive because, while the weights could be adjusted, the overall assessment of each sector would by definition be based on a weighted average score and hence would not be capable of accommodating the more complex interactions between the indicators which we discuss above.

17.40 There are various methods which could be used to derive threshold values for each indicator, for use in deciding whether a sector scores badly. For instance, thresholds could be derived on the basis of:

(a) *Widely-accepted values.* For instance, the US Department of Justice merger guidelines suggest that markets are highly concentrated if they have an HHI score above 1,800; that markets are moderately concentrated if they have an HHI score in the range 1,000 to 1,800; and that an HHI score below this level indicates that the market is not concentrated. Hence, a threshold value of 1,800 for the HHI indicator would be in line with regulatory precedent.

(b) *Intuitively "reasonable" values.* For example, a value somewhere in the range 10-15 per cent might seem an intuitively reasonable threshold to use for high shareholder returns.[235]

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[234] Even this is unlikely to be sufficient to remove all "false positives". However, as discussed earlier, stage 2 is intended to enable desk officers to filter the initial results produced by stage 1 to identify those sectors where consumer detriment is most likely to be present.

[235] A robust analysis of whether shareholders were making high returns would have to take into account the level of non-diversifiable (or systematic) risk that they were bearing. This in turn would depend on the underlying exposure of the business to systematic risk as well as its financial structure. The exposure to systematic risk of shareholders in a firm or sector is measured by the firm or industry's equity beta. A possible refinement of the market monitoring approach discussed in this report would therefore be to use estimates of industry betas to allow shareholder risk to be taken into consideration when assessing whether shareholder returns were high. However, this would add to the complexity of the exercise.

(c)   *Ranking of sectors.* We could define thresholds in relative terms (e.g. "assume sector has barriers to entry or expansion if it is in the lowest 50 sectors by churn or market volatility").

(d)   *Trial and error.* The Commission could try an initial set of thresholds and adjust them by trial and error until the results seemed intuitively reasonable. (Alternatively, the Commission could use a more formal iterative process along the lines of that described earlier in our discussion of different combination methodologies.)

17.41   The level of the thresholds will determine how many sectors are selected at stage 1, and hence this should also be taken into account in deciding on what values to use. On the one hand, the Commission will want to select a sufficiently large number of sectors such that, once the stage 2 filtering process had been carried out, it has identified the most important sectors in which there are reasons to suspect the existence of consumer detriment. On the other hand, selecting too many sectors would increase the resources required to carry out stage 2 and thus reduce the value of the stage 1 scanning exercise.

17.42   As part of phase 2 of the project, we developed a possible set of thresholds for the market power indicators. This was done as part of our pilot testing work, and is discussed further in section 24.

17.43   To help with prioritisation of sectors and interpretation of results, our provisional suggestions were that data should also be collected on:

(a)   The size of the sector, to allow prioritisation of larger sectors where the aggregate impact on consumers may be greater;

(b)   Import penetration from outside the EU (to shed light on whether EU production data are a good proxy for consumption, and on whether an EU-wide market definition may be too narrow);

(c)   The level of trade between EU Member States (to shed light on whether an EU market definition may be too wide in geographical terms).

17.44   The data on sectoral size could be used in at least two different ways. One possibility would be to use data on sectoral size to weight or adjust the indicator results before selecting sectors for stage 2 analysis, so that the larger the sector the greater the likelihood that it would be selected, for any given set of indicator scores. This is probably unnecessary for the complaint indicators (as the size of the sector may already have an influence on the number of complaints), but could be helpful when selecting sectors on the basis of the market power indicators. Alternatively, the selection of sectors at stage 1 could be based on unadjusted indicator scores, with sectoral size being one of the factors taken into account when carrying out the stage 2 filtering process.

Stage 2: filtering the results

17.45   As discussed above, stage 2 would filter the results from stage 1, and would require the desk officer to make judgements (e.g. assessing a sector against qualitative, bottom-up indicators), informed where necessary by some limited research and data analysis.

17.46   At a high level, the stage 2 process . would involve the following steps:

(a)   First, the removal of results which were obviously spurious (e.g. sectors such as diplomatic services which are publicly provided);

(b)   Second, checking of the validity of the reasons why each sector was selected in stage 1 (e.g. whether the product and geographic market definition is intuitively reasonable in the case of market power indicators);

(c)   Third, further assessment of the remaining sectors against qualitative, bottom-up indicators.

17.47   Appendix 4 contains draft guidance for desk officers on how to carry out this stage 2 analysis. We recommend that the Commission revises this guidance to take account of its final decision on which stage 1 indicators to use and in light of future experience in carrying out stage 2 assessments.

18   CONSUMER COMPLAINT DATA

18.1   In this section we explore the possibility of using consumer complaint data both as a means of identifying the likely sources of consumer detriment in a particular market and as an indicator of the extent of consumer detriment where it exists.

18.2   Our primary aim of this analysis is to discuss the use that could be made of complaint data that already exist. To this end the discussion focuses on written complaints as these are the type that are most likely to be documented.

18.3   First, we examine the theoretical issues of what complaint options are open to consumers, what factors determine complaint behaviour, how complaint data relate to our concept of detriment, the strengths and limitations of using complaint data as an indicator and how complaint data might be adjusted to take account of these limitations. Next, we look at the practicalities of using complaint data as an indicator, including what EU-wide data are available and what data could be collected.

Theoretical Issues

Complaint options

18.4   There are three main complaint options open to consumers who are dissatisfied with a good or service, these are:

(a) Complaining directly to the supplier;

(b) Complaining to an Alternative Dispute Resolution (ADR) body; and

(c) Taking their complaint to court.

18.5   Usually (though not always) a consumer would be expected to complain first to the supplier and then to consider taking their complaint to an ADR body or Court if they were dissatisfied with the outcome of their complaint to the supplier.

Complain to the supplier

18.6   This could be done either directly, or through a body that helps consumers bring complaints to firms, such as a consumer action group or website.

18.7   Some of these bodies were set up specifically to handle consumer complaints, while others such as the consumer action pages of newspapers and magazines assist consumers in complaining as part of a wider remit. Some bodies will represent consumers in disputes with suppliers while others will just advise consumers on the options open to them.

18.8   European Consumer Centres can help consumers who live in one country and have a problem with goods or services bought from a trader in another European country. The

European Consumer Centres Network provides consumers with a wide range of services, from information on their rights to advice and assistance with their complaints and the resolution of disputes. There are currently European Consumer Centres in 22 of the 25 Member States.[236]

18.9 Whilst most complaint bodies do not charge a fee for handling complaints some of them do. Some organizations charge an upfront fee or operate on a "no win – no fee" basis taking a cut of any compensation payments. Occasionally such costs can be substantial, with there being instances of cases where all the money consumers gain being swallowed up by intermediaries.

Alternative Dispute Resolution

18.10 As an alternative to complaining directly to a supplier or if a consumer is still dissatisfied with the outcome after complaining to the supplier they may also have the opportunity to seek alternative dispute resolution. Alternative Dispute Resolution (ADR) bodies are non-judicial bodies in charge of settling consumer disputes and include arbitrators, ombudsman, arbitration and conciliation bodies.

18.11 Each ADR body varies in the type of complaint it handles, the powers it has and the procedures it uses. While ombudsman are typically free for complainants to use, other ADR methods such as mediation may involve charges.

18.12 Some ADR methods may only be available to consumers who have already complained directly to the supplier. For example, in the UK, an ombudsman will not normally consider a complaint unless the organisation, business or professional standards body concerned has first been given the opportunity to deal with it.

18.13 In some countries consumer bodies which do not resolve individual consumer complaints may be able to take action against firms prompted by consumer complaints about, for example, misleading consumer advertising. Consumer bodies may also be able to refer matters to other organisations such as regulators or government departments for investigation. Often in such cases there will be no individual redress available to the complainants, and a complainant might not need to have actually consumed the product or service in question.

18.14 Knowledge of and access to ADR bodies varies across sectors and Member States. Some sectors do not have ADR bodies that consumers can use.

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[236] Slovenia, Slovakia and Hungary currently do not have Consumer Centres.

18.15 The following figure shows the results of a Eurobarometre[237] survey where European citizens were asked if they had heard of bodies other than courts in charge of settling consumer disputes such as arbitrators, ombudsmen, arbitration or conciliation bodies.

Figure 18.1: Percentage of Population who had heard of Alternative Dispute Resolution Bodies
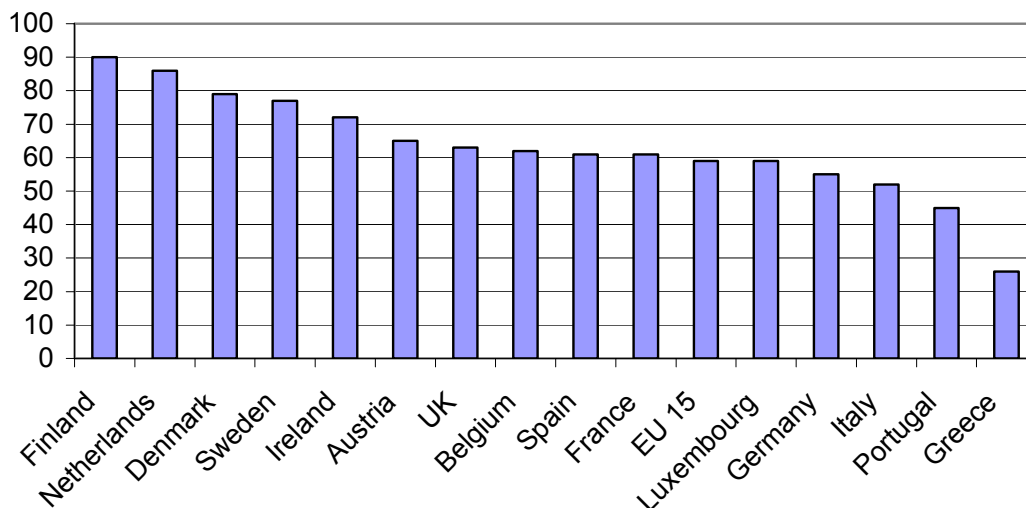
Court

18.16 Finally, a consumer might decide to take their complaint to court. Consumers may have the option of filing a complaint in a small claims court. These typically offer a low cost, quick and informal way of settling low value disputes, which does not require the services of expensive legal professionals.

18.17 In the UK the limit for claims is £5,000, except for personal injury and housing disrepair claims where the limit is up to £1,000.

18.18 Whilst some Member States have special procedures for dealing with small claims, which are available for both domestic and international disputes, this is not true for all Member States.

18.19 The European Commission has recently adopted a proposal for a regulation creating a European Small Claims Procedure (ESCP).[238] The ESCP would provide a procedure

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237 Eurobarometre report – European Union Citizens and Access to Justice.
238 COM (2005) 87 final, Brussels, 15.3.2005.

available in the courts of all Member States and specially designed to deal with cross-border cases, with common forms and simple enforcement across national boundaries.[239]

18.20   Unless the loss is very large taking a supplier to court when small claims procedures are unavailable is unusual due to the following factors:

(a) it can be a long time before a case comes to court and reaches settlement, especially if the dispute is complicated;

(b) a consumer might need to employ legal representatives, which may be expensive;

(c) if a consumer loses a case, they might face a large bill for the firm's legal costs as well as their own.

18.21   In a Eurobarometre survey,[240] EU consumers were asked what minimum amount would be necessary to make them take a problem with a product or service to court; 16 per cent of consumers said that they would never go to court whatever the amount, and 18 per cent would require the amount to be over €1,000. Only 7 per cent would be prepared to go to court for amounts of less than €100.

18.22   Due to the costs involved, it is extremely unlikely that a consumer would take a complaint to court without first having complained directly to the supplier.

18.23   In this analysis we focus primarily on the first two complaint options open to consumers, where complainants who are the consumers of a good or service complain to the supplier of the good or service or to an ADR body.

What determines complaint behaviour?

18.24   An important issue to consider when deciding how useful complaint data are as an indicator of consumer detriment is what it is that determines whether or not a consumer chooses to complain.

18.25   A survey by Warland et al (1975) found that 25 per cent of people who were very dissatisfied[241] with the way in which they had been treated as a consumer did not complain. Other studies such as Tax and Brown (1998) have suggested that this figure is even higher.

18.26   In the absence of coercion, a consumer's decision as to whether or not to complain depends on his perception of the costs and benefits of making a complaint. The costs and benefits of complaining can be both financial and psychological. Financial costs and

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[239]   House of Lords European Union Committee report, HL Paper 118: European Small Claims Procedure, Report with Evidence.
[240]   Eurobarometre report – European Union Citizens and Access to Justice.
[241]   The actual question asked was "Lately, have you gotten good and mad about the way you were treated as a consumer?"

benefits include foregone earnings and compensation. Psychological costs and benefits include stress and feeling "a sense of justice".

18.27 Different people perceive costs and benefits in different ways, for example, a confident person might expect the psychological costs of complaining to be lower than a nervous person.

18.28 Consumer complaint literature has identified a number of factors that affect a consumer's decision to complain. These include:

(a) Degree of dissatisfaction – in general the greater the degree of dissatisfaction the more likely a consumer is to complain.

(b) Importance of purchase – the more important the purchase the more likely a consumer is to complain.

(c) Opportunity to complain – the more opportunity a consumer has to complain the more likely they are to do so. Some suppliers may "encourage" consumer complaints, for example, by providing toll free phone lines or freepost addresses (perhaps because they see complaints as possible drivers of innovation). At the other extreme, in some cases consumers may think they do not have the right to complain.

(d) Knowledge of process – this is related to opportunity to complain. The greater a consumer's knowledge of the complaint process the more likely they are to complain. As mentioned earlier, a Eurobarometre survey[242] found that only 59 per cent of a sample of citizens of EU Member States had heard of Alternative Dispute Resolution bodies such as arbitrators, ombudsman etc. The percentage of respondents who had heard of these bodies rose as age increased up until the oldest age group (those aged 55 and above) when it fell. Men were proportionally more likely to have heard of ADR bodies than women (62 per cent compared to 57 per cent).

(e) Probability of complaint success – the greater the probability of a complaint being successful the more likely a consumer is to complain. Past experience of complaining might also have an effect here.

(f) Personal characteristics, e.g. age, gender, earnings, level of education – these affect who is likely to feel dissatisfied as well as which dissatisfied people are likely to complain. Warland et al (1975) identified the following characteristics of consumers who were likely to be dissatisfied and complain: better educated, on higher incomes, more frequently in higher social classes, more active in formal organisations and more politically committed and liberal. The dissatisfied consumers who did not

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[242] Eurobarometre report – European Union Citizens and Access to Justice.

complain were more likely to be less well-to-do, less-educated and did not engage as often in consumer and political actions than those who got upset and took action. A Eurobarometre survey found that men are more likely to make a complaint to a salesperson, retailer or service provider with the respective figures being 54 per cent (men) and 50 per cent (women) having made a complaint. The survey also found that the proportion of people having made a complaint is higher among the 40-54 age group (62 per cent) and increases with level of education.

(g) Situational influences – an intervening factor such as moving out of town or a family crisis may discourage consumers from complaining. Other people can also influence complaint behaviour either by encouraging consumers to voice complaints (e.g. obligation or altruism) or by deterring consumers from complaining (e.g. avoidance of embarrassment). Other people can affect complaint behaviour whether or not they are acquainted with the consumer suffering detriment, and whether or not they were present at the time of service failure (Yan and Lotz, 2004).

(h) Attribution of responsibility – consumers are more likely to complain to a supplier if they feel the supplier was at fault.

18.29 These factors may interact with each other to influence a consumer's perception of the costs and benefits of complaining. For example, personality factors may affect the degree of dissatisfaction a consumer feels as well as his attribution of responsibility, which may in turn affect a consumer's perception of how worthwhile it would be for him to complain.

18.30 Country specific factors may also affect a number of these factors. For example, differing levels of consumer protection in Member States may affect a consumer's perception of the likely success of their complaint.

18.31 The literature does not come to a consensus on the relative importance of the various factors in determining whether or not a dissatisfied consumer complains.

18.32 Davidow and Dacin (1997) carried out a survey of 154 marketing students in a large university where they asked respondents to think about a recent situation in which they were very dissatisfied and either complained or did not complain to the organization, and asked questions about the major reason why they did or did not complain. They then categorized the 267 reasons given for complaint behaviour into four categories:

(a) Personality related variables such as standing up for their rights, higher expectations, lazy, fear of confrontation (48.3 per cent of total responses);

(b) Traditional cost/benefit variables such as cost/importance, degree of satisfaction, effort and past experience (23.2 per cent of total responses);

(c) Situational variables (16.5 per cent of total responses) such as social pressure, mood and time;

(d) Social benefit variables such as thinking "can I make a difference to the way this organisation does business?" (12.0 per cent of total responses).

18.33 Davidow and Dacin suggest that while the literature primarily focuses on the role of traditional cost/benefit analyses as driving factors of consumers' decisions to complain, with moderating factors for personality and situational variables, that there are gains to be made from positing a more important role for complaint-related personality variables such as propensity to complain.

Complaint data as an indicator

18.34 Complaint data relate to the concept of personal detriment rather than structural detriment.

18.35 As complaints are initiated by consumers post-consumption and as consumers would presumably not choose to consume a good they expected to complain about,[243] complaints are likely to be a reflection of a consumer's unfulfilled expectations.

18.36 However, as explained earlier, a consumer's decision to complain is based on a consumer's expectation about the costs and benefits of complaining, whereas our definition of consumer detriment is negative outcomes for a consumer relative to his reasonable expectations concerning the consumption of a good or service. There may therefore not be a perfect link between consumer complaints and personal detriment.

18.37 Structural detriment relates to consumer loss due to market or regulatory failure, which in some cases the consumer may not be aware of (e.g. a consumer may not know that prices are above the competitive level due to market power). Complaint data would therefore not be suitable for using as an indicator of structural detriment.

18.38 We now discuss the strengths and limitations of using complaint data as an indicator of personal detriment.

1. Strengths

18.39 At first instance complaint data are useful in that they indicate the areas where consumers are dissatisfied with a particular good or service, and that presumably the good or service has not met their expectations.

18.40 The fact that consumers have been prompted into making a complaint may indicate that detriment (the gap between expectations and outcome) is above a certain threshold level, all other things being equal. This is potentially useful in that it could allow focus on more serious detriment. On the other hand, as discussed below, this is also a limitation as it could allow large scale low-level detriment to go undetected.

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[243] Although this might not always be the case.

18.41 As complaint data are based on actual behaviour rather than responses to survey questions they avoid a number of the problems of using survey responses, such as framing biases.

18.42 At a practical level, as complaint data are already held by certain bodies within different countries of the EU, it could allow a measure of consumer detriment to be made without the expense of designing surveys and/or additional data collection.

Potential uses of complaint data

18.43 The potential use that can be made of complaint data primarily depends on their level of detail. If data are sufficiently detailed it can provide information on:

(a) What harm has been suffered;

(b) The characteristics of those consumers who have suffered harm;

(c) Problem sectors;

(d) Types of transaction associated with problems;

(e) Changes in problems over time – and if combined with other information, how certain events affect consumer harm.

18.44 However, care would need to be taken in the interpretation of data. For example, higher level complaint data, e.g. from ADR bodies such as ombudsman could indicate instances of greater harm, or alternatively, where an individual firm's complaint resolution methods were inadequate for resolving complaints internally.

18.45 Where data are not initially sufficiently detailed for analysis there may also be the potential for collecting additional information from consumers. For example, the UK's OFT has used questionnaires to collect data on the type of consumers who make complaints.

Examples of investigations and policy changes resulting from consumer complaints

18.46 In the past there have been several instances of where complaints by consumers have led to investigations and policy changes which have benefited consumers. Examples include:

(a) In July 2005 the UK's telecommunications regulator Ofcom opened an investigation responding to concerns raised in consumer complaints about the cost of making inbound calls to bedside telephones in NHS hospitals.

(b) In December 2005 in the UK the government raised the cap on fines that ICSTIS, the premium rate services regulator, could levy against offending companies from £100,000 to £250,000. This was in response to a review following 80,000 consumer complaints received by ICSTIS.

2. Limitations

18.47   There are a number of limitations to the use of complaint data as an indicator of consumer detriment. These relate to the following points: the factors that determine whether a consumer complains do not accurately correlate to our definition of detriment; a lot of consumer harm does not result in a complaint; and complaint data typically do not contain sufficient detail for useful analysis.

Complaint data do not match perfectly to our definition of consumer detriment

Number of complaints affected by outcome

18.48   Rather than unfulfilled expectations about a product or service, a consumer's decision to complain is determined by his perception of the costs and benefits of complaining.

18.49   As the number of complaints received is likely to be affected by whether complaining is likely to lead to a favourable outcome for the consumer, a beneficial policy strengthening consumers' rights might have the perverse effect of leading to more complaints and appearing to make things worse when assessed against this indicator.

18.50   As well as how easy it is to complain and the likelihood of success, consumers are influenced by the level of compensation they could potentially receive. For example, several complaint procedures, including the Financial Ombudsman Service, in the UK seek to return consumers to the position they would have been in had the problem not occurred; going through such a procedure would be less attractive than one where there was potential for large compensation payouts.

Unreasonable complaints

18.51   A problem with using complaint data as an indicator of detriment is that not all complaints are justified.

18.52   Complaint data often do not provide any indication of the percentage of complaints upheld, even though differences can be substantial. For example, the UK's Financial Ombudsman for the financial year ending 31 March 2005 received 69,737 mortgage endowment complaints. Of the cases resolved by the Ombudsman in this period, 47.3 per cent were upheld in the consumer's favour.[244] In 2003 the UK's Advertising Standards Authority handled about 11,700 complaints in total while only about 1,800 of these were upheld (15 per cent).[245]

18.53   Although it is true that the fact a complaint is not upheld does not imply an absence of detriment, detriment is more likely to be present in complaints that are upheld (due to the

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[244]   House of Commons Hansard Written Answers for 1 December 2005.
[245]   OFT report: Empirical indicators for market investigations, September 2004, part 2, p54.

fact that our definition requires expectations to be reasonable). There is a risk that comparing complaint numbers between areas where different percentages of complaints are upheld could distort the perceived amount of detriment.

18.54 Complaint data from areas where only a small percentage of complaints are upheld by independent bodies should perhaps be treated with caution as they could be overstating the amount of detriment in that market.

18.55 Although some complainants may be opportunist in that they are led to complain about goods they are content with by the potential of redress, in general a complaint is likely to indicate where a consumer's expectations have not been met.

18.56 The converse of people complaining unreasonably perhaps due to overly high expectations are people who are not dissatisfied with a good or service (and hence do not complain) because their expectations are overly low.

Offsetting benefits to consumers

18.57 There are situations where complaint data might be more or less likely to reflect reasonable expectations. For example, there may be more complaints than usual in a sector where a new technology had recently been introduced, perhaps due to consumers not being able to work the new technology properly.

18.58 However, depending on what is understood by reasonable expectations, a certain amount of consumer teething problems might have been expected alongside the gains to consumers from the new technology.

Does the complaint process itself affect consumer detriment?

18.59 The adequacy of a firm's complaint process may be a contributing factor towards consumer detriment rather than or as well as an indicator of detriment. Often if a consumer brings a complaint and is unsuccessful they might be expected to be more dissatisfied with the outcome than if they had not complained at all (due to the wasted time and effort in bringing the complaint).

18.60 Gilly and Gelb (1982) examine the attitudes and behaviour of complaining consumers following organizational response to complaints. They suggest that a consumer's satisfaction/dissatisfaction with the complaint response combines with their previous satisfaction/dissatisfaction concerning the product to produce a final satisfaction/dissatisfaction with the total purchase outcome.

18.61 An outcome based approach to complaints would allow any redress obtained by the consumer to be taken into account. This would involve deducting any compensation from the detriment and adding in any additional costs incurred during the complaint procedure.

Not all consumer detriment is represented by complaint data

18.62   Even if consumer complaints did reflect personal detriment in the sense of our definition, there are several reasons why complaint data would not represent all the consumer detriment suffered.

Bias in who complains and how they complain

18.63   As well as there being a problem with not all detriment resulting in a complaint, the factors mentioned earlier that affect whether a dissatisfied consumer complains can also lead to biases in complaint data, resulting in complaint data not being a fair reflection of detriment suffered. One would expect the detriment of those that are less likely to complain such as the low earning and low educated in be underrepresented in complaint data.

18.64   As well as those factors identified above on what drives people to complain there is evidence that there may be country specific differences in complaint behaviour. A Eurobarometre report[246] contains information on the demographics of who complains. When asked if they had ever had to complain to a salesperson, retailer or service provider, 47 per cent of citizens of EU Member States gave a negative response. However, this figure varied from 70 per cent (Sweden) and 68 per cent (Luxemburg) to 31 per cent (Portugal) and 36 per cent (Belgium).

18.65   These country level differences in complaint behaviour could be due to differences in the psychological profiles of consumers (perhaps caused by cultural factors) or a reflection of differing amounts of detriment or other factors such as differences in consumer protection laws.

18.66   As mentioned earlier, there were also considerable variations in the responses of consumers in different countries when asked whether they had heard of Alternative Dispute Resolution bodies, ranging from 90 per cent answering positively in Finland to 26 per cent answering positively in Greece. These variations could be due to differences in awareness or differences in the actual existence of bodies. The variations would be expected to affect the numbers of complaints received because, as discussed earlier, knowledge of the process and opportunity to complain are both factors that affect a consumer's decision to complain.

18.67   Country specific differences in complaint behaviour are a particularly important factor for the Commission to consider. There is the danger that using complaint data as an indicator of detriment might create a bias towards policies which protect consumers in sectors in which there is a high level of complaints in countries where consumers had a general tendency to complain more.   Consumers in certain poorer Member States might

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[246]   European Union Citizens and Access to Justice.

experience problems in certain sectors which could not be picked up on if consumers in these countries had a generally lower propensity to complain.

Large-scale but low-level detriment

18.68　Consumers are more likely to complain about problems with high value goods. The amount of dissatisfaction is also an important factor affecting whether consumers complain. It is therefore possible that large amounts of low level or low value detriment may not be picked up by complaint data, although this detriment could sum to large amounts.

Problems resulting from the level of detail in typical complaint data

It does not provide a measure of detriment suffered per complaint

18.69　A major problem with using complaint data as a measure of consumer detriment is that of relating a complaint to a particular value of detriment. Generally, collated complaint data provide no measure of the value lost to the consumer or any other indication of the significance of complaints made.

18.70　Although complaint data from ADR bodies may indicate higher levels of detriment (in that consumers have presumably gone to greater lengths to pursue them) they may equally well indicate failings in suppliers' own complaint processes.

18.71　Estimating the value of detriment represented by a complaint is extremely difficult. The value of the good cannot be used as a reliable proxy for the value of detriment, because in some cases the magnitude of detriment could exceed the purchase price, particularly if there are consequential losses. For example, e.g. a complaint involving insurance could involve a loss much greater than the amount paid for the service.

18.72　There are also some more general complaints – for example, complaints to the Advertising Standard's Authority which if upheld could be considered to reflect detriment to a large number of consumers and not just the consumer who had made the complaint.

It does not provide information on the number of transactions

18.73　Often complaint data make no mention of the number of transactions in a sector. The number of transactions (i.e. number of potential complaints) per complaint is an important factor when comparing the relative frequency of the occurrence of detriment in sectors.

It does not provide information on the different complaint routes open to consumers

18.74　A large number of bodies that a consumer could potentially complain to could, if only one route was considered, have the effect of making detriment in a particular sector seem less than it actually was. On the other hand, summing the number of complaints to each body may end up overestimating detriment (in comparison to other sectors or countries) because these consumers would have had increased opportunities to complain.

Adjustment for limitations in the data

18.75   There are a number of ways in which complaint data could be adjusted to create a better indicator of consumer detriment.

18.76   If information could be obtained on the percentage of consumers suffering detriment who complain, the detriment suffered by non-complainants could be estimated. However, the problem would still remain that the complaints of those that do complain may not be representative of the dissatisfaction of those who do not complain, i.e. the two groups may be dissatisfied about different things or be dissatisfied to different extents.

18.77   It might be possible to run an in-depth survey to try to work out how the different factors which influence whether consumers suffering detriment complain affect the numbers of consumer complaints in different sectors and across different countries. This may allow the construction of parameters by which complaint data could be adjusted in order to create estimates of the total consumer detriment in a sector.

18.78   As discussed in section 3, the OFT in the UK carried out a survey[247] in which consumers were asked about problems (which may or may not have led to complaints) they had experienced in the previous 12 months. From this information the total number of consumer complaints and concerns in the UK annually was estimated to be 85.8 million. A survey of this nature could be used to "scale up" complaint data to give better estimates of detriment suffered.

18.79   In some instances complaint data might need to be adjusted downwards to take account of unreasonable complaints.

18.80   It might be possible to use focus groups to estimate an average financial value of the detriment associated with a typical complaint in a sector (although a recent study for the UK's OFT found that focus group participants had difficulty in attaching financial values to the psychological distress associated with consumer detriment).

Data Availability

18.81   . One of the problems with using complaint data as an indicator is that in several cases no record will have been kept of complaints, particularly complaints made to individual suppliers. Given the number of suppliers in the economy, collecting such data would not be feasible. Therefore, any complaint data based indicator of consumer detriment would need to focus on higher level data, such as complaints made to ADR bodies or taken to court.

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[247]   Consumer Detriment, February 2000, OFT 296.

18.82   We first consider what existing EU-wide data on complaints is available, both in terms of ongoing complaint data and one-off surveys conducted in the past. We then review some of the national data sources which are available if the Commission wishes to gather complaint data from national sources.

Ongoing EU-wide complaint data

18.83   The European Consumer Centres Network (ECC-Net), which is based in the EC's DG SANCO, compiles information on complaints and enquiries about cross-border or Europe-wide issues.[248] The ECC-Net has offices in most Member States, and by 2007 will have offices in all 25 Member States, as well as in Norway and Iceland. Each office collects and reports data in a standardised format.

18.84   We understand that DG SANCO's Enforcement and Consumer Redress Unit is introducing reforms to the running of ECC-NET offices, which include recording the sector involved with a finer set of classifications, recording the type of problem with finer classifications, and making the recording more consistent across offices.

18.85   However, in our view DG SANCO should not base its monitoring of complaints entirely on the data published by ECC-Net, for a number of reasons. First, and most importantly, we understand that the data focuses on cross-border problems, which may not be representative of consumer problems more widely. Second, the total number of complaints is small for EU-wide data, with only 20,052 complaints recorded in 2005. Third, the amount of data collected in each country also varies very widely: for example, in 2005 Austria collected five times as many complaints as Germany. Finally, the use of categories varies widely: in 2005 Luxembourg used 24 of the available categories, whereas Sweden used only six, despite each country having about the same number of cases.

18.86   Hence, we suggest that this source of complaint data is more suitable for keeping track of cross-border problems suffered by consumers, rather than monitoring consumer detriment more broadly.

One-off surveys with EU-wide data

18.87   Below we review a number of past surveys which contain EU-wide data on consumer problems or complaints.

Special Eurobarometre report – European Union Citizens and Access to Justice (2004)

18.88   This is a survey carried out by DG Press and Communication at the request of DG Health and Consumer Protection. The report contains results of a public opinion survey carried out in the (then) 15 Member States in September 2003.

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[248]   http://ec.europa.eu/consumers/redress/ecc_network/index_en.htm

18.89   The report contains data on:

(a)   What percentage of people in the EU-15 have complained to a salesperson, retailer or service provider (aggregated data);

(b)   How these complaints are made, i.e. in person, over the phone or by fax/mail (aggregated data, men and women separate, plus a few individual country results);

(c)   Whether consumers had heard of, would be prepared to resort to, or had fears about alternative dispute resolution bodies (individual country data);

(d)   What percentage of EU consumers had problems with purchased products or services in the last 5 years that could not be settled amicably (aggregated data, men and women separate, plus a few individual country results);

(e)   The types of products or services that led to problems (aggregated data); solutions reached (aggregated data plus a few individual country results);

(f)   The minimum amount that would make the consumer take a problem to court (individual country data with banded amounts);

(g)   Other data, including data on reasons for not going to court; whether consumers were insured to take matters to court;

(h)   Who citizens trusted to defend them in court;

(i)   Dispute settlement for cross-border purchases.

Figure 18.2: Percentage of EU-15 who had ever had to Complain to a Salesman, Retailer or Service Provider
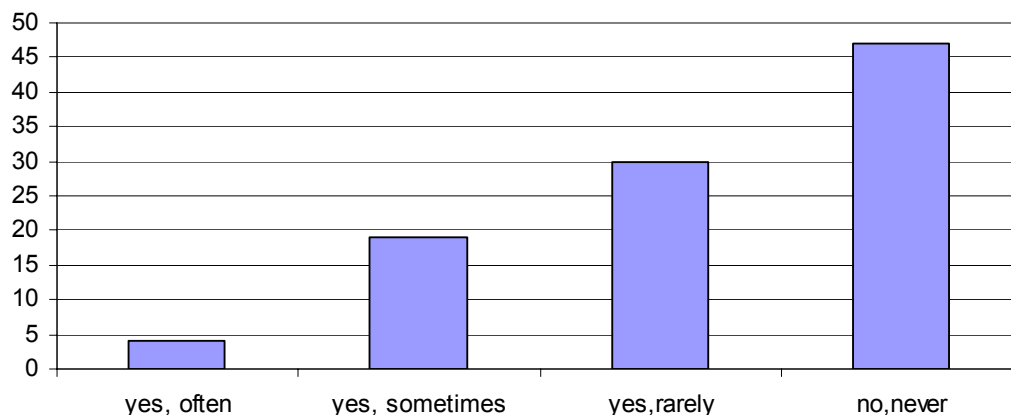
Source: Special Eurobarometre – European Union Citizens and Access to Justice

Special Eurobarometre report – Services of General Interest (2005)

18.90   This is a survey in 2004 carried out on citizens of 25 Member States dealing with eight services of general interest: mobile telephone services; fixed telephone services; electricity supply services; gas supply services; water supply services; postal services; transport services within towns/cities; rail services between towns/cities.

18.91   Part of the report analyses consumer relations (customer service and handling of complaints).   The report includes country data on whether consumers have made complaints in the last 12 months about each service and how well the complaint was handled.

Figure 18.3: Percentage of EU-25 Users who had Personally made a Complaint about a Particular Service in the Previous 12 Months
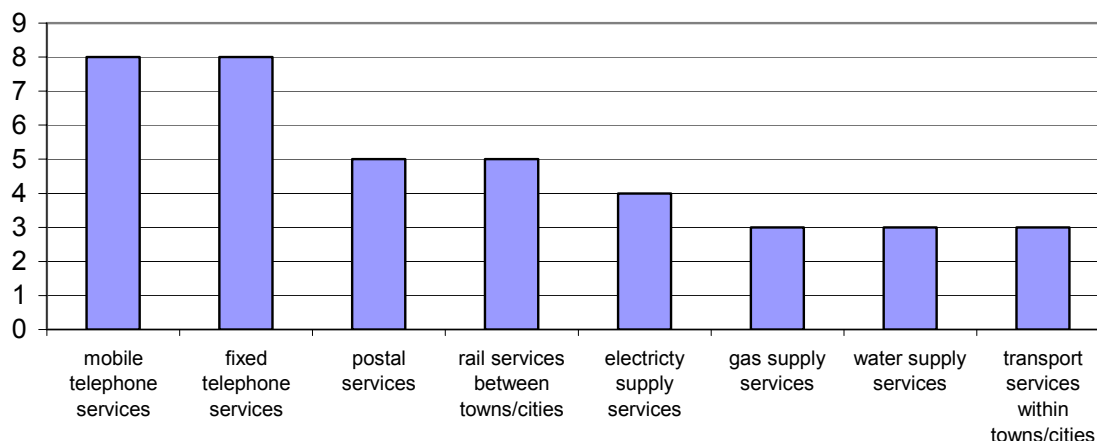
Source: Special Eurobarometre report – Services of General Interest

Consumers in Europe Facts and Figures data 1999-2004, 2005 edition, European Commission (2005)

18.92 This report includes data on consumption patterns, including expenditure and prices, and on consumer attitudes and quality indicators in the European Union, as well as some details of European policy initiatives. Coverage is variable, with data often only available for the EU-15. It includes complaint data taken from the two Eurobarometre reports discussed above.

European Consumers and Services of General Interest, qualitative study in the 15 Member States and the 10 Future Member States acceding to the European Union in 2004 (2003)

18.93 This is a qualitative study on European consumers and services of general interest in the (then) 15 Member States and the 10 future Members States due to join the EU in 2004. The report was by OPTEM requested by DG Health and Consumer Protection. The services included in the study were: electricity supply; gas supply; water supply; fixed telephone services; mobile telephone services; postal services; intercity rail transport; regional transport; urban transport; air transport; and maritime transport.

18.94 The report contains aggregated information on the numbers of citizens (e.g. number out of 10) who had made complaints in each service area, and how satisfactorily these complaints were handled.

Report from the Commission to the Council and the European Parliament on consumer complaints in respect of distance selling and comparative advertising (2000)

18.95   The annex of this report contains data on number of complaints and main areas of complaint in respect of distance selling contracts for Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, Luxemburg, The Netherlands, Spain and Sweden.

National data sources

18.96   Due to the current lack of EU-wide data on consumer complaints, it would probably be necessary for the Commission to collect its own data or aggregate data from national sources in order to keep track of consumer complaints.

18.97   As discussed above, due to the non-feasibility of collecting data from individual suppliers, any data collected would probably need to be from public bodies which deal with consumer complaints or from consumer bodies. Consideration would need to be given to the issue of the comparability of data from each Member State.

18.98   We have investigated the potential sources of complaint data in each Member State. The results of this research are summarised in Table 18.1. Further summary details on each organisation are provided in appendix 3. The list is not intended to be exhaustive, and there are probably other organisations with complaint data not included in this table.

Table 18.1: National Organisations Dealing with Consumer Complaints

Country	Consumer body	Deals with complaints? (if known)	Collects complaint data? (if known)	Website address
Austria	Association for consumer protection	-	-	http://www.konsument.at
Belgium	Council of Consumption	-	-	http://mineco.fgov.be/protection_consumer/councils/consumption/council_fr_01.htm
Cyprus	Cyprus Consumers Association	Yes	Yes	http://www.cyprusconsumers.org.cy
Czech Republic	Czech Consumer Association	Yes	Yes	http://www.regio.cz
Denmark	Danish Consumer Council	-	-	http://www.fbr.dk
Estonia	Estonian Consumers Union (ECU)	-	-	www.tarbijakaitse.ee
Estonia	Estonian Consumer Protection Board	Yes		http://www.tka.riik.ee/
Finland	Finnish Consumer Agency and Consumer Ombudsman	Yes	-	http://www.kuluttajavirasto.fi

Finland	Finnish Consumers Association	-	-	http://www.kuluttajaliitto.fi
France	Organisation generale des consommateurs	Yes	-	http://www.orgeco.net/
Germany	Federation of German Consumer Organisations – VZBV	-	-	http://www.vzbv.de
Greece	INKA/ General consumers federation of Greece	Yes	-	http://62.192.64.71/
Hungary	General Inspectorate for consumer protection (GICP)	-	-	http://www.fvf.hu
Ireland	Consumer Association of Ireland (CAI)	Yes	Yes	http://www.consumerassociation.ie
Italy	ADICONSUM	Yes	-	http://www.adiconsum.it/
Latvia	Latvian Consumers Protection Association	Yes	-	http://www.pateretaja-celvedis.lv
Lithuania	National Consumer Rights Protection Board	Yes	Yes	http://www.nvtat.lt
Luxemburg	Union Luxembourgeoise des consommateurs	Yes	-	http://www.ulc.lu
Malta	Consumers Association Malta	Yes	-	http://www.camalta.org
Netherlands	Consumentenbond	-	-	http://www.consumentenbond.nl
Poland	Polish Consumer Federation	Yes	Yes	http://www.federacja-konsumentow.org.pl
Portugal	Portuguese Consumer Association (DECO)	-	-	http://www.deco.proteste.pt/
Slovak Republic	Association of Slovak Consumers	-	-	www.isnet.sk/zss
Slovenia	Slovenia Consumers Association	Yes	-	http://www.zps-zveza.si
Slovenia	Consumer Protection Office of the Republic of Slovenia	Yes	Yes	http://www.uvp.gov.si
Spain	Instituto Nacional de consumo	Yes	-	http://www.consumo-inc.es
Sweden	Swedish National Board for Consumer Complaints	Yes	Yes	http://www.arn.se
Sweden	Consumer Agency	-	Yes	http://www.konsumentverket.se/
UK	Consumer Direct	Yes	Yes	http://www.consumerdirect.gov.uk/
UK	Financial Ombudsman Service	Yes	Yes	http://www.financial-ombudsman.org.uk/

18.99 Some **examples** of the complaint data currently available on the websites of organisations in particular Member States are discussed below. (Data from Consumer Direct is considered in section 24 as part of the pilot testing stage of the project, and hence is not discussed below.)

Poland: Consumer Federation

18.100 The Consumer Federation is an independent organization whose main aim is the protection of individual consumers in Poland. It operates across the whole country via a network of 49 local advice offices which provide free legal advice to consumers.

18.101 The Federation collects data, including on the service or product which the consumer complained about and the type of advice and help given to the consumer.

18.102 The following table gives details on the type of advice and help given by the Federation in 2002 in cases which related to sales.

Table 18.2: Help and Advice given by the Polish Consumer Federation

	Mobiles	Computers, TV equipment	Household appliances	Shoes	Others
Interventions in writing on behalf of consumers	347	457	446	2,472	1,164
Written advice	154	280	211	1,080	937
Direct advice	1,688	3,108	2,751	12,635	7,083
Advice and interventions on the phone	3,039	5,450	5,419	15,853	13,684
Statements of claims prepared	7	50	19	347	139
Cases brought before Arbitrary Consumer Court	23	84	75	814	166

Source: Consumer Federation website http://www.federacja-konsumentow.org.pl

18.103 One problem with data from this source is the difficulty of identifying which consumers contacting the Federation were making actual complaints and which were merely seeking advice.

Czech Republic: Czech Consumer Association

18.104 The Czech Consumers Association (CCA) is a member of and cooperates with the Association for extrajudicial settlement of consumer complaints – Spor. Spor is an independent association of legal entities which provide alternative dispute resolution services.

18.105 The CCA website includes a "case archive" of past complaints. The archived cases may be searched according to: product/service (8 categories); reason for complaint claim; aspiration (e.g. product replacement, cancellation of sale); and language (Czech or English). Detailed descriptions of individual complaints are given which include the specifics of the case and the final verdict.

18.106 Unless the complaint information from this source is also available in summarised form it would be extremely time consuming to analyse.

UK: Financial Ombudsman Service

18.107 The UK's Financial Ombudsman Service (FOS) is an alternative dispute resolution body which deals with complaints from consumers against firms in the financial services sector.

18.108 The FOS website contains detailed data on the complaints received each year. Data is broken down into 4 complaint type categories (mortgage endowment cases; other investment-related cases; banking-related cases; insurance-related cases). Cases are broken down further by financial product. The website also contains demographic data on the types of people who use the ombudsman service.

18.109 The following table contains information on the types of complaints received in 2005.

Table 18.3: New Cases by Type of Complaint in 2005

Complaint type	Number of complaints
Mortgage endowment cases	69,737
Other investment-related case	19,251
Banking-related cases	10,491
Insurance-related cases	11,484
Total new cases	110,963

Source: FOS website, http://www.financial-ombudsman.org.uk

18.110 The following table shows the ages of people using the ombudsman service.

Table 18.4: Ages of consumers complaining to the Ombudsman

Age	Percentage
younger than 24	1
25-34	5
35-44	24
45-54	29
55-64	27
65 and older	14

Source: FOS website, http://www.financial-ombudsman.org.uk

Sweden: National Board for Consumer Complaints

18.111 Sweden's National Board for Consumer Complaints (ARN) is a public body which resolves consumer complaints as an alternative to court. The Board collects data on the cases dealt with. The Board has 13 departments which each deal with different areas. The following table contains information on the number of complaints dealt with by each department from 2003 to 2005.

Table 18.5: Cases Dealt with by Sweden's National Board for Consumer Complaints

Department	2003	2004	2005
General[249]	815	831	794
Banking	439	504	421
Housing	1,065	1,009	1,076
Boating	75	65	61
Electronics	2,120	1,526	1,553
Estate agents	76	97	75
Insurance	879	881	876
Motor vehicle	1,453	1,655	1,582
Furniture	347	313	318
Travel	934	969	1,323
Shoes	183	174	155
Textiles	296	252	199
Cleaning services	199	171	188
Total	8,881	8,447	8,621

Source: ARN website, http://www.arn.se (translated from Swedish)

Problems with aggregation of national data

18.112 Our research on national data sources has highlighted a number of difficulties which may arise when trying to aggregate complaint data from different Member States. These include:

(a) Complaint data may not exist – there may be sectors within Member States where no record of consumer complaints is currently kept.

(b) Several bodies collecting data – not all Member States have central bodies dealing with consumer complaints. In some Member States different bodies might deal with different complaint areas, and there also may be more than one body dealing with complaints in the same area. For example, in the UK both the Financial Ombudsman and Consumer Direct deal with consumer complaints concerning financial services. The absence of a central complaint body makes aggregation difficult.

(c) Different classification systems – where it is collected, data may not be classified in the same way (e.g. complaints may be grouped into different sector categories). This will lead to aggregation problems.

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[249] This department deals with goods and services not belonging to another department, e.g. sporting goods, timepieces, optics, removal assignments.

(d) Some bodies mix complaints and advice – some bodies which collect data may not be wholly concerned with dealing with complaints and instead might also offer consumers advice. It may be difficult therefore to identify how many consumers were actually making a complaint and how many were seeking advice. Whether or not a body offers advice may also affect the number of complaints made, as some consumers may change their mind about making a complaint after receiving advice.

Commission initiative

18.113 For the reasons described earlier, it would currently be difficult for the Commission to aggregate complaint data from individual Member States.   However, it might still be worthwhile collecting such data (even if it cannot then be aggregated), to identify whether there are any common patterns in complaint data across the EU.

18.114 In the longer term, the Commission could consider an initiative to encourage Member States to collect harmonised data on consumer complaints.

18.115 In sectoral community legislation, consumers' rights to have their complaints dealt with are already documented at a level which preserves national subsidiary in the treatment of consumers.   Where there are remaining deficiencies in the treatment of consumer complaints at national level, there may be scope for community action to enforce the community acquis.

18.116 To encourage individual Member States to collect data on consumer complaints the Commission could issue a communication specifying what it regards as appropriate treatment of complaints. (A communication is not binding but provides guidance on the interpretation of the community framework.)

18.117 In the communication the Commission could ask that complaints are collected by a central body in each Member State and are categorised using common classifications. This would make aggregation easier.

18.118 Alternatively, the Commission could work on a more informal basis with organisations in individual Member States to achieve similar objectives (e.g. by organising a voluntary data-sharing initiative).

19 INDICATORS ARISING FROM PSYCHOLOGY AND MARKETING ANALYSIS

19.1 We would like to acknowledge that the material in this sub-section was written by Professor Lunt, with some editing by Europe Economics.

19.2 The terms of reference for the project and the structure of this report draw a distinction between *estimates* of personal detriment and market *indicators*. In the context of psychological detriment, this is helpful in managing the distinction between individual psychological phenomena and more social or collective psychology.

19.3 The issues surrounding the measurement of personal detriment are reviewed above and here we will discuss two approaches to indicators – an extension of the survey methodology to be developed to measure personal detriment and an approach to developing indicators from the work of civil society consumer bodies.

19.4 Although some of these indicators (we will use the example of consumer sentiment here) are individual difference measures, many are aimed at either an idealised conception of the consumer or at aggregated responses. Many measures in psychology have this dual aspect, for example attitudes are taken to aggregate over individuals, but public opinion is focused on the collective dimension, attempting to measure something that emerges at the social level as the climate of opinion. Other indicators from consumer or from economic psychology (e.g. consumer detriment measures, consumer confidence, consumer satisfaction, subjective well-being) are attempts to grasp the "climate of opinion" at the collective level. The following discussion examines such variables as indicators of non-monetary detriment at the social level as an equivalent to market indicators in the economic sphere.

Measures of Consumer Sentiment

19.5 Surveys of consumer sentiment provide an example of collective psychology measurement. Originating in the work of George Katona there are now myriad market specific, national and cross-national surveys of consumer sentiment and consumer confidence.

19.6 Consumer sentiment measures are an indication of the general attitude of the public to the market and were first developed to index the sensitivity of attitudes to changes in the economy (interest rates/inflation) and are linked to the consumption/savings ratio. Measures include:

(a) Economic conditions and changes during the last six months

– Savings during the last six months

– Changes in household income

– Changes in prices

- Consumer spending on durables

(b) Current economic conditions

- Current financial position of the household

- Situation on the labour market

- Appropriateness of the current conditions for buying of the durables

(c) Expectations for the next six months

- Expected financial position

- Expected employment outlook

- Expected prices

- Spending plans for durables

(d) Other potential measures

- Consumer confidence

- Perceived fairness

- Consumer resistance to marketing

- Financial literacy surveys

- Trust in consumption

- Awareness of scams

- Subjective well-being/happiness

- Values[250]

19.7   After further consideration, we believe that consumer sentiment measures are not likely to be helpful in identifying *specific areas* where consumers are suffering problems, as they mostly relate to the overall position and attitude of consumers. Even as measures of overall consumer outcomes, most of them appear more suitable for use in macroeconomic analysis than in analysis of consumer protection issues. There may,

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[250] The World Values Survey demonstrates this approach to measuring collective psychological phenomena – see http://www.worldvaluessurvey.org/

however, be some exceptions in the last category shown above ("Other potential measures"), such as awareness of scams.

Civic Culture and Voice

Psychology and marketing concepts

19.8   The limitations of complaint data as a means of estimating detriment are dealt with elsewhere in this report. The discussion below develops a distinction in the marketing psychology literature between exit and voice. This distinction was introduced by Hirschman (1970) who argued that it is possible to distinguish two ways in which consumers give information to the market: in **exit** (without voice), consumers exercise choice by buying alternative products or moving to alternative suppliers. However, if consumers decide instead to voice their concerns about the product/service/firm rather than switching then that is the expression of **voice**.

19.9   As Dowding et al (2000) argue these are theoretical distinctions that are very difficult to tease out empirically – but the distinction is analytically valuable and is relevant to the distinction between the consumer and the citizen.

19.10   Here it is worth noting that in a culture where exit dominates over voice (choice over public expression) then the previous arguments that we have considered concerning the complexity of consumer choice becomes a critical issue – Hirschman's original ideas developed the idea that citizenship was increasingly identified with choice and that consumer action increasingly takes the form of exit. He was therefore concerned with issues relating to the role of civic culture in consumption.

19.11   The second civic culture effect identified by Hirschman (1970) is the suggestion that what he called "alert" consumers were also those who were potentially more likely to use voice to complain so that those with greater resources satisfy their dissatisfaction through exercising choice (exit), leaving behind those who can exercise neither exit nor voice.

19.12   Similar arguments apply in the relationship between vulnerability (which we know from the literature is linked to social economic status) and complaints: if we link these literatures then we can see that vulnerability leaves individuals at a disadvantage which is not compensated for by more proactive consumers and not voiced as a problem because those who express voice tend to exercise their right of exit without voice.

19.13   The theme of the reduction in the articulation of civic culture has been a topic of discussion within political theory and has been taken up in debates on social capital – the suggestion by Putnam is that individualisation is accompanied by a loss of social capital. Combining these arguments with those of Hirschman (1970) in the sphere of consumption indicates that the increasing cultural focus on an individualised consumer culture is associated with reduced engagement with civil society and political culture.

Campaigns by consumer representative bodies

19.14   As mentioned briefly in section 17, one solution is to look at the campaigns mounted by consumer representative bodies as illustrative of consumer detriment, to complement monitoring complaints (which are subject to a variety of biases) and conducting consumer surveys.   The benefit of examining consumer campaigns is that they are an active engagement with consumer interests aimed at policy concerns rather than being dependent on activism or voice from consumers. There are of course issues of concern in that consumer representative bodies have campaigning agendas, but here the position taken is that these forms of association in civil society and quasi government agencies (e.g. the National Consumer Council in the UK) work to express public opinion in a way that distils and finesses public opinion through engagement with a diversity of public debates.

19.15   The rationale for analysing the campaigns of consumer representative bodies is that their role as civil society bodies distils public discourses and translates these into the terms of consumer policy debates, thereby creating a bridge between everyday life and the policy context. Civil society bodies provide a translation of public opinion oriented towards the policy community and express the most pressing consumer concerns. In addition, the thematic structuring of consumer campaigns reflects the intelligence that such bodies receive through complaint handling, research and consultation with consumers. This material meets the criteria of identifying issues which are salient in public discourse, linked to potential consumer detriment, and relevant to the policy community.

19.16   This "civic voice" market indicator can also be seen as complementing data on the incidence of consumer detriment obtained from the survey. The survey focuses on consumers' actual experiences of detriment and their responses to suffering a problem with the consumption of a particular good or service. Here we look at a complementary method of documenting consumer concerns which are not directly related to a particular incident or complaint. Hence, our suggested methodology makes an important distinction between the **experience** of specific problems in consumption (as measured in the survey) and consumer **concerns** which reflect the broader potential for consumer detriment.

Content analysis methodology

19.17   The proposed methodology has two phases:

(a) *Stage 1* – Identification of websites of EU wide consumer organizations;

(b) *Stage 2* – Analysis of the content of campaigns. We suggest that it might be useful to use categorise the content of campaigns in a way which links with the categories proposed in our consumer survey.

19.18   These two steps are discussed below.

Stage 1 – Identification of EU wide consumer organizations

19.19   We would recommend that the Commission looks at the campaigns of both European and national consumer organisations. To assist the Commission in implementing this methodology, we have carried out research to identify some examples of relevant organisations and their websites, although we do not claim that this is a complete list.

19.20   An example of a relevant body at European level is the European Consumers' Organisation, whose website can be found at http://www.beuc.org/.   Their website includes a number of policy position papers. There is also a "Campaigns" page which (as of November 21st 2006) is still under construction.

19.21   Table 19.1 lists some examples of organisations representing consumers in different EU Member States, along with their websites.

19.22   DG SANCO has itself carried out a questionnaire to identify consumer associations in each Member State, and the responses can be found at http://ec.europa.eu/consumers/cons_org/associations/index_en.htm.

Table 19.1: Examples of Organisations which Represent Consumers

Country	Consumer body	Website address
Austria	Consumers Association of Austria	http://www.konsument.at
Belgium	Association Belge des Consommateurs – Test Achats	http://www.test-achats.be
Cyprus	Cyprus Consumers Association	http://www.cyprusconsumers.org.cy
Czech Republic	Consumers defence association of the Czech Republic (SOS)	http://www.consumers.cz
Denmark	Danish Consumer Council	http://www.fbr.dk
Estonia	-	-
Finland	Finnish Consumers Association	http://www.kuluttajaliitto.fi
France	Consommation logement et cadre de vie (CLCV)	http://www.clcv.org
Germany	Stiftung Warentest	http://www.stiftung-warentest.de
Greece	-	-
Hungary	National Association for consumer protection in Hungary	http://www.ofe.hu
Ireland	Consumer Association of Ireland Ltd	http://www.consumerassociation.ie
Italy	Altroconsumo	http://www.altroconsumo.it
Latvia	Latvian Consumers Protection Association	http://www.pateretaja-celvedis.lv
Lithuania	-	-
Luxemburg	-	-
Malta	Consumers Association Malta	http://www.camalta.org
Netherlands	Consumentenbond	http://www.consumentenbond.nl
Poland	Polish Consumer Federation	http://www.federacja-konsumentow.org.pl

Portugal	Deco proteste	http://www.deco.proteste.pt
Slovak Republic	-	-
Slovenia	Slovenia Consumers Association	http://www.zps-zveza.si
Spain	Facua	http://www.facua.org
Sweden	Swedish Consumers Association	http://www.sverigeskonsumentrad.se
UK	Which?	http://www.which.co.uk/
	National Consumer Federation ("The grassroots consumer watchdog")	http://www.nfcg.org.uk/

Stage 2 – Content analysis of consumer campaigns

19.23   The proposed **methodology** for mapping the consumer concerns articulated by civil society bodies is to develop a **content analysis** of the campaign priorities tagged by the variables identified in the **consumer survey**. The idea is that will provide a systematic way of categorising campaigns, and the data will be in a form which can easily be compared with the results of the survey.

19.24   We would emphasise, however, the benefits of carrying out the content analysis in a flexible manner, and not imposing the survey categories where it seems inappropriate to do so.

19.25   To illustrate how this mapping exercise might work, campaigns by consumer bodies could be categorising according to variables such as:

(a)   Region/country;

(b)   Type of problem;

(c)   Product category.

19.26   The following two tables illustrate the coding categories that might be used for type of problem and product category. They match the options available to respondents for some of the questions in our proposed consumer survey.

Codes for type of problem
Product quality or performance
Service quality or performance
Product or service unsafe or health hazard
Selling
Misinformed or misled about product or service
Price / cost
Poor customer service or after sales service
Something else

Codes for product category	
Group number	**Description**
1	Food and non-alcoholic beverages
2	Alcoholic beverages, tobacco
3	Clothing and footwear
4	Housing, water, electricity, gas and other fuels
5	Furnishings, household equipment and routine maintenance of the house
6	Health
7	Transport
8	Communication services
9	Recreation and culture
10	Education
11	Restaurants and hotels
12	Miscellaneous goods and services

Blogs: early warning of new developments of concern in public discourse

19.27   While the campaigns of consumer representative bodies are a distillation of public concern, they are constrained by the administrative and policy orientation of civil society bodies. As a result, they tend to reflect the risk analysis of these bodies and their assessments about policy priorities. Here we suggest a complement to this analysis of consumer campaigns.

19.28   An indication of "breaking" consumer issues that is relatively unconstrained by the need to rationalise public discourse and meet policy ends can, we suggest, be found in **web logs (blogs)**. The Shorter Oxford English Dictionary defines a web log (or blog) as follows:

> "A personal website, on which an individual or group of users record opinions, links to other sites, etc., on a regular basis"

19.29   The suggestion is not that blogs can deliver a representative view of consumer concerns, but that they can be used to provide **early indications** of emerging sources and kinds of

consumer detriment. This could usefully complement information from the campaigns of established consumer bodies and the experience-based data derived from the survey.

19.30   Web logs potentially give access to faster moving, breaking consumer issues. These are more likely to reflect the diversity of public discourse, and therefore involve a more rapidly changing and chaotic content. However, because of the diversity of origins and provenance of blogs, they are best approached as a way of identifying **new sources of consumer detriment**, which could then be added to the list of potential sources identified in the first phase of content analysis.

19.31   The methodology would be to **review periodically** the emergence of innovative consumer issues in web logs.

19.32   In the case of blogs, there is likely to be more rapid change in the list of websites to review than in the case of consumer organisations. Therefore, we would recommend searching for new blogs covering consumer issues each time this blog review is undertaken, as well as reviewing the relevance of the blogs used previously.

19.33   To illustrate the concept, here are two examples of blogs:

(a) Consumer World, which can be found at http://www.consumerworld.org/. This blog contains a large amount of information aimed at consumers, including a "consumer news and alerts" section which includes scam alerts.

(b) The Consumer Policy and Law blog, which can be found at http://pubcit.typepad.com/clpblog/. The blog states that its contributors "are a diverse group of lawyers and law professors who practice, teach, or write about consumer law and policy."

19.34   There are dedicated search engines which can be used to find relevant blogs, such as Google Blog Search at http://blogsearch.google.com/.

20 MARKET POWER INDICATORS

20.1 In section 17, we explained how (prior to pilot testing) our provisional suggestions on market monitoring included a set of six market power indicators (namely average C3 ratio, HHI, churn, market share volatility, shareholder returns and accounting profitability).

20.2 In this section, we discuss three some of the theoretical and practical issues surrounding these indicators. In particular, we discuss:

(a) The problem of market definition;

(b) Theoretical weaknesses in these indicators;

(c) Data availability.

The Problem of Market Definition

20.3 Most, if not all, indicators which seek to identify market power problems are likely to be sensitive to the definition of the market to which they are applied. For example, the market share of a manufacturer of colas will vary depending on whether the market is defined as cola-flavoured drinks, fizzy drinks, soft drinks, or non-alcoholic beverages.

20.4 The standard approach used to define a relevant market is to begin with a narrow market definition and consider whether a hypothetical monopolist could profitability increase prices by a small but significant amount (e.g. 5-10 per cent) for a non-transitory period (e.g. one year). This is referred to as the SSNIP test. If demand and supply side substitution would render such pricing unprofitable, then the products which act as substitutes are added to the definition of the market.[251]

20.5 In carrying out a market definition exercise, attention needs to be given to the geographical boundaries of the market as well as which products are included. In some markets competition may take place at a local or regional level, whereas in other cases the relevant geographical market may be national or international.

20.6 Carrying out a robust market definition exercise can be a resource-intensive and time-consuming process. In competition cases, where market definition is an important first stage of analysis, substantial resources are sometimes devoted to this issue. Indeed, it can sometimes be appropriate to commission specific pieces of research to shed light on the appropriate way to define a particular market (e.g. econometric exercises to examine whether certain products are substitutes).

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[251] Supply side substitution refers to firms which are already providing other products switching into the market in the short term, thus excluding new entry that would require significant investment.

20.7   This creates an obvious problem for any attempt to use indicators to monitor markets for possible problems arising from market power. On the one hand, investing substantial resources in defining each individual market before being able to use the indicators is impractical and would undermine their value in providing "early warning signals". On the other hand, indicators such as concentration measures may be meaningless if the "market" to which they are applied has not been correctly defined.

20.8   To our knowledge, no-one has attempted to produce a "map" of any economy which is sub-divided into (properly defined) relevant economic markets. Indeed, at a conceptual level, it would appear to be impossible to do this. For instance, there are situations in which product B is a substitute for product A but not vice-versa. In this case, the relevant market would be (A + B) if we begin the hypothetical monopolist test with product A, but product B on its own if we began the test with product B.

20.9   Nonetheless, there are existing statistical classifications for types of economic activity or product which are used in the collection and presentation of economic statistics. In particular, the Statistical Office of the European Communities (Eurostat) uses the following:

(a) NACE,[252] a classification of economic activities which is compulsory in all Member States.[253] The UK SIC classification used by NERA in its study (see section 17) is based exactly on NACE but with additional sub-classes of economic activity added in.

(b) CPA (Classification of Products by Activity), a product classification which relates directly to the classification structure in NACE, but with detailed lists of products under each economy activity.

(c) PRODCOM (from PRODucts of the European COMmunity), which is a list of some 4,800 products, developed by Eurostat, for which product data are required from all Member States. PRODCOM adds further sub-divisions to the CPA code structure, but only covers some of the sections of the NACE classification.

20.10   Table 20.1 illustrates how the CPA classification works. In the case of the example shown, the highest levels are defined much too widely to constitute relevant markets (for instance, there are many "food products and beverages" that are not substitutes), while the lowest levels are defined too narrowly (for example, "meat of sheep, fresh or chilled" is likely to be in competition with frozen lamb or other types of meat).

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[252] Nomenclature générale des activités économiques dans les Communautés européennes
[253] NACE Rev. 1 was made compulsory in all Member States by Council Regulation (EEC) No 3037/90, which was subsequently amended by Commission Regulation (EEC) No 761/93.

Table 20.1: How the CPA Classification Works

Level	Coding	Example	
Sections	letters A to Q	Manufactured products	D
Subsections	two-character alphabetical codes	Food products, beverages and tobacco	DA
Divisions	two-digit numerical code	Food products and beverages	15
Groups	three-digit numerical code	Meat and meat products	15.1
Classes	four-digit numerical code	Fresh and preserved meat, except poultry	15.11
Categories	five-digit numerical code	Meat and edible offal of bovine animals, swine, goats, horses, asses	15.11.1
Subcategories	six-digit numerical code	Meat of sheep, fresh or chilled	15.11.15

Note: The examples were taken from CPA 2002 (see http://forum.europa.eu.int/irc/dsis/nacecpacon/info/data/en/cpa_2002_en.doc)

20.11   One possibility, therefore, would be to use the NACE/CPA classification, perhaps at the four-digit level of disaggregation (in line with NERA's approach).

20.12   While this may be the only feasible way forward for calculating some types of indicator (e.g. concentration measures), three major criticisms can be made:

   (a)   Data that are available using this classification are likely to relate to production rather than consumption. This will tend to distort results in tradable sectors where an individual company's share of EU production could differ significantly from its share of sales to end-consumers within the EU.

   (b)   The product market is likely to be defined too narrowly in some cases and too broadly in others. This will mean that some sectors may be identified as potentially problematic (e.g. because concentration appears too high) simply because the market has been defined too narrowly. In other cases, markets in which there are genuine problems may be missed because the indicator has been calculated over too broad a sector of the economy.

   (c)   Likewise, the geographical market is likely to be defined too narrowly in some cases and too broadly in others. For example, if the indicators were calculated on an EU-wide basis, this would be too narrow for wider international markets, but too broad for markets in which competition takes place at a national or regional level.

20.13   With respect to the product market definition, it might in theory be possible for the Commission to produce an adjusted version of the NACE/CPA classification for the purpose of market monitoring. For example, this might involve combining 4-digit classes which appear likely to be part of the same market, or using more disaggregated data for those 4-digit classes which appear too broad to be relevant markets. In addition, classes which are eclectic or catch-all (e.g. "manufacture of goods not otherwise classified") or which are irrelevant because of the role that government plays in them (e.g. diplomatic services) could be deleted. However, the danger with such refinements is that they involve making subjective judgments which could prove to be wrong.

20.14 With regard to the other two problems, it might be possible to collect top-down trade data which would shed light on how significant these issues were for any 4-digit class. For example:

(a) Data on imports into and exports from the EU might (if available) provide some indication of whether consumption data were likely to differ significantly from production data. It might also provide some indication as to whether or not the geographical market was wider than the EU.

(b) Data on the level of trade within the EU might (if available) provide some indication of whether or not the geographical market was narrower than the EU. For example, the absence of any trade between Member States in a particular 4-digit class might suggest that competition was taking place at a national or regional level.[254]

20.15 Overall, however, we believe that there are serious problems with using the NACE/CPA classification. On the one hand, the fact that a methodology has imperfections does not necessarily mean that is not useful at all, provided the results are interpreted cautiously. On the other hand, if the results of the exercise are completely spurious then the methodology could be worse than useless, both because it would absorb resources and because of the risk that it might distort the Commission's policy-making priorities.

20.16 Nonetheless, we see no viable alternative (apart from giving up) to using the NACE/CPA classification for some types of market monitoring indicator. We have tested market power indicators using the NACE classification as part of our pilot testing work (see section 20).

Theoretical Weaknesses

20.17 In addition to the problem of market definition, there are a number of other theoretical weaknesses in the market power indicators. We discuss some of these briefly in this sub-section.

20.18 Section 8 discussed weaknesses in using concentration as a measure of market power. For example, we noted that:

(a) High concentration and high profits could go together because efficient firms have been successful in winning market share, rather than because they have exercised market power;

(b) Intense competition (e.g. on price) can sometimes exist even in highly concentrated industries;

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[254] There could be markets which cover only some Member States of the EU. For example, there might be separate markets for a product in "northern Europe" and in "southern Europe".

(c) Where markets are contestable, the threat of new entry can prevent the exercise of market power even if concentration is high.

20.19 We also discussed how market power can arise as a result of search costs and imperfect information on prices. Economic theory suggests that market power can arise from this source even when concentration is low.

20.20 Similarly, there are weaknesses in the indicators suggested for measuring barriers to entry and expansion (i.e. churn and market share volatility). For example:

(a) Potential entry can constrain the exercise of market power, even if actual entry is low;

(b) Low volatility in market shares is compatible with a competitive market (e.g. if market conditions are stable);

(c) High volatility in market shares could occur even if market power was present (e.g. if firms collude on price and experience different demand shocks).

20.21 As mentioned in section 17, the existence of high profitability in an industry cannot *on its own* be taken as an indication that firms are exercising market power. For example:

(a) High profits may simply reflect the fact that investors in an industry are exposed to high systematic risks;

(b) In free markets, temporary high profits play an important role in encouraging new entry into an industry;

(c) Individual firms may earn high profits as a result of successful innovation or efficient management;

(d) High profits may represent successful outcomes to investments which *ex ante* were uncertain and which had a corresponding downside risk.

20.22 On the other hand, there may be instances in which market power is being abused or competition is being distorted, without firms earning high profits. For instance:

(a) In cases of predation, both the predating firm and the firm being targeting by this conduct will earn lower profits in the short run;

(b) National governments could distort competition by granting illegal State Aid in industries where profits are low.

20.23 Clearly, given these weaknesses the results obtained from these market power indicators should be treated with caution. In particular, there will be:

(a) Instances of consumer detriment due to market power which are not picked up by these indicators; and conversely

(b) Sectors which are identified by these indicators as potentially problematic, but which prove (on closer inspection) not to be so.

20.24 However, we do not wish to suggest that market power indicators have no value at all. While there are likely to be many exceptions, nonetheless it seems reasonable to suggest that, in general, market power is *more likely* to be present in industries which are more concentrated *AND* which show less entry/exit or volatility *AND* where profits are high.

20.25 Hence, the conclusion to draw from these weaknesses is not (necessarily) that the exercise should be abandoned, but rather that the Commission needs to apply strong caveats to any results.

Data Availability

20.26 In this sub-section, we first review a number of different sources of data which could potentially be used to calculate these indicators. Based on this review, we go on to give recommendations as to which data source might be used for each indicator. Finally, we discuss the sectoral classification system used by each data source.

20.27 This discussion identifies a number of further weaknesses in the market power indicators associated with imperfect data. This reinforces our view that market power indicators need to be treated with caution.

Data sources

20.28 We have evaluated five sources of data for the market power indicators:

(a) Eurostat;

(b) Member country statistical agencies;

(c) Databases of European companies;

(d) Consumer product market-share databases;

(e) Equity indices for European industrial sectors.

Eurostat

20.29 Eurostat, the statistical office of the European Communities, collects a wide range of industrial data. We are aware of two data sets which provide data which are potentially useful for our purposes:

(a) SBS, the database of Structural Business Statistics; and

(b) COMEXT, the database of European trade statistics.

20.30   The SBS database contains annual data on aggregate input, output and business demography for each EU Member State.[255]

20.31   One of our indicators, "industry churn," can be calculated from the SBS database, since the "business demography" section of the database records the number of company births and deaths, as well as the total number of companies active in a sector.[256]

20.32   Unfortunately, industry concentration cannot be calculated from the data collected in SBS because Member States do not submit to Eurostat details of the distribution of market share among the firms in an industry. The relevant data only describe the total production and the total number of firms in an industry. SBS records the number of firms in each size class of an industry, but this is not sufficient to calculate an approximation of concentration because the size classes are very broad and size is measured in terms of number of employees.

20.33   The total production value that SBS records for each industry may be useful for calibrating other data sources.

20.34   The SBS database covers most but not all of the economic activity in the EU. The industries covered by NACE Rev. 1.1 classifications C to K are included, which covers most commercial activity, but leaves out primary production and government expenditure. Various other qualifications about data coverage and accuracy are noted in the Eurostat documentation.

20.35   The SBS data is classified according to the NACE Rev. 1.1 scheme at the 4-digit level.

20.36   The COMEXT database records both intra-EU trade and extra-EU trade.[257] The intra-EU trade data can be used for identifying which markets should be treated as EU-wide rather than national, and the combined trade data can be used to identify sectors for which calculations based on gross production data may be distorted by significant imports or exports.

20.37   COMEXT uses the CN8 product classification system to record trade at the most detailed level, and publishes aggregations in various other categorisations (HS2, HS4, HS6, SITC, and BEC).[258]

Member State statistical agencies

20.38   Most Member States record more information than is sent to Eurostat, and some of this information may be useful in calculating our indicators. For example, both France's

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[255]   SBS documentation is available at: http://europa.eu.int/estatref/info/sdds/en/sbs/sbs_sm.htm
[256]   SBS Business Demography documentation is available at: http://europa.eu.int/estatref/info/sdds/en/sbs/bus_demo_sm.htm
[257]   COMEXT documentation is available at: http://europa.eu.int/estatref/info/sdds/en/ext/ext_sm.htm
[258]   These abbreviations stand for the following: SITC: Standard International Trade Classification Rev. 3; BEC: Broad Economic Categories; HS2, HS4, HS6: Harmonized Commodity Description and Coding System; CN8: Combined Nomenclature.

INSEE and the UK's ONS calculate industry concentration ratios for their own countries. However, differences remain: INSEE publishes C4 ratios using the NAF classification, whereas ONS publishes C3 ratios using the SIC classification.[259]

20.39   Hence, one option open to the Commission would be to encourage statistical agencies in Member States to provide such information for market monitoring purposes, preferably using a consistent approach to classification and calculation.

20.40   Problems that would need to be addressed would include:

(a)   Differences in classification schemes (e.g. NAF vs. SIC);

(b)   Differences in data collection (e.g. firm-level vs. plant-level data);

(c)   Differences in the indicators which have been calculated (e.g. C3 vs. C4), if the Commission were to rely on aggregated datasets;

(d)   Confidentiality of the disaggregated data, if the Commission were to request this.

20.41   The agency most competent to compile this data would probably be Eurostat, and hence we suggest that Eurostat could be approached to discuss the possibility of compiling industry concentration data from Member States. If it were possible to obtain robust data through this route, we would recommend using this data rather than relying on commercial databases of companies (discussed below and used in our pilot testing).

Databases of companies

20.42   A database of European companies can potentially provide data for estimates of all six of our market power indicators, although some of these estimates must be very approximate, due to the nature of the data collection.

20.43   Bureau van Dijk's Amadeus database would appear to be the most practical Europe-wide database for this purpose. The other databases which we have considered, such as [✂], appear to include only publicly listed firms, and we believe estimations of concentration which exclude all other firms would be unacceptably inaccurate.

20.44   The Amadeus database is a pan-European database (covering some non-EU countries as well as EU Member States) containing standardised data drawn from the statutory accounts submitted by companies. Bureau van Dijk describe the Amadeus database as follows:

> AMADEUS is a comprehensive, pan-European database containing financial information on approximately 8 million public and private companies in 38 European countries. It

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[259]   INSEE: http://www.alisse.insee.fr/SelectionMesureT1.jsp?item=CONDIS; ONS: NERA's 2004 report, p89.

combines data from over 35 specialist regional information providers (IPs). AMADEUS is a modular product; you can choose the level of coverage that you require - the top 250,000 companies, the top 1.5 million or all companies.

The AMADEUS database is exclusive to BvDEP and its information providers and is not available over any other platform. BvDEP identifies the best source of information in each country and applies strict inclusion criteria to prevent any bias in coverage. A standard company report includes: 23 balance sheet items, 25 profit and loss account items and 26 ratios, descriptive information including trade description and activity codes (NACE 1, NAICS or US SIC can be used across the database), ownership information which is researched by BvD's own team of consultants, Reuters' news, security and price information and links to an executive report with integral graphs plus a report comparing the financials of the company's default peer group. In addition to the existing ratios you can also create your own that you can display in the reports and also use in your searches and analyses.

20.45   However, this database has a number of drawbacks when used for our purposes (reflecting the unusual use being considered for the database):

(a) Amadeus records production, not consumption. Company shares in production may be very different from shares in consumption if there are significant imports or exports.

(b) Given the Amadeus sources its data from statutory accounts, it is our understanding that firms which do not have to publish such accounts (e.g. which in the UK would include sole traders and partnerships) are not included in the database. This could bias results in sectors where these types of company play a significant role.

(c) The database assigns one primary sector code to each company, and may list secondary activity codes alongside the primary code. However, we understand that there is no way of identifying from the database how company revenue breaks down between these codes, which means that there is little choice but to apply an arbitrary allocation in calculating our indicators (e.g. assigning all revenue to the primary code).

(d) When two companies with the same owner are active in the same market they should be treated, for the purposes of calculating concentration, as a single company. Amadeus does contain data on company ownership, but aggregating production by company owner introduces further complexity into the calculations.[260]

20.46   Amadeus contains classifications of its companies under multiple industry code systems including NACE, NAICS, SIC, and NAF.

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[260]   About 6 per cent of Amadeus' large companies report only consolidated accounts (Amadeus calls these C1 accounts), which introduces the further problem of double-counting the revenue of a subsidiary company in its parent company's accounts. It appears, however, that most companies classified as C1 are holding companies with almost no production activity of their own, so it may be possible to address this problem simply by ignoring their accounts.

20.47   We understand that Amadeus does not include records for financial institutions or insurance companies, because of the different formats in which these companies present their accounts.

20.48   Amadeus sells its database in three sizes, containing either the largest 250,000, the largest 1.5 million, or all 7 million recorded European companies.[261]   Clearly, measures such as concentration will tend to be more accurate if they are calculated using data on all companies.

Market share databases

20.49   Another source of concentration data would be a commercial database of market shares in consumer goods. We know of two companies which provide market share information which cover most EU Member States and which cover many consumer goods categories:

   (a)   Euromonitor's IMIS; and

   (b)   Datamonitor's "Interactive Consumer Database."

20.50   We understand that the markets which these databases cover account for only a proportion of total consumer spending. According to our estimates, this proportion may be around [✂] per cent.[262]   Also, we understand that these databases do not cover upstream markets, where market power can indirectly harm the interests of consumers purchasing end-products.

20.51   In relation to that proportion of spending which these databases do cover, they have many advantages over other data sources. For instance, the classification system they use appears closer to a proper definition of consumer markets than those of an industrial classification system.

20.52   We understand that market share data can be sorted by global ultimate owner in IMIS, thus eliminating problems with ownership found in a companies database. Also, not all of a company's revenue is assigned to a single market, thus potentially improving the accuracy of the indicators.

20.53   At the time of our research, Datamonitor's ICD database covered 162 consumer markets, which we understood was shortly to be expanded to 179. The coverage was within these broad categories: baby care, beverages, food, personal care, pet care, tobacco, and news and magazines. It appears that data are collected for all of the EU25 Member

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[261]   The two size thresholds between the three databases are set at, roughly, a turnover of 1.5 million euros and of 15 million euros. The exact criteria used for including companies in the smaller databases are available at: http://bvdweb.bvdep.com/coverageamadeus.html

[262]   This figure is calculated by comparing the coverage of [✂] to average EU25 consumer expenditure data taken from Eurostat's Household Budget Survey, 1999. The calculation ignores the revenues of intermediaries (wholesalers and retailers).

States except Cyprus, Estonia, Latvia, Lithuania, Luxembourg, and Malta; and that, in addition, one accession state (Romania) is included.

20.54   We understand that Euromonitor's IMIS database covers broadly the same set of goods as Datamonitor's ICD database, and that it also records market share at a finer level of subcategories.   In relation to geographical coverage, our understanding is that Euromonitor contains data for 14 of the EU25 Member States, as well as data for Bulgaria and Romania.[263]

Sector equity indices

20.55   An equity index tracks the movement in the average price of a set of stocks. Institutional investors often use equity indices to benchmark the performance of individual investments (e.g. comparing their investments in China to a representative index of Chinese equity performance).

20.56   We have investigated whether equity indices could provide data for the calculation of our "return to shareholders" indicator.

20.57   However, the theoretical robustness of using this type of data for our purposes is questionable. The price of a stock should be equal to the market's expectation of the net present value of the future stream of profits. Therefore an increase in the price of a stock can be taken as a signal of an increase in the market's expectation of future profits. However, it can be argued that if an industry has had market power continuously over a period of time, expected future profits from the exercise of market power will already be factored into share prices. Therefore, at best this type of data can only indicate *changes* in market power (e.g. the formation of a cartel could cause profits and hence equity prices to increase). However, it is difficult to use equity price data even for this purpose, given that there are many other influences on the share prices of firms.

Recommendations on data sources for each indicator

20.58   Our provisional recommendations of data sources for each indicator are summarised in Table 20.2. The table assumes that it is not possible to collect the relevant data from national statistical agencies, although if this were possible it might represent a superior option.

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[263]   Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Table 20.2: Provisional Recommendations on Data Source for Each Indicator

	C3	HHI	Market share volatility	Churn	Accounting return	Shareholder return
Eurostat SBS				✓		
Eurostat COMEXT						
Amadeus	✓	✓	✓	✓	✓	✓
Market share databases	✓		✓			
Sector equity indices						

C3 ratio

20.59 We have identified two data sources which can be used to estimate market concentration: a database of European companies, and a database of European consumer goods market shares.

20.60 A database of European consumer goods market shares is likely to provide accurate C3 ratios, but as already mentioned will only cover a proportion of consumer expenditure (perhaps as around [✂] per cent). This data does not use the NACE classification, and hence cannot easily be combined with other market power indicators. However, the Commission may wish to collect such data and consider it on a stand-alone basis, for those consumer markets which are covered.

20.61 A database of European companies suffers from the drawbacks already discussed, particularly relating to the use of production rather than consumption data,[264] and the difficulty in assigning revenues accurately to markets. An estimate of C3 can be calculated, but it is unclear how accurate the calculation will be.

Hirschman-Herfindahl Index (HHI)

20.62 Regarding the Amadeus database, many of the same considerations apply to the calculation of HHI as to the calculation of C3.

20.63 However, only in a very few markets can an HHI figure be reliably calculated from a database of market shares in consumer goods. This is because in most markets these databases list only the largest firms, usually between 3 and 10 firms. An HHI figure could be approximated using an assumption about the distribution of the unlisted firms, but then the HHI would carry little extra information over the C3 indicator, and so fail in its purpose of being an independent indicator of concentration.

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[264] This may lead to distortions due to imports and exports. One adjustment which might partially address this would be to add the total value of imports to the sum of producers' revenues when estimating total market size, thereby reducing the concentration ratio. However, there is not obviously any way of making an adjustment for exports, as there is no way of identifying which producers are responsible for the exports and hence no sound basis for either increasing or decreasing the estimate of concentration.

Market share volatility

20.64   A general problem when calculating market share volatility using data from databases such as Amadeus relates to discriminating between, on the one hand, a company merging with another or renaming itself, and on the other hand a company becoming inactive or bankrupt. We do not know of a systematic way of making this distinction in any of the relevant databases. One approach to dealing with this problem is to measure the volatility only of those companies which have had non-zero revenues throughout the period.

20.65   Another factor in measuring volatility is the choice of formula for aggregating the volatility of individual market shares into a measure of overall market volatility.

20.66   One measure would be the average year on year change in the market share of each firm, but this measure would be strongly dependent upon the number of firms with a consistently small market share (as a greater number of such firms would decrease the average).

20.67   Another measure is the average *relative* change in market share, i.e. the change in proportional market share, but this measure would also be strongly dependent upon what happens to very small firms.

20.68   The measure for volatility that NERA used was the coefficient of variation over time in the C3 measure of concentration. This choice was partly necessitated by the fact that NERA only had access to reliable information about market shares in the form of C3 and C5 indexes.   This metric is far from ideal because there are many plausible situations which it would incorrectly suggest that a sector has low volatility. For instance, the C3 index would record no volatility if:

   (a) Two companies exchanged the size of their market shares; or

   (b) Three largest firms experienced a significant reallocation of their market shares;

   (c) The fourth and smaller firms experienced a reallocation of their market shares.

20.69   Our provisional suggestion (prior to pilot testing) was to avoid all of these problems by measuring volatility as the sum of each company's percentage point change in market share, calculated using absolute values (i.e. treating both losses and gains as positive numbers).

20.70   A complication occurs when information about changes in market share is missing for some firms, either because of doubts about the validity of data (discussed above with respect to mergers, name changes, and imports) or because smaller firms do not have their shares recorded (as in databases of consumer goods). Our provisional suggestion was to normalise the measure by scaling up according to the proportion of the market for which there is data available. For example, if total volatility is 0.2 for half the market, then total volatility could be estimated at 0.4 for the entire market.

20.71   Amadeus' company revenue data can be used to calculate market share volatility, with the reservations already mentioned. The earliest data on company revenue appears to be from 1996.

20.72   Market share databases can be used to calculate market share volatility of the market participants listed (as mentioned). Euromonitor's IMIS appears to provide most of its market share data since 2001, and Datamonitor's earliest data appears to be for 2002.

Company churn

20.73   A market's churn, defined as the sum of firms entering and exiting the market divided by the total number of firms, can be taken as an indication of the extent of barriers to entry and exit.

20.74   Churn cannot be calculated from the market-share databases that we consider because they do not include all companies within a market, which means that entry and exit cannot be reliably estimated.

20.75   Eurostat's SBS database records entry and exit in industries broken down according to country and NACE code. Coverage, however, is uneven with respect to country, time, and classification. For example, the UK has data for about 200 separate categories, although as of August 2006 the most recent data was for 2003. At present no data is collected for Germany, and the data for France has been collected but is not publicly available.[265] Sixteen of the 25 EU Member States have data available for 2003.

20.76   Amadeus' database can be used to estimate churn, although some consideration needs to be given to the definition of company entry and exit. One method would be to treat a firm as active in a period if and only if it has non-zero revenue in that period, then a "company birth" is a firm active in this period but not active in the previous period, "company death" the opposite, and "total population" is the sum of companies active in this period. This method is vulnerable to over-estimating churn in the case of a merger, divestment, or change of company name.

Profitability measures

20.77   A company's accounting profitability can be used as an imperfect measure of its economic profit.

20.78   There are two drawbacks to this measure: first, the reporting of profits depends on accounting treatments, so the reported profits may mis-state economic profits for various reasons. Second, as discussed earlier, there are a number of reasons why high profits may not indicate market power.

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[265]   Documentation on the demography coverage in SBS are at http://europa.eu.int/estatref/info/sdds/en/sbs/bus_demo_base.htm, and specific notes about per-country coverage are at: http://europa.eu.int/estatref/info/sdds/en/sbs/bus_demo_countries.pdf

20.79   The Amadeus database records a variety of profitability measures, including:

   (a)   Profit margin;

   (b)   Return on shareholders' funds;

   (c)   Return on capital employed;

   (d)   Return on total assets;

   (e)   Gross margin;

   (f)   EBIT (Earnings Before Interest and Taxes) margin;

   (g)   EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) margin.

20.80   Return on Capital Employed (ROCE) appears a natural measure to use, as it gives the return on the capital that has been used in the business. Where it may not be so appropriate is for firms which have a small capital base, where it may be better to focus on a measure such as the profit margin on revenue.

20.81   We understand that Euromonitor's IMIS database records profitability for some firms, but only for a minority; and that Datamonitor's consumer goods database does not record profitability.

Returns to shareholders

20.82   As discussed earlier, our analysis casts doubt on whether equity price movements can be used to indicate market power. Hence, we do not recommend use of this data, and suggest that instead the focus should be on profitability measures of the type discussed above.

Market size

20.83   Data on market size is useful for calibrating indicators such as concentration. It can also be used for prioritising sectors, on the grounds that larger sectors may give rise to greater detriment when problems exist.

20.84   Market size is directly recorded in both of the databases of consumer goods market share that we consider.

20.85   Market size can also be estimated from Amadeus by adding the revenues of firms grouped by industry code, and from Eurostat by using production figures from the SBS database. Because both Eurostat's SBS and Amadeus record production instead of consumption, market size figures should be adjusted for the value of (net) imports, available from Eurostat's COMEXT database.

Trade intensity index

20.86   Some markets may be better considered as spanning multiple Member States, or the entire EU. To distinguish these markets we suggest a trade intensity index calculated as the proportion of imports and exports to total production, calculated at the level of the whole EU. If the trade intensity index exceeds a threshold value (see section 24), the market indicators could then be calculated at the level of the entire EU.

Market classification systems

20.87   Our suggested methodology for combining indicators requires that data be organised into a single classification scheme. Table 20.3 summarises the categorisations that each data source uses, and sets out our understanding of whether concordances already exist with the NACE system.

Table 20.3: Classification System Used by Different Data Sources

Indicator	Data Source	Classification System	Concordance with NACE (if needed)
C3 ratio	Amadeus Market Share database	NACE (among others) (custom)	- None available
HHI	Amadeus	NACE (among others)	-
Churn	Amadeus Eurostat SBS	NACE (among others) NACE	- -
Market Share Volatility	Amadeus Market Share database	NACE (among others) (custom)	- None available
Accounting Profit	Amadeus	NACE (among others)	-
Market Size	Amadeus Eurostat SBS	NACE (among others) NACE	- -
Imports and Exports	Eurostat COMEXT	Detailed data: CN8; Aggregated data: HS2, HS4, HS6, SITC, BEC	Available[266]

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[266]   Concordances to convert from HS6 to SITC to NACE are available at:
http://ec.europa.eu/comm/eurostat/ramon/relations/index.cfm?TargetUrl=LST_REL

21   INFORMATION DEFICIT INDICATORS

21.1   This section discusses some possible "information deficit" indicators which are intended to pick up markets where consumers suffer from a lack of information.

21.2   In previous sections, we discussed indicators relating to complaints, civic voice, and market power problems. Together, these sets of indicators would cover structural consumer detriment arising from market power and personal consumer detriment (e.g. arising from informational problems) of which consumers themselves became aware.

21.3   However, this still leaves a class of consumer problems untouched: detriment arising from information asymmetries or behavioural biases of which consumers never become aware. An example of such detriment would be a consumer buying a financial product which was not well-suited to his needs due to inappropriate advice from a financial adviser, such that (unknown to him) he suffers a material reduction in his future wealth.

21.4   It seems likely that in many cases such problems may be caused by the nature of the product in question (e.g. the product is complex, or has credence characteristics). However, assessing the nature of a product is inherently a bottom-up exercise, and thus is more suitable for analysis at stage 2 rather than stage 1.

21.5   Nonetheless, not being able to identify the possible existence of this type of consumer problem would be a weakness in the market monitoring tool, and we have thus developed a potential methodology to address this issue.

21.6   Our suggestion is that the consumer survey which we propose in sections 13 and 15 might include a number of questions designed to identify sectors or products where consumers feel they lack the information or expertise necessary to be sure they are making the right choice. The sectors or products which are quoted most frequently by respondents could then be selected for further analysis in stage 2. In effect, responses to the survey would be used to construct one or more "information deficit" indicators, thus forming the final element in our suggested approach to market monitoring.

21.7   Below, we set out the provisional suggestions we have developed for these indicators, prior to pilot testing. In particular, we discuss the design of the relevant survey questions and the product classification which might be used to classify answers. These survey questions were included in our cognitive testing of the draft questionnaire, and the results are discussed in section 24.

Design of Information Deficit Survey Questions

21.8   In asking consumers to identify sectors where they feel that they lack information, there are two basic approaches that can be taken:

(a) Presenting respondents with a list of product categories, and asking them to select products from the list;

(b) Asking an open-ended question, with responses then coded later using a product classification system.

21.9   In our view, there are serious problems with the first approach, which we discuss in the next few paragraphs.

21.10   In market research, there are practical limits on the length of lists that can be presented to respondents. However, using a short list with product categories defined at a high level (e.g. "transport) is likely to give results which are too vague to allow the Commission to identify specific problem areas.

21.11   One solution to this would be to begin with a high-level list, and then present a sub-list (and possibly a sub-sub list) for those product areas picked out by the consumer. However, this could mean that some potential problem areas might never be identified by respondents simply because they appeared on sub-lists which they were never shown, because the respondent had not picked the relevant high-level category. It would also increase the time required for the questionnaire if interviewers had to work through several levels of list.

21.12   A more general problem with presenting a list of product categories is that it may bias consumers' respondents in various ways. For instance, how products are grouped into categories and the label given to each category could affect which product groups are picked out by respondents. In addition, as discussed in section 15, responses may also be affected by details such as the order in which categories are listed.

21.13   We suggest that an open-ended question is preferable, to allow a sufficiently detailed product classification to be used in subsequent coding of responses and to avoid introducing bias into responses.

21.14   Turning to the detail of the survey questions, we considered a number of different types of information problems which consumers might be asked about. In particular, information problems might arise due to:

(a) Information not being available;

(b) Product complexity;

(c) Product novelty;

(d) Infrequency of purchase;

(e) The product being an experience good;

(f) The product being a credence good.

21.15   However, we considered that there were limits to the number of questions which could be inserted into the survey for the purpose of this indicator, especially given the advice we

received from DG SANCO relating to the need for the survey methodology to be cost-effective.

21.16   In light of this, we drafted two questions which focus on the first two types of information problem in the above list. We selected these two on the grounds that they are important types of problem in themselves, and to some extent they capture other types of problems as well (e.g. credence goods may also be complex).

21.17   The questions were phrased in terms of the consumer's own experience, to make them easier to relate to. They specifically mention goods that the consumer has "thought about purchasing" as well as those which were actually purchased, on the grounds that some information problems can deter consumers from actually engaging in a transaction.

21.18   The draft survey questions (prior to pilot testing) are shown in the box below.

Draft Survey Questions for Information Deficit Indicators

Q23. Thinking about the goods or services which you have purchased in recent years, or which you have thought about purchasing, can you name some goods or services where you felt that there was not enough <u>information</u> available about the good or service for you to feel sure that you were making a good decision about whether to buy it, or which one you should buy?

Q24. Moving on, can you name some goods or services where you felt that the good or service was so <u>complex</u> that it made it difficult for you to judge whether you should buy it, or which one you should buy?

In each case, the interviewer was instructed to prompt the respondent with the question "And can you think of another?" until either three answers had been recorded or the respondent could not think of another example.

Classification of Responses

21.19   Our suggested approach is to classify responses into product groups, and then construct information deficit indicators by identifying those product groups which are mentioned most frequently by consumers.

21.20   In choosing a product classification system, we consider that it needs to be:

(a)   *Comprehensive*, covering all areas of consumer expenditure;

(b)   *Relevant to consumers* (rather than, say, designed for classifying industrial production);

(c)   Ideally, *consistent* with the classification used for other data which the Commission might want to use alongside the survey results.

21.21   We considered the following possibilities:

(a)   NACE, which is discussed in section 20 in the context of market power indicators. However, NACE is an industrial classification scheme, and hence inappropriate for classifying results from a consumer survey. For instance, some NACE codes relate to upstream production and wholesale activities.

(b)   The product classification system used by the UK's Consumer Direct for recording consumer complaints (mentioned further in section 24). In some ways, this might be ideal, as it has been developed specifically in the context of consumer problems. However, we understand that it does not map on to any other classification system.

(c)   COICOP, which stands for the Classification of Individual Consumption by Purpose.[267] Eurostat already publishes consumer expenditure data using COICOP and consumer price indices using an adapted version of COICOP (COICOP/HCIP).

21.22   On balance, we judge that COICOP represents the best classification system to use, since it is designed for the purpose of classifying consumption and would allow survey results to be analysed alongside other consumer data.

21.23   In constructing the information deficit indicator, it should be recognised that the number of times a particular product category appears will partly depend on how widely or narrowly that category is defined. For instance, suppose "electricity" and "fixed line telephone" are both combined within a single category ("utility services"). For any given set of survey responses, this combined category will record a higher total than either product considered separately, which in turn will mean that this combined sector is more likely to be identified as problematic by the indicator.

21.24   In light of this, it may be appropriate to make *ad hoc* modifications to the COICOP/HCIP classification. In particular, breaking down some of the more broadly defined categories would help to address the above issue, at the same time as providing more detailed guidance to the Commission on exactly where problems were occurring.

21.25   Moreover, adding further sub-categories would retain the option of aggregating the data for comparison with other consumer data. By contrast, the scope for comparing with other COICOP-based data would be reduced if existing categories were to be combined rather than sub-divided.

21.26   In confirmation of our provisional conclusion that the Commission should use a modified version of COICOP/HCIP with additional sub-categories where appropriate, we note that

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[267]   Further information on COICOP can be found on the website of the United Nations Statistics Division at: http://unstats.un.org/unsd/cr/family2.asp?Cl=5

this is exactly what European Consumer Centres – Network (EEC-Net) is planning to do in recording consumer complaints.[268]

21.27   However, the precise modifications which should be made for the purpose of constructing information deficit indicators may be different from those made by EEC-Net.   In particular, some of the changes made by EEC-Net appear to reflect its focus on cross-border complaints (e.g. the categories added in for different types of luggage transport), although others (e.g. the sub-categories for different financial services) may also be relevant in the context of market monitoring.

21.28   We suggest that DG SANCO makes some preliminary changes to the COICOP classification prior to conducting the survey, based on judgment and its experience of consumer problems. In cases of doubt, it might be preferable to err on the side of adding in sub-categories rather than leaving them out at this stage. This is because it is likely to be much easier to aggregate results after the coding exercise than it would be to revisit each respondent's verbatim answers to add in sub-categories.

21.29   We recommend that modifications to COICOP should be finalised in light of the first round of survey results. In particular, it would seem appropriate to use sub-categories for those product areas which are mentioned a large number of times by consumers but which appear quite broad.

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[268]   We are grateful to Unit B5 in DG SANCO for providing us details on the classification systems which EEC-NET is planning to introduce.

PART 5: PILOT TESTS

22 PILOT TEST OF SURVEY APPROACH

22.1 This section briefly introduces the cognitive testing of the survey questionnaire, although readers are referred to Ipsos-MORI's document for full details.

22.2 In addition to the above, this section provides some discussion of actual responses to the survey. Although the purpose of cognitive testing was to test the questionnaire and not to obtain data, this high-level discussion does help to illustrate the *type* of analysis that could be carried out on survey results. Little if anything can be read into the actual numbers, since the sample of consumers was both very small (12 respondents) and unrepresentative of the population at large.[269]

Introduction

22.3 Our approach to testing the draft survey questionnaire was to carry out cognitive testing of in both the UK and Poland. This approach was adopted on the basis that the subject covered by the questionnaire is a complex one and hence it was important to test how consumers interpret the questions.

22.4 Cognitive testing is a qualitative approach which involves in-depth discussion of the questionnaire content with the respondent as the interview unfolds. Ipsos-MORI conducted twelve interviews in both the UK and Poland, with respondents selected to ensure coverage of a mix of demographic groups.

22.5 The selection of the UK and Poland reflected a number of factors. The UK was chosen because it is easiest to pilot tests of understanding in one's native country and language, and then apply the lessons learned to respondents in other countries. Poland was chosen because it is one of the larger new Member States of the EU, and one which has an arguably longer history of moves towards a market economy than most of the other new members. Surveying costs in Poland are also relatively low.

22.6 Ipsos-MORI's findings are summarised in the separate Ipsos-MORI document provided alongside this report, which comprises three parts:

(a) An overview of the key findings of the cognitive testing;

(b) A version of the draft survey questionnaire marked up with specific comments arising from the interviews carried out in the UK;

(c) Another version of the draft questionnaire marked up with comments arising from the Polish interviews.

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[269] IPSOS-MORI pre-selected consumers who had experienced problems; and the recruitment criteria were aimed at ensuring coverage of a variety of consumer groups in order to stress-test the questionnaire, rather than at achieving a representative sample.

22.7   Readers are referred to this document for further details of this pilot test.

22.8   An important conclusion drawn by Ipsos-MORI is that the survey approach represents "a perfectly valid way to measure consumer detriment." The cognitive testing also identified a range of enhancements to the draft questionnaire, thus improving the results that would be obtained from a full-scale quantitative survey.

22.9   The proposed survey questionnaire provided alongside this report incorporates findings from Ipsos-MORI's research.

A Brief Analysis of the Survey Results

22.10   In this sub-section, we briefly summarise the salient points to emerge from the actual answers to the survey given by consumers who took part in the cognitive testing. We cannot emphasise too strongly that, because only 12 interviews took place in each Member State and the samples were not random, the findings <u>cannot</u> be read across the whole adult population of either. However, as noted above the discussion serves as a brief illustration of the *type* of analysis that can be carried out on responses to the proposed survey.

UK findings

22.11   Factors where the sample was considerably out of line with the UK population as a whole were the gender mix (three times as many females as males), the proportion of unemployed people (one third), and the proportion of ethnic minority members (also one third).

22.12   All twelve interviewees had suffered some form of personal detriment within the previous 12 months. The number of instances of detriment was fairly evenly distributed, with one respondent quoting four, and three quoting three. The average number was 2.1. Group 8 products and services (communications) were most often mentioned (five instances), either as the most recent or worst problem.

22.13   All but one respondent said that the detriment affected him/her and at least one other adult. Only two said that children had been affected.

22.14   Four respondents (one third) said that the product or service which had caused the detriment was something that they paid for either regularly or by instalments over time. The amounts paid over 12 months by three of the four respondents exceeded £200, the highest being £700-800.

22.15   Eight respondents (two thirds) said they had acquired the products or services giving rise to detriment in a shop or other trading premises. Sales over the phone or internet were not mentioned at all.

22.16   Eight respondents reported faulty product performance, and eight faulty service performance. Six (half the sample) said they felt they had been misinformed or misled.

Five (nearly 40 per cent) said that they had been made aware of the possibility of a problem (though one said that this had nothing to do with the problem that actually arose). Only one complained that the warning had been buried in small print.

22.17 Four respondents (one third) said that their problems had now been resolved. Among the eight whose problems had not yet been resolved, three said the problem had been going on for more than 6 months and one reported 3 months.

22.18 All twelve said they had taken or would take some sort of action. Eight (two thirds) said they had made contact with the supplier or manufacturer, and seven said they had asked for a refund or a replacement. Interestingly, three (one quarter) said they would seek or had sought help from a friend or relative. None took legal advice or raised the matter with his/her MP, and only one took expert advice other than from a solicitor.

22.19 Two respondents reported that they had incurred costs of at least £300 in seeking to get the problem resolved, but most others estimated figures of under £20.

22.20 Ten reported that no-one had suffered physical injury, and one who reported otherwise counted stress as injury. One reported minor injury.

22.21 Nine (three quarters) said they had felt angry and annoyed about the problem(s) they had suffered, and four (one third) said they had been or still were "very worried or stressed".

22.22 Ten out of the twelve respondents (over 80 per cent) said that consumers should not put up with any failing on the part of suppliers, and seven (nearly 60 per cent) thought that consumers should always be compensated by suppliers when something went wrong. Only two thought that it was the consumer's own fault if he/she had not been careful enough before buying.

22.23 As regards propensity to complain, only four out of the twelve said they generally complained, even over a small matter; but none said they never complained. A majority (seven, or just under 60 per cent) said they complained when something major went wrong.

22.24 Four (one third of respondents) said they did not think of themselves as a complaining sort of person. However, we think that responses to Q29 need to be treated with caution, as one respondent replied "yes" to all possible attitudes towards complaining, another answered "yes" to most of them, and yet another replied to none of them.

Findings from Poland

22.25 We were able to consider only nine out of the twelve survey responses in Poland. This is because the results of the three interviews conducted in the city of Poznan were

presented in a format incompatible with the other nine (and indeed with the UK format). The analysis below is therefore based on nine interviews.[270]

22.26   On average, the Polish respondents in our sample suffered more instances of detriment than the UK respondents.

22.27   The average number of product/service categories for which the Polish consumers reported problems was 4.2, compared with 2.1 in the UK.   The two categories most frequently mentioned (by 7 out of 9 Polish respondents, or nearly 80 per cent) were Group 1 (food and non-alcoholic beverages) and Group 3 (clothing and footwear).

22.28   All nine Polish respondents had paid for the problematic product or service in a single payment, though two did not state how much.   There was a wide range of prices paid among the seven who gave an answer to this question, from 40 zloty (about €20 at PPP-adjusted rates) to 13,000 zloty (about €6,500).

22.29   Two respondents did not state where they had bought the product or service, but of the seven who did, four had visited a shop, one had bought by mail order, and two had purchased at some other location, one of them a bank.   There were no internet purchases.

22.30   All nine respondents complained of poor product or service performance, and six (two thirds) complained they had been misled or misinformed.

22.31   Seven out of the nine respondents (nearly 80 per cent) said they had had no reason to think they would encounter a problem at the time of purchase.   One admitted that his/her attention had been drawn to the possibility of a problem, but that it had been buried in small print, and there was one "other" (unspecified) response.

22.32   None of the nine said they would do or had done nothing about the faulty product or service, and only one said that he/she had done nothing this time but would do something in the future. Six of the nine (two thirds) said they had complained to the manufacturer or supplier, and four (almost half) said they had sought the help of a friend or relative.   In round terms these responses are similar to those of UK consumers. Two said they had taken legal advice (a course of action not reported at all by UK respondents).

22.33   As regards the cost of taking action, four reported administrative costs ranging from 40 to 100 zloty (€20 to 50), and three reported lost earnings: one of 200 zloty, one of 550 and one of 2,000 (€100, 275 and 1000 respectively).

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[270]   This reflects the fact that the cognitive testing was not intended to gather data, only to test out how well the questionnaire itself worked.   The fact that in this section of the report we have been able to discuss the actual answers given by respondents is an additional benefit from cognitive testing which was not necessarily envisaged at the time of commissioning.

22.34   One respondent reported that a member of the household had suffered serious injury, and three more reported minor injuries. Three reported major inconvenience and six minor inconvenience. In aggregate these appear more serious than was the case with UK respondents.

22.35   As regards psychological effects, we must discount one respondent who answered "yes" to every possibility, ranging from "slightly disappointed" to "angry" and "stressed". It remains the case, however, that "feeling worried and stressed" was reported by four out of the remaining eight respondents.

22.36   The sales approaches which were perceived as being most of a problem were, ranked on a scale of 1 to 10, unsolicited phone calls (an average of 5.8), unsolicited approaches in the street (5.4) and unsolicited doorstep calls (5.0). Only one respondent reported a scam, which cost him/her 16 zloty (€8).

22.37   Eight of the nine respondents (nearly 90 per cent) thought that consumers should expect only the level of service they pay for, but the same number thought that suppliers should always pay compensation for their shortcomings. Six of the nine (two thirds) said that consumers should not put up with any failings on the part of suppliers, but the same number said that consumers should accept that sometimes the problems they encountered wholly or partly their own fault.

22.38   Finally, four of the nine (over 40 per cent) regarded themselves as "not a complaining sort of person". Three (one third) said they did not complain because they were unsure of their rights, and the same number said they did not complain because they feared it would only make matters worse.

Overall observations on the results

22.39   We caution again that one must not place much weight on results gained from such a small sample. However, for those consumers included in our small sample, the following observations can be made:

(a)   The financial impacts of consumer detriment can be high, running into several hundreds of euro for a sizeable minority of consumers.

(b)   Problematic products or services differed sharply between the respondents from the UK and Poland.

(c)   Some problems can take a very long time to resolve. One third of the UK sample reported problems continuing for more than 3 months and one Polish respondent reported 20 weeks.

(d)   Few of the respondents in either Member State said they were willing to do nothing about the detriment they experience. On the other hand, few of them regarded themselves as habitual complainants, and most took action only when there was something material to complain about.

(e) The psychological impacts of consumer detriment can sometimes be significant. Hence, it is important to capture them, as financial detriment by itself does not tell the whole story.

23   PILOT TEST OF HANDBOOK

23.1   In this section we provide a case study on the application of the guidance set out in the handbook "Assessing the impact of policy on consumer detriment". The purpose of this case study is two-fold:

(a) To illustrate how to apply the handbook in a practical setting;

(b) To evaluate the handbook itself, thus providing a basis for refinement.[271]

23.2   The purpose of the case study is not to provide a full impact assessment but to provide high-level guidance as to how the handbook may be applied in this case. However, we have briefly reviewed available data sources to provide examples of possible approaches which could be undertaken.

23.3   The example chosen is the European Directive 2002/65/EC, also known as the Distance Marketing of Consumer Financial Services Directive. We have chosen this Directive as it is an important measure towards consumer protection in a sector (financial services) where there have been considerable concerns about consumer detriment.

23.4   For the purpose of illustration, we focus on the potential impact of the Directive on consumers in one Member State, namely the UK.

Background

23.5   Consumers have traditionally (and quite naturally) held greater suspicion towards purchases made at a distance compared with those made face-to-face. Without being able to touch and hold products, or to look an advisor in the face, consumers have naturally tended to find the barrier of trust more difficult to overcome.

23.6   In addition, previous studies have suggested that a Single Market for retail financial services has not yet been achieved.[272] Regulatory barriers and possibly also problems of consumer inertia and of remaining local and national market traditions have so far prevented the development of pan-European markets. In this context, the harmonisation of consumer protection regulation across the EU Member States is part of a process towards removing regulatory barriers (and differences), possibly leading to greater cross-border provision of services.

23.7   Consumer protection regulation is felt to be necessary in this area because of concerns that providers may use information advantages to exploit consumers. Standard economic

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[271]   Refinements identified as a result of the case study have been incorporated into the final version of the handbook.
[272]   For example, see
http://ec.europa.eu/internal_market/finances/docs/white_paper/white_paper_en.pdf,
http://ec.europa.eu/internal_market/top_layer/index_24_en.htm, and
http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/719&format=HTML&aged=0&language=EN&guiLanguage=en

theory suggests that regulation to address such information asymmetry may, therefore, not only lead to a decrease in consumer detriment by reducing mis-selling but may also lead to more effective competition between providers.

The situation before Directive 2002/65/EC

23.8   Before the implementation of Directive 2002/65/EC, there were variations between Member States in information disclosure rules, withdrawal rights and redress systems for the distance marketing of financial services.

23.9   The absence of common information disclosure rules across Member States naturally meant that there were differences in the information provided to consumers. Arguably, consumers were not always provided with sufficient information when being sold complex financial services (e.g. documents were not always made available in the language of the consumer, and figures might be presented in a misleading way). It is possible that, as a result of such information challenges, consumers may sometimes have had difficulties in assessing and grasping the details of financial services and in comparing different financial products. This might have created the potential for confusion and mis-selling.

23.10   The lack of common withdrawal rights meant that consumers might not always have had the option to withdraw from an unsuitable contract or, if they did have the option, they may not have been aware of it.   Likewise, differences in redress procedures meant that consumers who experienced problems would have to know about the redress rights in the particular Member State in which they were dealing before they could exercise their rights.

23.11   All the factors mentioned above may have led to lower consumer confidence in buying financial services through distance methods, in particular across Member State borders. A possible consequence of this is that consumers may not have had access to as wide a range of financial services as would have been the case had a more suitable framework been in place.

23.12   The lack of consumer confidence in cross-border sales may also have discouraged firms from offering services across-borders, leading to lower availability of products.   It is possible that this may in turn have led to reduced competition, potentially causing consumer detriment through higher prices and reduced product innovation.

Directive 2002/65/EC

23.13   Directive 2002/65/EC (hereafter known as "the Directive") of the European Parliament and the Council concerning the distance marketing of consumer financial services was adopted on 23 September 2002.

23.14   The main purpose of the Directive is to establish a legal framework to govern the distance marketing of financial services such as pensions, mortgages and other financial instruments by means of distance communications, such as the internet, fax, telephone or mail.   The Directive establishes common standards for the information that financial

intermediaries should give to consumers of financial products before the distance contract is concluded (i.e. before it becomes legally binding for the consumer).

23.15 Article 3 of the Directive sets out in detail the information that a consumer should be given prior to the conclusion of the contract. The consumer is entitled to receive detailed information on:

(a) The identity of the supplier, its representative or any other intermediary involved in the transaction;

(b) The financial service, such as its main features, the total price to be paid, and whether the service is related to instruments that involve substantial risk for the consumer or whose price is closely related to fluctuations in financial markets;

(c) The distance contract – such as the right of withdrawal, the minimum duration of the contract, and the Member State whose regulations are taken by the supplier as the basis for the transaction; and

(d) Redress.

23.16 The Directive is applicable only in those cases where the contract between the financial intermediary and the consumer has been signed exclusively through one or more means of distance communication, such the internet, fax or telephone.

23.17 The provisions included in the Directive are aimed mainly at ensuring that consumers of financial products sold using distance communications are not put at a disadvantage relative to consumers buying through conventional channels.

Intended effects of the Directive

23.18 The underlying economic rationale for the Directive is that, by providing a minimum EU standard on the selling of financial products by means of distance communication, competition and trade in the financial services sector might be enhanced.

23.19 More specifically, the goal of the Directive is to:

(a) Increase the amount and quality of information that is available to consumers of financial products when they decide to use a means of distance communication; and

(b) Raise the level of consumer protection in relation to such transactions (for instance, under the Directive consumers are exempt from any obligation in the case of unsolicited supplies, with the absence of a reply not constituting consent).

23.20 If successful, the Directive may lead to an increase in the confidence consumers have in the use of means of distance communication. Ultimately, this is intended to facilitate the development of a Single Market, increase the degree of competition (because consumers

of financial products can shop more easily in other EU Member States) and, ultimately, lead to lower prices, more choice and higher welfare for consumers.

Application of the Directive

23.21   The Directive entered into force on 9 October 2002, with Member States required to implement the Directive by 9 October 2004. According to a Communication from the European Commission, implementation by the Member States was delayed, with only 20 notifications of implementation received by the Commission by the beginning of 2006.[273]

23.22   Infringement proceedings have been launched against non-compliant Member States, with this issue having been brought to the Court of First Instance in the case of two Member States.

Handbook Methods

23.23   The handbook proposes a number of key steps towards assessing impacts on consumer detriment, which may be applied as appropriate to a particular issue. These methods are summarised in Table 23.1, which is taken from the back of the handbook.

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[273]   COM 2006 161 final.

Table 23.1: The Handbook Methods

	Where to find further guidance in the handbook		
IDENTIFYING WHICH TYPE OF CONSUMER DETRIMENT SHOULD BE ANALYSED	**Section 1**		
ASSESSING THE IMPACT OF THE POLICY ON PERSONAL DETRIMENT (IF RELEVANT)	**Section 2**		
Qualitative analysis		Annex 3	
Gathering of data		**Section 4** Annex 4 Annex 5	
Review of existing evidence			
Direct evidence on consumer outcomes			
Indirect evidence on causal mechanisms			
Other issues to review and analyse if relevant			
Psychological detriment		Annex 6	
Reasonableness of expectations			
Behavioural biases		Annex 7 Annex 8	
Distributional impacts		Annex 11	
ASSESSING THE IMPACT OF THE POLICY ON STRUCTURAL DETRIMENT	**Section 3**		
Identify which **market and regulatory failures** may be affected by policy			
Analyse each impact qualitatively			
Gather data to **estimate change in consumer surplus**, where proportionate		Annex 9	**Section 4** Annex 5 Annex 10
Review of existing evidence			
Direct evidence on consumer outcomes			
Indirect evidence on causal mechanisms			
Aggregation of impacts, taking care to avoid double-counting			
Consider whether there are **distributional impacts** and analyse if significant		Annex 11	
INTERPRETING THE RESULTS	**Section 1**		
Bring together analysis of **personal and structural detriment**			
Bring together analysis of **consumer detriment and other policy impacts**			

Applying These Methods to the Directive

23.24 This case study reviews how the approach outlined in the handbook can be applied to assessing the impacts of the Directive in the UK. We also briefly consider possible approaches to quantifying these impacts.

Identifying which type of consumer detriment should be analysed

23.25 The first step recommended in the handbook is to identify which type of consumer detriment should be analysed. In other words, should the analysis look at impacts on personal detriment, structural detriment, or both?

23.26 Figure 23.1 summarises the decision tree which the handbook provides on this issue, with the arrows shown in red representing the likely path on this issue.   The key questions to consider are:

(a) Does the policy affect consumers?

(b) Is the policy a consumer protection rule?

23.27 The answer to the first question is yes, since the policy will change the information consumers are provided with and their rights of redress when engaging in distance purchasing of financial services. It is at least possible that this will alter final consumer outcomes, and hence it is appropriate to analyse the impact of the policy on consumer detriment.

23.28 The answer to the second question is also yes. The Directive is clearly a consumer protection rule, since Article 3 of the Directive requires that consumers receive specific protections such as the right to detailed information, the right to withdraw from the purchase and the right to redress.

23.29 In the light of these answers, the handbook suggests that it is appropriate to analyse impacts on both personal and structural detriment.

Figure 23.1: The Decision on Which Type of Detriment to Analyse
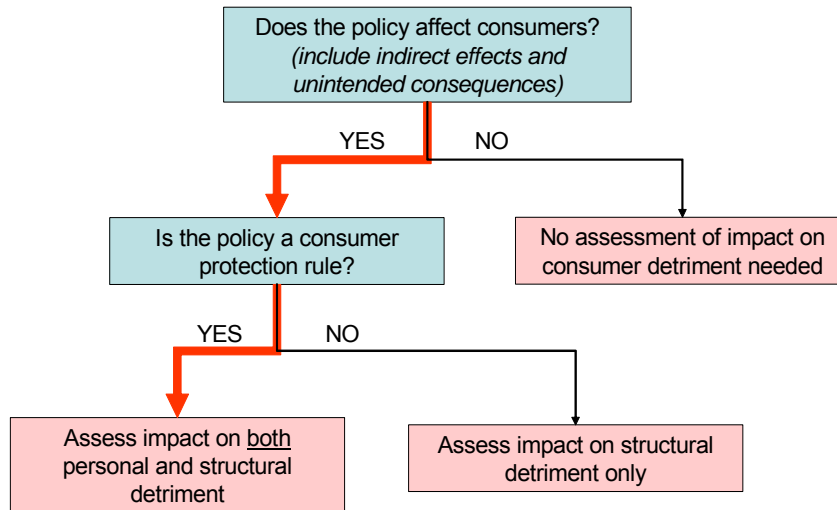
Assessing Impacts on Personal Detriment

23.30   Here, we begin with a preliminary discussion of some of issues relating to an assessment of impacts on personal detriment, before discussing specific steps in the analysis that would be required.

23.31   The most likely sources of personal financial detriment that could be relevant and that are tackled by the Directive would appear to be:

(a) Financial losses due to the purchase of inappropriate financial products;

(b) The administrative costs that might be required to resolve problems related to the product;

(c) The costs of expert advice or assistance, such as legal costs; and

(d) Lost earnings due to lost time.

23.32   The sources of non-financial detriment most likely to be affected by the Directive would appear to be psychological detriment, inconvenience and loss of time.

23.33   The handbook suggests that personal detriment can be analysed, in principle, in three different ways: qualitatively, quantitatively (but in non-monetary terms), and in monetary terms (see Table 2.2 in the handbook).

(a) The qualitative approach consists of providing a qualitative analysis of the effectiveness of the new regulations in protecting consumers and the likely scale of the effects;

(b) The quantitative (but non-monetary) approach would involve collecting data on variables such as the number of consumers affected (perhaps broken down by demographic factors); and finally

(c) The monetary approach would seek to attach a value to the reduction in the financial losses suffered by consumers.

23.34 The resource put into quantification should be proportionate to the potential consumer benefits from improving the policy decision.

Qualitative analysis

23.35 The handbook recommends beginning with qualitative analysis of the impact of the policy on personal detriment. It also explains how a causal model (i.e. a diagram constructed with boxes and arrows) can be used to show the policy affects the behaviour of firms and consumers and how this feeds through into final outcomes.

23.36 A (high-level) causal model of the possible effect of the Directive is shown in Figure 23.2.

Figure 23.2: A Causal Model for the Directive
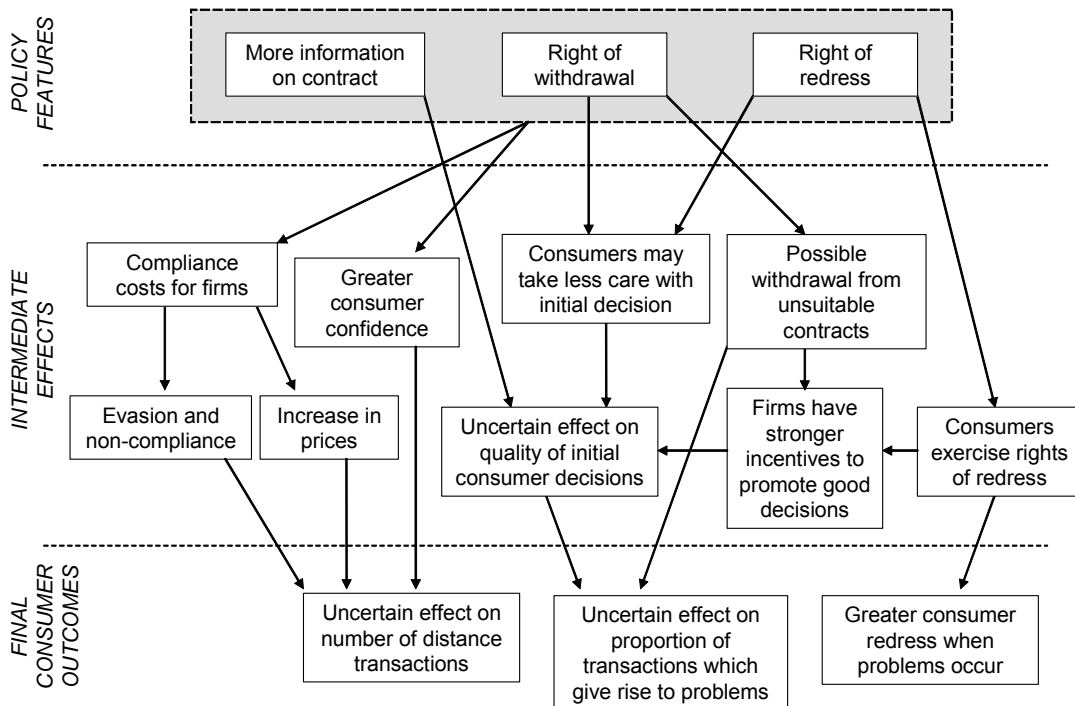
23.37   This reasoning behind this diagram is explained below.

23.38   The Directive requires suppliers to provide customers with information on the product's main features, as well as information on withdrawal rights, redress, complaint handling, and compensation mechanisms.

23.39   This may have a number of effects:

(a) *Consumers will have greater information when making their decisions.* To the extent that consumers understand this information and factor it into their decision making, this would be expected to improve consumers' decisions (all other things being equal).

(b) *Consumers may have greater confidence in distance purchasing*, because of the safeguards provided by the Directive. All other things being equal, this will tend to increase the volume of distance purchases of financial products.

(c) *Firms will incur compliance costs.* These costs will include the costs of training staff, supplying information to consumers and providing redress when problems occur. These costs could give firms an incentive either to engage in (illegal) non-compliance or else to find ways of legally evading the measures (e.g. by selling through other routes). Where firms do comply with the measures, the price of financial products could rise to reflect the additional costs. These effects will tend (all other things being equal) to have a negative effect on the volume of distance sales.

(d) *Consumers may take less care when taking their initial decisions*, as a result of their enhanced rights of withdrawal and redress. This could be viewed as a "moral hazard" problem, whereby consumers put less effort into avoiding "bad" purchases because they are more confident that they would receive redress if problems occur.

(e) *Firms may have stronger incentives to provide appropriate products to consumers,* as this will reduce their exposure to the cost of processing future withdrawals and providing redress if problems emerge.

(f) *More consumers may withdraw from contracts or seek redress when they experience problems*, as a result of the legal rights granted to them by the Directive.

23.40   It is clear that some of these effects will work in opposite directions, and hence in the absence of empirical evidence it is difficult to say what the overall impact of the Directive may be. In particular, it is unclear whether the overall number of distance sales of financial services will increase or decrease, and whether the proportion of transactions which give rise to problems will rise or fall. However, it does seem likely that when problems emerge a greater proportion of consumers will seek and obtain redress.

23.41   Given that usage of the internet is increasing, we might expect that, in the future, an increasingly large fraction of consumers would be affected by the Directive, making the likely impact bigger than would otherwise be the case.

23.42   This qualitative analysis highlights the fact that the Commission would need to gather empirical data to come to a firm conclusion on whether the Directive is likely to increase or reduce aggregate personal detriment.

Gathering of data

23.43   The handbook process recommends a review of existing evidence, followed by collection of data where necessary to fill any gaps. In this section, we briefly discuss some of the existing data sources which are available, and the further work which could be undertaken by the Commission if it were undertaking a full assessment of the Directive.

Analysis of complaints

23.44   Consumer Direct is an organisation set up by the UK government to provide information and advice to consumers. It maintains a database of consumer complaints which is a potentially useful source of data.

23.45   One approach would, therefore, be to seek to use Consumer Direct data on the number of complaints to undertake before/after evaluation. If there is a sufficiently long time series of complaints, this could allow for an evaluation of the impact of the Directive on the number of complaints.

23.46   To illustrate this, Table 23.2 overleaf is a breakdown of complaints from UK Consumer Direct data from October to September 2006.

Table 23.2: Breakdown of Complaints by Purchase Method (Oct 2005 to Sept 2006)

	Distance selling	Non-distance selling	Purchase method not specified	Total
Personal banking	750	988	1,420	3,158
Hire and unsecured credit	956	1,552	1,028	3,536
Ancillary credit business	2,199	1,477	2,478	6,154
Insurance	2,420	2,785	2,449	7,654
Mortgages and secured credit	154	206	245	605
Pensions	27	14	27	68

23.47   Distance selling complaints are broken down further in Table 23.3 using more detailed categories for purchase method.

Table 23.3: Breakdown of Distance Selling Complaints (Oct 2005 to Sept 2006)

	Internet	Internet auction	Mail order	Telephone	Unsolicited email	Unsolicited fax	Unsolicited postal	Unsolicited telephone
Personal banking	123	12	30	304	49	4	160	68
Hire and unsecured credit	108	6	94	537	8	3	151	49
Ancillary credit business	144	6	141	1,035	3	4	706	160
Insurance	289	4	106	1,653	1	1	151	215
Mortgages and secured credit	9	0	7	86	1	0	13	38
Pensions	0	0	1	8	0	0	15	3

23.48 Further, with information on the average financial loss associated with a complaint, we might put a value on the change in personal financial detriment brought about by the Directive.

23.49 By using an estimate of the fraction of consumers that use distance selling techniques to engage in cross-border trade, it might also be possible to derive an estimate for the impact of the Directive on the number of complaints by UK consumers who engaged in cross-border purchases of financial products by means of distance selling techniques.

23.50 The UK Consumer Direct database includes some historical data on complaints. This seemed superficially attractive as it included data on how the number of distance selling complaints had evolved over time.

23.51 However, the handbook highlights the need to interpret complaint data cautiously. In this case, we considered that time series data from Consumer Direct would be problematic because:

(a) The data went back only to October 2003, and thus gave no sense of the underlying trend over an extended period before the Directive was introduced;

(b) Over the period covered by the data, the rise in the number of complaints relating to distance selling was implausibly rapid. We believe that this is much more likely to reflect increased awareness of the service or better central data collection, rather than reflecting any true underlying change in market practices.

23.52 In addition (and this applies also to the data reported in the tables above) a rise in the number of complaints cannot straightforwardly be interpreted as indicating a rise in consumer dissatisfaction. Indeed, the reverse might be so: as a consequence, perhaps, of the Directive (or other mechanisms that might improve consumer redress) consumers

may now think it more worthwhile to complain (i.e. they feel more protected, not less, and hence complain more often).

23.53   These considerations highlight the value of thinking carefully about biases in complaint data, as recommended in the handbook.

Evidence from consumer surveys

23.54   Among the methodologies suggested in the handbook for gathering data, it can be argued that the most effective in this case might be to run a survey (or to make use of existing surveys if they are deemed suitable for the purpose of the assessment).

23.55   A survey could be used to gather data on the frequency of consumer problems from distance purchases of financial services and on the average financial losses associated with these problems. This data could be used to derive a monetary estimate for the level of existing personal detriment associated with financial services sold through distance means of communication.

23.56   A survey could also be used to explore how consumers may respond to the various protections provided by the Directive. For instance, it may be possible to use survey evidence to estimate the increase in the number of transactions which would result from better customer protection against mis-selling.

23.57   In theory, it might then be possible to derive a range of estimates for the potential impact of the Directive, based on scenarios for the rate of growth in distance purchasing through time with and without the policy and the extent to which the Directive reduces the frequency and magnitude of personal detriment.

23.58   The figures reported in the Consumer Panel Research Paper March 2006 published by the UK Financial Services Consumer Panel seem to suggest that, as of 2004, in the UK about 40 per cent of financial products were bought either through the internet, or by digital TV, telephone and post.[274]

23.59   In addition, a recent special Eurobarometer publication[275] has found that about 53 per cent of those UK consumers that had bought at least one financial product in the past twelve months had concluded their transaction online, by post or by phone. However, according to this survey only about 5 per cent of the UK population has considered taking out an insurance policy or a mortgage in another Member State.

23.60   This finding is supported by an EU survey[276] from 2002 which found that less than 5 per cent of UK respondents had ever obtained a bank account from another EU Member

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[274]   These data are based on a survey made up of 1,073 adults aged over 18 in the UK between November and December 2004.
[275]   Consumer protection in the internal market, 2006.
[276]   European Public opinion: views on financial services, 2002.

State. Similar results (i.e. of the order of one to four per cent) were identified for other types of financial services.[277]

23.61 A more recent Eurobarometer survey in 2004[278] also showed that, when asked whether they would consider taking out a financial product in a different Member State, UK consumers showed an "average propensity, pretty similar to the EU average".

23.62 These data also seem to suggest that in the UK the number of people who purchase financial instruments through distance selling means is relatively large, although the number of people who engage in cross-border purchases is relatively small.

23.63 In the light of this evidence, it is possible that the Directive could facilitate greater cross-border provision of services. Indeed, the impact of the Directive could grow through time if the technological potential for distance selling continues to improve and the confidence which national consumers have in remote purchasing grows.

23.64 By setting minimum consumer protection rules everywhere in the EU, it could also be argued that the Directive may improve consumer confidence in the likely quality of cross-border providers.

23.65 The Eurobarometer Special Report (2004) reported that, in the UK, about 47 per cent of respondents stated that they did not experience significant obstacles in purchasing financial products in a different Member State.

23.66 Further, the Eurobarometer Special Report (2005) reported the results of an EU-wide survey according to which, in the UK, it was felt by respondents that the main obstacles to cross-border trade were:

(a) Risks related to fraud (mentioned by 23 per cent of respondents);

(b) Insufficient/inaccurate information (18 per cent);

(c) Misleading information (9 per cent);

(d) Perceived low protection in other Member States (8 per cent); and

(e) Excessive/incomprehensible information (5 per cent); and

23.67 It is possible that, if the Directive successfully addresses these issues, UK consumers might increase their cross-border purchases. However, there may be other barriers to such trade (e.g. different languages) which mean that financial services may still largely be purchased from suppliers based in the same country as the consumer.

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[277] Similar data were also reported for 2003 (European Public opinion: views on financial services, 2003).
[278] European Public opinion: views on financial services, 2003.

Case studies on similar policy changes

23.68   An alternative approach would be to identify direct evidence of the impact of the Directive by analysing similar policy changes in similar sectors in the UK or in other Member States. For instance, it might be possible to examine the impact of the Distance Selling Directive, which applies to all sectors apart from financial services.

23.69   If this approach can be implemented successfully, such case studies could provide an approximate figure for the impact of the policy on personal financial detriment or, at least, on the number of problems and complaints.

Psychological detriment

23.70   In theory, the Directive could also have an effect on the extent of longer-term psychological detriment. For example, in the absence of clear protection, consumers may be fearful about purchasing financial services from suppliers in other Member States. This could reduce their confidence in cross-border trade, perhaps even outside the financial sector. However, as the number of consumers affected by the Directive is likely to be small, this effect, although plausible, might be small in practice.

Reasonableness of expectations

23.71   As explained in the handbook, when interpreting data from consumer complaints or surveys, it is necessary to bear in mind that consumers will judge their experiences relative to their *actual* expectations. In some cases, however, consumers' expectations may be either unreasonably high or unreasonably low.

23.72   When using existing survey evidence such as that discussed earlier, it will generally be necessary to use actual expectations as a proxy for reasonably expectations. However, this may bias any cross-sectional analysis (e.g. between Member States), because different groups may have systematically high or low expectations.

23.73   If the Commission were to commission an *ad hoc* survey to gather further evidence, then it would be possible to include control questions (e.g. on attitudes to consumer rights and complaining) to allow identification of differences in expectations between different groups.

Behavioural biases

23.74   The Directive might also have an impact by addressing the personal detriment that arises from behavioural biases on the demand side of the market rather than from any malfunctioning on the supply side of the market.

23.75   Annex 8 to the handbook lists the most important types of behavioural biases that have been discussed in the literature. An example is the *default bias*, which means that people are more likely to choose an alternative that is indicated as the default.

23.76   The Directive requires Member States to take appropriate measures aimed at prohibiting the supply of goods or services to a consumer without their being ordered by the consumer beforehand and "exempting the consumer from the provision of any consideration in cases of unsolicited supply, the absence of response not constituting consent" (Article 9). Hence, dishonest sellers can no longer exploit the default bias by creating a situation (through unsolicited supply) in which purchasing a financial product becomes the default option for consumers.

Assessing Impacts on Structural Detriment

Identifying areas of impact

23.77   Before entering into discussion of the possible quantification of the Directive's impact on structural consumer detriment, it is important to identify the key market or regulatory failures that may be affected by the Directive.

23.78   The handbook identifies a number of different market and regulatory failures. These are shown in Table 23.4 below, with ticks to show which ones are likely to apply in this case.

Table 23.4: Relevant Market and Regulatory Failures

Will the policy either increase or reduce…		Explanation
Market power	✔	Potential for greater cross-border competition
Information problems	✔	Firms required to provide consumers with information
Innovation	✔	Potential for selling products EU-wide could spur provision of innovative niche products
Product variety	✔	Greater potential for consumers to choose products from suppliers in other countries
Other externalities		
Product restrictions	✔	Directive restricts flexibility of suppliers to draw up their own terms and conditions (e.g. on withdrawal rights)
Restrictions on prices/volumes		
Restrictions on trade		
Firms' compliance costs	✔	Firms are likely to incur costs complying with Directive
Restrictions on production		
Other regulatory failures		

Qualitative analysis

23.79   Four major categories of market failures considered by the handbook which may be affected by the Directive are:

(a) Market power;

(b) Information problems;

(c) Sub-optimal innovation; and

(d) Sub-optimal product variety/consumer choice.

23.80 In general, the Directive might be expected to ameliorate these market failures, although it should be recognised that the practical importance of these market failures, as measured by consumer surplus, is likely to vary across Member States.

23.81 In addition, the Directive could create or increase the following two types of regulatory failure:

(a) Product restrictions;

(b) Compliance costs.

23.82 In line with the process set out in the handbook, we present below high level qualitative analysis of each of these impacts.

Market power

23.83 It is possible that the increase in protection that the Directive affords to UK consumers purchasing financial products at a distance could lead to more cross-border purchases, although (as discussed earlier) empirical evidence would be needed to confirm that this was the case.

23.84 If cross-border trade through distance selling became more widespread so as to be regarded as a credible alternative to purchasing from domestic suppliers, this would tend to increase the competitive pressure felt by UK suppliers.

23.85 In other words, growth of distance selling techniques could be seen as an increase in the relevant geographical market for UK consumers, who would no longer be constrained to buy financial products from domestic suppliers.

23.86 How important this effect is likely to be in practice is not entirely clear. For instance, the financial sector in the UK, arguably unlike that in some other EU Member States, seems to be relatively competitive. It is therefore unlikely that a growth in the importance of financial products purchased by means of distance selling techniques, and the associated potential increase in the competitive pressure felt by UK suppliers, would translate into a significant reduction in the market power enjoyed by UK suppliers. Hence, it seems unlikely that the Directive would lead to any significant reduction in structural detriment in the UK as a result of impacts on market power.

23.87 Of course, in those Member States with less competitive financial sectors the effect might be greater. In particular, in a Member State characterised by a highly concentrated financial market and significant problems of competition, the increase in the cross-border trade that might be generated through the new regulations included in the Directive might lead to greater competitive pressures on the domestic market. This, in turn, could lead to

lower prices, both for those consumers who buy financial products using distance selling techniques and those who do not.

23.88   Further, consumers that live in small Member States could have an additional benefit, as the Directive may enable them to purchase from suppliers that operate at a much larger scale and thus at lower cost than domestic producers.

Information problems

23.89   The Directive explicitly aims to tackle the information problems related to both imperfect and asymmetric information by:

(a) Forcing the supplier to provide the relevant information that a consumer would need; and

(b) Entitling consumers to receive redress if they was sold a financial product not suitable for their needs. (This could be viewed as acting like a warranty, which is a commonly used device to attenuate imperfect information problems.)

23.90   When, in a given market, asymmetric information problems between consumers and suppliers are serious the amount of trade in that market could be reduced to a sub-optimal level and, at the limit, the market could cease to exist. Hence, if the Directive were to be successful in reducing information problems then it might result in increased consumer surplus.

23.91   In this case, however, it is unlikely that increasing standardisation of the information consumers are entitled to receive across Member States would have any sizeable effect in improving the amount of information available to consumers in the UK. As in the case of the market power problems discussed above, it is possible that there may be greater effects on consumer information in some other Member States.

Innovation / product variety / consumer choice

23.92   Another means whereby the Directive might affect structural detriment is as follows: by granting more protection, UK consumers might be more willing to engage in cross-border trade, which in turn might increase consumer welfare by facilitating greater consumer choice and stimulating innovation.

23.93   In general, the Directive could be expected to lead to more choice for UK consumers, either because they can buy products from elsewhere in the EU, or because UK suppliers introduce new products in response to changed competitive conditions.

23.94   For example, it is possible that some categories of niche financial products might not be offered today in the UK because the UK demand for this kind of product is not high enough to cover the fixed costs associated with their supply.

23.95 Standard economic theory has long recognised (at least since the work of Dixit and Stiglitz, 1977) that an unregulated market might provide less product diversity than is socially optimal for products which:

(a) Have a very rigid demand, which is often the case for products strongly desired by only a few consumers;

(b) Entail large fixed costs (i.e. such that the market demand might not be enough to cover them).

23.96 However, by increasing the confidence of consumers in the reliability of the distance selling channel of distribution, it is possible that the Directive would facilitate the creation of a pan-EU Single Market, which could in turn generate enough demand for the supply of those particular types of niche financial products.

Product restrictions

23.97 It could, on the other hand, be argued that the Directive restricts the design of financial products, since firms will have to include certain rights of withdrawal and redress within financial contracts signed at a distance. Further, if these additional consumer rights increase the price of such financial services, then some consumers may be worse off, since they might have preferred a cheaper service albeit with less protection in the event that things went wrong. In the absence of empirical evidence, it is difficult to know whether this effect is likely to be significant in practice.

Compliance costs

23.98 Any compliance costs that arise from the implementation of the Directive should be subtracted from the benefits that have been identified (qualitatively) so far, especially if it were felt that firms would pass these costs onto consumers.

23.99 For example, the UK FSA has estimated that, in order to implement the Directive, the costs for UK financial operators might be as high as £22 million, of which £20.3 million would comprise one-off costs. As long as some of these costs are passed onto consumers, they would end up paying a higher price.

23.100 Estimating precisely what proportion of such costs would be passed on to consumers would require the construction of an economic model of company behaviour, and the use of parameters such as the elasticity of demand and marginal costs.

23.101 However, the handbook advises that desk officers should adopt the working assumption that all impacts on business customers will ultimately be passed through to end-consumers, unless there are specific reasons for thinking otherwise. Hence, it would be reasonable to assume that, when this impact is considered in isolation, the compliance costs discussed above will lead to an equivalent increase in structural consumer detriment.

23.102 It is worth noting that, while the potential benefits of the Directive appear to arise mainly from a possible increase in cross-border trade, the Directive will increase compliance costs for all distance transactions (including those within the borders of a Member State).

Estimating consumer surplus

23.103 The handbook describes how changes in consumer surplus (and hence structural detriment) can be estimated in the following four types of case:

(a) Changes in the price that consumers pay for existing volumes of consumption;

(b) Changes in the quality of a good or service, for existing volumes of consumption;

(c) Changes in the volume of consumption of an existing good or service;

(d) Consumption of a new good or service.

23.104 In theory, all four types of impact could occur in this case. In particular:

(a) The *price* of financial products may change due firms' compliance costs and/or reduced market power;

(b) The *quality* of financial products may change as a result of the additional information and rights provided to consumers, and consequent changes in the incentives of firms and consumers (see causal model in figure 23.2);

(c) The *volume* of financial products bought through distance communication may change due to greater consumer confidence, incentives on firms to evade the Directive by selling in other ways, and changes in consumer decisions resulting from the above effects on price and quality;

(d) The Directive might lead to consumption of **new financial products** due to effects on choice and innovation. (For instance, we discussed earlier how the Directive could in theory stimulate markets for niche financial products.)

23.105 The Commission would need to commission further empirical work to gather the data that would be necessary to quantify these changes in consumer surplus. Section 4 of the handbook sets out some of the tools that are available for gathering data.

23.106 To give an example, suppose the Commission wished to gather further data on the change in the price of financial services that might result from the Directive. One approach would be to examine the impact of similar reforms (e.g. the Distance Marketing Directive) on the price of comparable services.

23.107 Alternatively, at a very high level of analysis, one might argue that, as an upper bound, prices in the UK financial sector could fall to the minimum level that one might find in the EU. This is of course likely to be an overestimation of the price effect of the Directive because it would amount to an assumption that:

(a) The UK financial market is not entirely competitive;

(b) A significant fraction of UK consumers would be ready to shift to suppliers from other Member States and that these suppliers would be able to accommodate the additional demand.

23.108 For this reason, an estimate obtained using the second approach would need to be treated with caution.

23.109 Finally, in thinking about some of these changes in market outcomes (e.g. price), it would be necessary to define the "market" that should be considered. For instance, is the relevant market just the UK market for distance selling? Or is it the whole UK market for financial services, or even a market which includes some other EU Member States?

Linkages between areas of impact

23.110 Finally, after having assessed, qualitatively or quantitatively, the impact of the Directive on structural detriment, it is important to acknowledge that there are linkages between these effects, making the risk of double-counting a possibility (see handbook, Figure 4.1). For instance, the handbook notes that the degree of market power experienced by producers could be affected by the degree of information available to consumers.

23.111 In our earlier qualitative analysis, the market power issues we discussed were related not to information problems, but to restrictions on cross-border trade (which we argued might lead to market power in the case of some smaller Member States). Hence, it seems unlikely that there would be double-counting if the impacts on market power and information problems were treated separately. However, if the Commission were to undertake a full assessment of the policy, the possibility of double-counting would need to be kept in mind in the design of any more detailed empirical work.

Distributional impacts

23.112 Finally, the handbook states that consideration should be given to the distributional implications of the Directive. The qualitative analysis above suggests that any benefits from the Directive may be most likely to come from a higher rate of innovation and the wider choice that this might create for UK consumers. However, in order to exploit at least some of the new opportunities that might arise from the Directive, consumers will need to be computer literate and have access to the internet. For these reasons, the elderly and, perhaps also the less well educated, might not gain as much from the Directive.

23.113 According to a 2003 Eurobarometer survey,[279] in the EU more educated people are more likely to report having already made a bank transaction using the telephone (33 per cent)

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[279] Public opinion in Europe: financial services report (2004).

than less educated people (8 per cent). A similar pattern can be observed across the occupation scale, with managers much more likely to have used the telephone (and other means of distance communication) than retired individuals and students. Similarly, people in the 25-54 age group are much more likely to have made a transaction by telephone than the youngest and oldest sectors of the population.

Evaluation of Handbook

23.114 To reiterate what was said at the beginning of this section, the purpose of this case study has been two-fold:

(a) To illustrate how to apply the handbook in a practical setting;

(b) To evaluate the handbook itself, thus providing a basis for refinement.

23.115 Key lessons arising from this case study have included:

(a) **A vital first step is to appreciate what level of analysis is appropriate and proportionate to the matter under consideration.** In this case the plausible potential impacts (such as compliance costs) were reasonably significant, and in principle a relatively detailed assessment of the impact on consumer detriment could, in principle, have been justified.

(b) **The scope and path of analysis depends crucially on whether it is more appropriate to focus on personal detriment, structural detriment, or both.** In this case we concluded that it was appropriate to consider both types of detriment.

(c) **Qualitative analysis is very likely to be possible without commissioning additional studies.** However, it should be recognised that even qualitative analysis may sometimes require specialist input.

(d) **It is important to examine what data is already available before commissioning additional external studies.** However, in this case the data available were limited.

(e) **Quantitative results can be difficult to obtain, and, although it is desirable to achieve numerical assessments where possible, the reporting of results should carefully reflect the appropriate confidence that can be placed in the numbers.** In the present case our view is that, in the absence of further detailed studies (modelling or surveys), it would not be possible to offer more than a cautious view on the expected direction and materiality of change (e.g. increase/decrease and significant/modest). However, it should be noted that, since we have concluded that a more detailed assessment would be justified, the implication of this is that additional studies would be necessary in this instance before drawing conclusions.

(f) **It is important to consider potential biases in data – for instance, when drawing conclusions from consumer complaint data.** In this case, for example, it might have been tempting to conclude that just because the number of complaints rose,

consumer detriment had increased, but we argued that this was unlikely to be a valid conclusion due to potential biases in the data.

(g) **Effects on innovation and consumer choice must not be ignored.** We have discussed the possibility that the impacts of the Directive on innovation and choice may be greater than its impacts in other areas. This will not be true of every measure, but is a possibility that should not be ignored.

23.116 The case study also gave rise to a number of refinements to the handbook, which have been incorporated into the final version. These included the following:

(a) Recognition that in some cases and for some types of policy impact it would not be feasible or proportionate for desk officers to quantify the change in consumer surplus;

(b) Recognition that, for consumer protection rules, decreases in structural detriment might sometimes follow on from a reduction in personal detriment (e.g. a reduced risk of personal detriment might ultimately reduce market power by stimulating cross-border transactions). The handbook now suggests that, in such cases, it may be possible to use impacts on personal detriment as a proxy for impacts on structural detriment, where the latter are difficult to measure directly;

(c) Recognition of the value of a summary table showing the steps in the analysis.

24 PILOT TEST OF MARKET MONITORING INDICATORS

24.1 We have carried out the following pilot tests of our suggested market monitoring indicators:

(a) The consumer complaint indicator has been tested by analysing UK complaint data obtained from Consumer Direct;

(b) We tested our "civic voice" indicator by reviewing campaigns being run by *Which?*;

(c) The market power indicators have been tested by:

– Using data from the Amadeus database to compute these indicators across all EU25 Member States and across many sectors of the economy;

– Carrying out a calibration and testing exercise using data on DG Competition antitrust cases;

(d) The indicators of information problems have been tested as part of the cognitive testing undertaken by Ipsos-MORI.

24.2 These four elements of testing are discussed in turn below.

Consumer Complaint Indicator

24.3 The pilot test of the complaint indicator uses 2005 data from the UK's Consumer Direct database of consumer complaints to illustrate how such data can be used to shed light on areas where consumers are suffering detriment. We are grateful to the OFT for their assistance in gaining access to this data.

24.4 Clearly, the use that DG SANCO will be able to make of complaint data in the future will depend on the extent to which it obtains co-operation from the relevant bodies in Member States, and the nature of the data which it obtains in this way.

24.5 The complaint data in the Consumer Direct database is broken down into eight product/service code groups, shown in Table 24.1.

Table 24.1: Product/Service Code Groups

Code	Product/service group
A	House fittings and appliances
B	Other household requirements
C	Personal goods and services
D	Professional and financial services
E	Transport
F	Leisure
G	Commercial goods and services
H	Broadcasting

24.6   The following chart shows the number of complaints in each product/service code group for the year 2005.

Figure 24.1: Number of Complaints by Product/Service Code
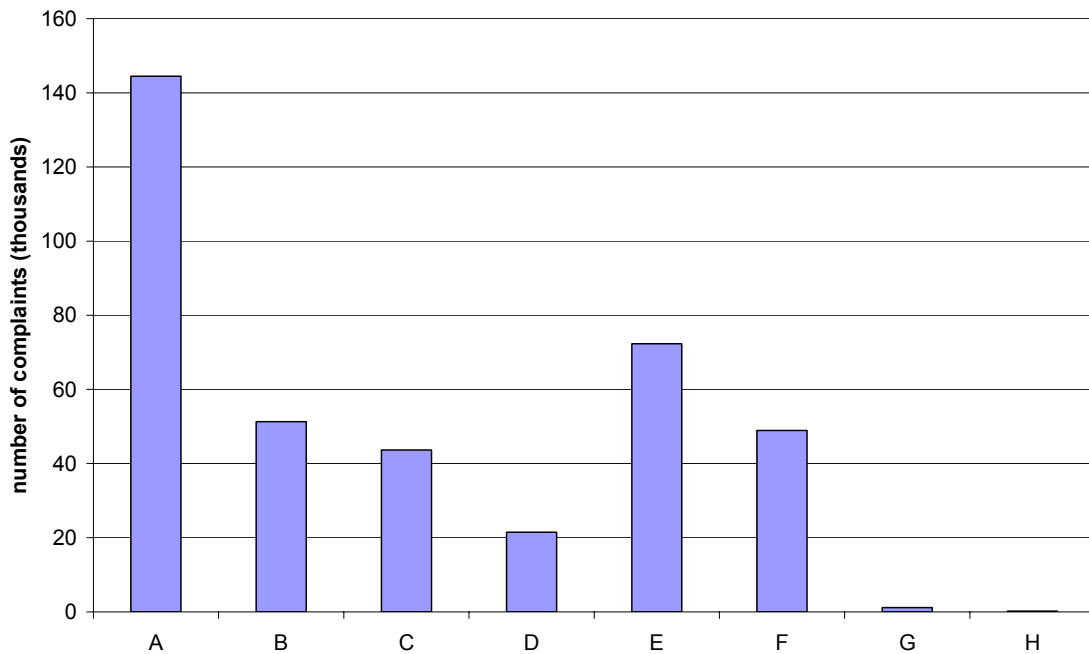
24.7   The product/service area with most complaints in 2005 was household fittings and appliances (144,439 complaints). This was followed by transport (72,304 complaints) and other household requirements (51,278 complaints).

24.8   Consumer Direct also divides complaints into 18 complaint codes which categorise the trading practice or activity being complained about. Figure 24.2 below shows the number of complaints in each category.

Figure 24.2: Number of Complaints by Complaint Code
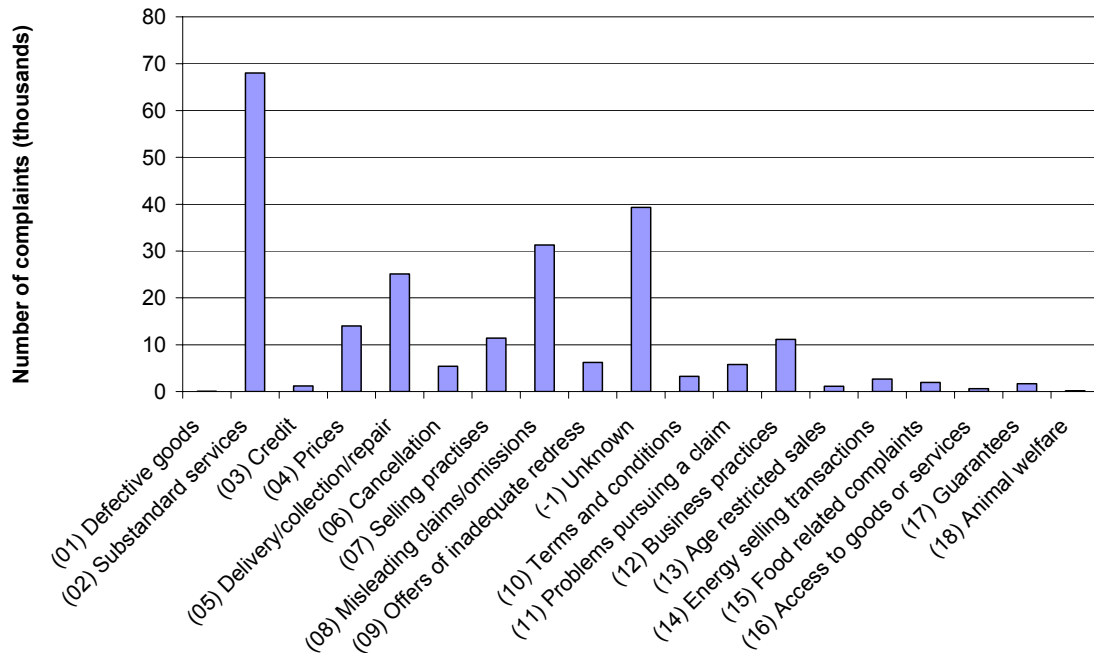
24.9   The category with most complaints was substandard services (68,046 complaints). This was   followed   by   misleading   claims/omissions   (31,296   complaints)   and delivery/collection/repair (25,133 complaints). There were 39,294 complaints where the category of complaint was unknown.

24.10   Consumer Direct also groups complaints by the method used to purchase the product or service being complained about, where this information is known. There are 25 different categories (plus unknown). The following table lists the number of complaints for each purchase method.

Table 24.2: Complaints by Purchase Method

Purchase method	Number of complaints
Trader premises	199,530
Telephone	30,262
Internet	22,505
Doorstep invited	14,588
Mail order	10,264
Unsolicited postal	7,708
Unsolicited telephone	5,746
Doorstep uninvited	3,790
Internet auction	1,364
TV auction/interactive sale	1,087
Private purchases/sales	1,083
Market stall	1,075
Trade fair/exhibition	941
Auction	907
Continuous purchases (e.g. subscriptions)	697
Street seller	399
Unsolicited email	346
Street canvasser	222
Boot sale	137
Unsolicited fax	110
One day sale/mock auction	104
Party plan	65
Transport fare, purchased at time of travel	61
Unknown	84,507
Other	11,668

24.11   In 2005 the most common purchase method was trader premises, which accounted for 50 per cent of complaints. The next most common methods were telephone (8 per cent) and internet (6 per cent).

24.12   The Consumer Direct data is broken down further into 2-digit product/service codes. The following table shows the ten 2-digit product/service codes with most complaints.

Table 24.3: 2-Digit Product/Service Codes with Most Complaints

2-digit product/service codes	Number of complaints
(AB) Home maintenance and Improvements	36,338
(EE) Second hand cars	31,167
(BM) Telecommunications	26,548
(AL) Audio-visual	19,652
(AN) Large domestic appliances	18,459
(AM) Personal computers, accessories, software and services	16,176
(CA) Clothing and clothing fabric	13,474
(EF) Car repairs and servicing	12,980
(AC) Glazing products and installations	10,964
(BA) Food and drink	10,111

24.13 The data is further split into 4-digit sector codes. The following table shows the 4-digit product/service codes with most complaints.

Table 24.4: 4-Digit Product/Service Codes with Most Complaints

2-digit code and description	4-digit code and description	Number of complaints
(EE) Second hand cars	(EE02) Purchased from independent dealer	19,414
(AD) Furniture	(AD05) Upholstered furniture	10,730
(BM) Telecommunications	(BM02) Mobile phones (hardware)	10,307
(AL) Audio-visual	(AL03) TVs	9,036
(AB) Home maintenance and Improvements	(AB99) Other general building work	8,878
(BM) Telecommunications	(BM03) Mobile phones (service agreements)	8,782
(EF) Car repairs and servicing	(EF02) Independent garage	7,822
(EE) Second hand cars	(EE01) Purchased from franchise dealer	7,630
(CA) Clothing and clothing fabric	(CA02) Women's clothing	7,406
(AM) Personal computers, accessories, software and services	(AM01) Personal computers	7,362

24.14 It is interesting to note that the sectors with the greatest number of complaints at the 4-digit level do not necessarily belong to the sectors with the greatest number of complaints at the 2-digit level. This highlights the benefit of obtaining data which is as disaggregated as possible. If data is very highly aggregated into sector groups it is more likely that further analysis will be necessary to find out which areas have significant levels of consumer detriment.

24.15   As well as showing the areas where consumer detriment is present, complaint data can also be used to find out about the particular problems that consumers have in those areas.

24.16   The following chart shows what the problems complained about were for product/service code EE02 (second hand cars purchased from an independent dealer).

Figure 24.3: Consumer Complaints by Complaint Category for Product/Service Code EE02
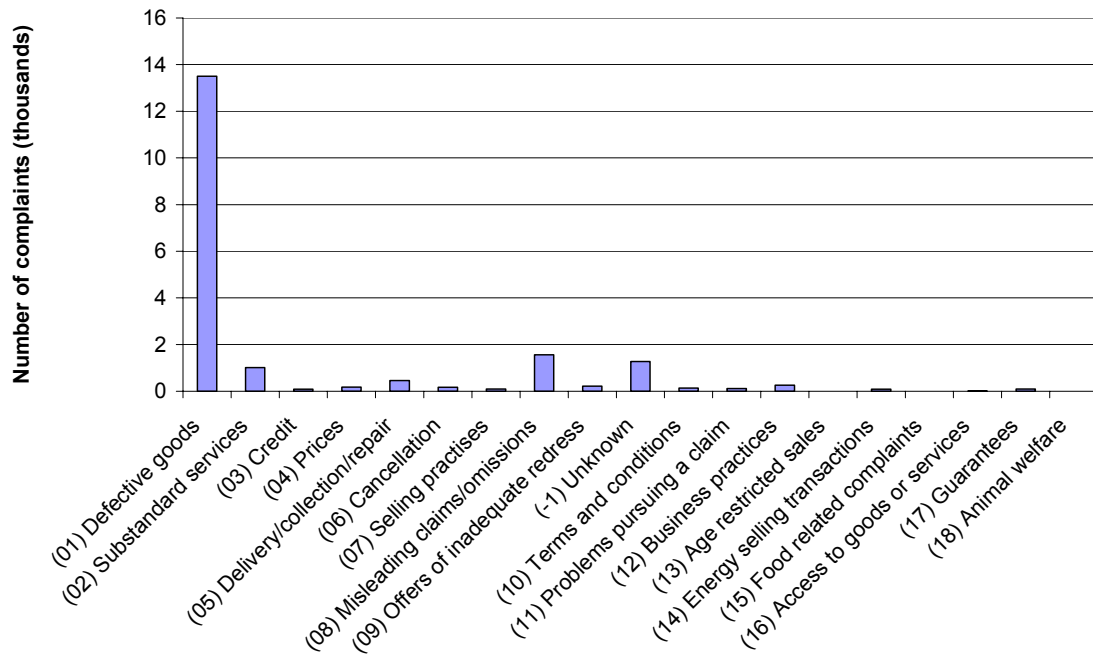
24.17   As can be seen from the above chart, by far the most common problem complained about in product/service code EE02 was defective goods.

24.18   The Consumer Direct database also provides information on the amount paid by the consumer for the good or service being complained about. This might be only part of the full cost of the product/service, for example a deposit. Complaints which did not involve a payment are referred to as zero cases.

24.19   Payment amount information could be useful in deciding which areas to prioritise for investigation. The following table gives information on payment amounts for complaint code EE.

Table 24.5: Payment Amounts for Product/Service Code EE

Product/service	Number of complaints	Zero cases	Non–zero Cases	Payment amount (£)[280]			
				Min.	Median	Average	Max.
(EE01) Purchased from franchise dealer	7,630	1,572	6,058	1	7,000	8,867	230,000
(EE02) Purchased from independent dealer	19,414	3,321	16,093	1	4,000	5,309	389,500
(EE03) Purchased privately	2,000	567	1,433	1	1,500	2,967	53,500
(EE99) Other	2,123	837	1,286	1	1,527	3,889	125,000

24.20   As can be seen from the above table, although there were most consumer complaints in code EE02 (second hands cars purchased from an independent dealer), complaints concerning cars purchased from a franchise dealer had a higher average payment amount.

24.21   If an area has a high average payment amount it might suggest that consumers are suffering greater levels of financial loss in the area. However, this is not necessarily the case because the figures refer to the value of the payment made by the consumer and not the value of the financial loss suffered.

24.22   It should also be noted that, as mentioned in section 18, consumers are more likely to complain when they are dissatisfied with products/services of a high value. Therefore the number of complaints about products/services with a low payment amount is more likely to understate the number of consumer problems than the number of complaints about products/services with a high payment amount.

24.23   The following table shows the average value of transactions for the ten 4-digit codes with most complaints.

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[280]   This refers to non-zero cases only.

Table 24.6: Average Payment Amounts for the 10 4-Digit Product/Service Codes with Most Complaints

2 digit code and description	4 digit code and description	Number of complaints	Number of non-zero[281] complaints	(Mean) average value of non-zero complaints (£)
(EE) Second hand cars	(EE02) Purchased from independent dealer	19,414	16,093	5,309
(AD) Furniture	(AD05) Upholstered furniture	10,730	8,493	1,521
(BM) Telecommunications	(BM02) Mobile phones (hardware)	10,307	6,041	121
(AL) Audio-visual	(AL03) TVs	9,036	7,166	936
(AB) Home maintenance and Improvements	(AB99) Other general building work	8,878	6,194	9,006
(BM) Telecommunications	(BM03) Mobile phones (service agreements)	8,782	2,846	122
(EF) Car repairs and servicing	(EF02) Independent garage	7,822	5,318	1,151
(EE) Second hand cars	(EE01) Purchased from franchise dealer	7,630	6,058	8,867
(CA) Clothing and clothing fabric	(CA02) Women's clothing	7,406	5,124	185
(AM) Personal computers, accessories, software and services	(AM01) Personal computers	7,362	5,777	820

24.24 As can be seen from the above table the payment amount is extremely variable. The code with the highest average payment amount is other general building work (AB99) with an average payment of £9,006. The lowest average payment amount is in (BM02) mobile phones (hardware) with an average of £121.

24.25 In conclusion, this analysis illustrates the significant value that can be obtained from analysing complaint data.   In particular, where sufficiently detailed data are available it can provide indications of:

(a) The sectors where consumers are experiencing detriment;

(b) The nature of that detriment;

(c) How detriment breaks down between different methods of purchase;

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[281] "Non zero" refers to complaints which involved a payment.

(d) The potential scope for financial detriment associated with different complaints (based on the value of the transaction).

Civic Voice Indicators

24.26 As an example of the value that can be gained from analysis of civil society representations of consumer issues, we reviewed the content of consumer campaigns which were being conducted at the time by the Consumers' Association UK (*Which?*).[282] These were:

(a) Move it – estate agents;

(b) Mortgage endowments;

(c) Switch with *Which?*;

(d) Food;

(e) Health;

(f) Personal finance;

(g) Other issues.

24.27 The campaigns take a strong position – for example in the "Move it" campaign *Which?* advocate the establishment of a statutory body to handle complaints and seek redress on behalf of consumers in relation to unsatisfactory dealings with estate agents. This campaign is supported by stories submitted by consumers to illustrate their complaints against estate agents, survey research showing low levels of confidence in estate agents, and the argument that there is widespread support for regulation in civil society and parliament.

24.28 The issue of mortgage endowment mis-selling is the subject of a long-running campaign by *Which?*. As with the "Move it" campaign the website provides background information but also invites participation both in the form of consumers writing stories of their own experience and by providing guidelines for making complaints and claims for compensation. This campaign combines general publicity on the issue, thus increasing accountability and transparency, with a specific campaign for compensation.

24.29 The "Switch with *Which?*" campaign promotes consumer choice by linking consumers to helpful web resources to facilitate switching between utilities and financial service products. Again, this campaign has a dual aspect in that it both raises awareness about

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[282] This review was carried out in July 2006.

consumer choice and in addition provides the means by which consumers can exercise choice.

24.30   *Which?* has a number of food related campaigns: children's food, food choice, and genetically modified (GM) foods. These campaigns use online resources to raise awareness of food policy issues and to increase consumer literacy and awareness of choice, but much of the campaigning is aimed at providing expert consumer representation to regulatory bodies. This raises an interesting point in that the relationship between public understanding and risk varies from market to market. In this case the arguments are not so much to do with opinions in the public sphere as with raising awareness and more traditional consumer campaigning.

24.31   There are similarities between the food campaigns and the health campaigns – a variety of "issue based" campaigns are joined which are represented on the *Which?* website sometimes as public information and sometimes through a public knowledge intervention (e.g. the information about how to make complaints to health services provides both public information about the complaints process and a guide to making complaints). Again, this combination of intervention in a policy debate with action to empower consumers is powerful.

24.32   The *Which?* approach to the financial services sector is impressive, combining 10 issue-based campaigns. Again these combine reports on traditional consumer representation activities with the provision of information that enables consumer action. For example, the campaign to promote independent financial advice both accepts the need for such advice and campaigns for increased capacity in independent advice, whilst also aiming to raise consumer awareness of its importance. The "Time for a change" issue combines public information on the various problems that have characterised financial service provision in recent years with a call for the development of corporate responsibility in financial service companies. In consultation with the financial services industry, *Which?* proposes the development of consumer policy amongst firms so that consumer interests are better represented as a hedge against potential future problems. There is also a campaign on the issue of the rise in high levels of consumer debt calling for the regulation of lending practices – again the focus is less grounded in consumer complaints than in raising awareness of a growing trend in this market and an attempt to open a dialogue with the industry. There are similar combinations of campaigning, responses to consultations by government and regulators, consumer research and guidance for consumers.

24.33   There is something powerful about these responses to consumer detriment – they recognise the importance of simultaneously giving voice to consumers, campaigning, providing evidence and enabling consumers to take action.

24.34   These campaigns are important indicators of consumer detriment because they fill the gap between consumer experience and the explicit voicing of grievances. In effect, they aggregate consumer detriment in a useful and meaningful way, even where individual consumers do not complain.

Market Power Indicators

24.35   In this section, we discuss some quite comprehensive testing of the market power indicators which we were able to carry out.   The discussion is structured under the following headings:

(a) Calculation of indicators using Amadeus data;

(b) Preliminary discussion of indicator thresholds;

(c) Calibration using data on past EC antitrust cases;

(d) Discussion of results;

(e) Revised proposals for market power indicators.

Calculation of indicators using Amadeus data

24.36   In section 20, we identified that Amadeus appeared to be the most suitable data source for many of the indicators, unless the Commission (or Eurostat) were able to collate suitable data from the statistical agencies of Member States.   For the purpose of pilot testing, we arranged a short period of access to the Amadeus database.

24.37   Using Amadeus data, we constructed a dataset covering our six suggested indicators of possible market power problems, namely:

(a) C3 concentration ratio;

(b) Herfindahl-Hirschman Index;

(c) Churn;

(d) Market share volatility;

(e) Return on capital employed (ROCE);

(f)   Profit margin.

24.38   These indicators were calculated by 4-digit NACE code, both separately for every EU Member State and on an EU-wide basis, for the year 2004. The dataset we put together also includes information on number of firms, total revenue and trade intensity, which could be used to assist in interpreting the indicator results.

24.39   In putting together this dataset, we developed procedures for downloading the relevant data from Amadeus and a complementary software tool (in Microsoft Access) for calculating the indicators from this raw data.

24.40   However, the volume of data involved in this exercise was very considerable. In order to keep the pilot testing within reasonable bounds, we therefore limited the company data we extracted from the database to companies with a turnover above $1m.[283] Even then, restrictions on the maximum size of each download meant that 20 separate downloads were required to extract all the relevant data.

24.41   We recognise that the size threshold we used in downloading data could bias the results of the indicators. For instance, it will tend to bias in an upwards direction estimated concentration ratios, and bias estimated churn downwards. The extent of the bias could differ between sectors, which in turn could lead to the wrong sectors being selected.

24.42   For instance, consider a hypothetical industry containing many small companies, with one company earning revenues slightly above $1m. Even though in reality the sector might be competitive, the data extracted from Amadeus (using the $1m cut-off threshold) would make the sector appear to be a monopoly, with a concentration ratio of 100 per cent. Although this is an extreme example, it illustrates the possible drawbacks of applying a size threshold to the data.

24.43   In addition to the above, we found that the procedures required to extract the data we needed from Amadeus are somewhat complicated, which probably reflects the unusual use to which we were putting the database.

24.44   Hence, if the Commission takes forward a market monitoring exercise using indicators based on Amadeus data, we suggest that it might be worth discussing with Bureau van Dijk the possibility of a bespoke arrangement for data provision. For instance, this might involve Bureau van Dijk providing the required data to the Commission in a format which is ready for use, without the need for time-consuming downloads.[284] Ideally, this would allow the Commission to use data for companies of all sizes.

24.45   Another problem we encountered was that for some companies specific items of data were not available from the database. In cases where this meant that a particular indicator could not be calculated, this raised the question about what should be assumed. For example, where a figure for profit margin was not available, should it be assumed that the company concerned had a profit margin above or below the threshold used to identify possible problem markets? (For pilot testing purposes, we assumed values of zero in such cases, which meant that sectors for which profit margin data were missing would not be selected by our indicators.)

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[283]   If a similar threshold is used in future in computing the market power indicators, it would probably be more appropriate to define the threshold in euros rather than US dollars.

[284]   Europe Economics has not discussed this issue with Bureau van Dijk, and hence we do not know what would be feasible or what such a bespoke solution would cost.

24.46   Another problem we came across was that the database did not appear to give NACE codes for some companies. This meant that data for those companies could not be taken into account in calculating our indicators.

24.47   Having downloaded the raw data and calculated the indicators in Microsoft Access, we exported the results into an Excel spreadsheet where we could more easily explore the effect of using different thresholds in combing the various indicators.

Preliminary discussion of indicator thresholds

24.48   In section 17, we discussed a suggested methodology for combining market power indicators. This methodology required thresholds to be specified for each indicator (e.g. to determine what counts as "high concentration"), and we discussed a number of ways in which thresholds might be derived.

24.49   Below we provide some preliminary discussion of thresholds for each indicator. Later, we discuss a calibration exercise which we used to seek to derive an optimal set of thresholds.

Trade intensity

24.50   The trade intensity indicator is used to decide whether an industry should be analysed at EU or national level. Although allocating markets into these two groups is over-simplistic, in our view it would be difficult to do anything more sophisticated within a top-down exercise.

24.51   We calculate trade intensity as the proportion of imports and exports to total production, calculated at the level of the whole EU. The rationale behind this indicator is that the greater the ratio of imports and exports to total production, the more likely it is that competitive pressures which define the market structure act at EU rather than national level.

24.52   In their paper "Industrial concentration and market integration in the European Union",[285] Lyons et al find that the level of integration differs across the EU. Using data from the late 80s they develop a method for endogenously determining the most likely geographic market for an industry.

24.53   The authors calculate trade thresholds for four EU Member States. The trade thresholds they calculate are: 0.09 for Germany; 0.65 for France, 0.25 for Italy; and 0.31 for the UK. If trade in an industry exceeds a country's trade threshold then the authors assume that the industry is EU-wide for the purposes of defining the relevant market.

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[285]   Economica (2001) 68, 1-26.

24.54 Since this research used data from the late 1980s it is likely that each country's trade threshold would have changed since then. However, the research forms a useful precedent in that it uses sectoral trade intensity to decide whether a market is national or EU-wide.

C3 ratio (three-firm concentration ratio)

24.55 This rationale behind using this indicator is that firms in a highly concentrated market often have a high degree of market power.

24.56 The UK's Cabinet Office publishes Regulatory Impact Assessment Guidance which is designed for use in assessing the likely impacts of policy change. In its section on competition assessment the Cabinet Office lists nine competition filter test questions. If the filter test results in more "yes" than "no" answers, this indicates that there is potential for significant competition impacts.

24.57 The third question is "in the market(s) affected by the new regulation, do the largest three firms together have at least 50 per cent market share?"

24.58 Following this precedent, we therefore consider that a C3 ratio of around 50 per cent would be an appropriate threshold for this indicator.

HHI

24.59 The US's Department of Justice and Federal Trade Commission use the Herfindahl-Hirschman Index (HHI) to measure market concentration for the purposes of antitrust enforcement.[286]

24.60 According to its 1992 Horizontal Merger Guidelines, the Department of Justice will regard a market in which the post-merger HHI is below 1,000 as "unconcentrated," between 1,000 and 1,800 as "moderately concentrated," and above 1,800 as "highly concentrated."

24.61 In light of this, we consider a suitable threshold for this indicator to be around 1,800.

Other indicators

24.62 For the other indicators, the thresholds we used were based entirely on the calibration exercise discussed below, and not on any *a priori* evidence.

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[286] To reiterate our explanation earlier in the report, the HHI of a market is calculated by summing the squares of the percentage market shares held by the respective firms. For example, an industry consisting of two firms with market shares of 70 per and 30 per cent has an HHI of $70^2 + 30^2$, or 5,800.

Calibration using data on past EC antitrust cases

24.63   In order to decide on which thresholds to use we decided to analyse whether there was any link between the industries identified as problematic by the indicators and the industries where there had been EC antitrust cases since 1977.

24.64   This approach implicitly assumes that the number of past EC antitrust cases in a sector provides a (very approximate) guide as to where market power has been a problem in the past.

24.65   However, there were a number of weaknesses to this approach. For example:

(a)   The data used to calculate the indicators does not relate to the same year as the antitrust cases;

(b)   Some of the antitrust investigations resulted in the parties being cleared;[287]

(c)   The number of antitrust cases in an industry does not necessarily indicate the extent of consumer detriment arising from market power.

24.66   Nonetheless, we suggest that this calibration exercise is a useful innovation compared with the alternative of simply guessing which thresholds to use for some of the indicators.

24.67   Our approach was to calculate the correlation coefficient between the number of antitrust cases for a NACE code and the percentage of the national markets (or the EU market) with the same NACE code that were identified as problematic by our indicators.[288,289]

24.68   The calibration process involved starting with an initial set of thresholds and then, for each indicator in sequence, carrying out sensitivity analysis to find the value that gave us the highest correlation coefficient. We did this by defining an increment for the indicator (e.g. 0.01 for trade intensity) and finding the value where moving one increment either way reduced the correlation coefficient. Once we had done this for all of the indicators, we repeated the cycle starting again with the first indicator, until the process produced no further changes to any of the thresholds.

24.69   This process has the drawback that, although we found a local optimum, we cannot be sure that there were not multiple sets of thresholds that represented local optima, and hence we cannot be completely sure that we found the best performing thresholds.

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[287]   Ideally, we would have done the calibration using a dataset included only those antitrust cases where a genuine problem was found. However, we did not have access to a statistical breakdown of antitrust cases by both NACE code and outcome.

[288]   Where a NACE code was categorised as an EU-wide market, this latter variable was either 0 or 100 per cent. A wider range of percentage values was possible for those NACE codes which were categorised as national markets.

[289]   The Pearson correlation coefficient assumes that the variables are normally distributed.

24.70 Varying the trade-intensity threshold has the effect of changing the number of markets that are classified as EU-wide rather than national. The lower this value, the more markets are classified as EU-wide. Few if any EU-wide markets tend to be identified as problematic using our indicators, because once companies across the EU are included, concentration tends to be lower. For this indicator we found the best results were achieved when trade-intensity was set to 0.10.

24.71 The C3 and HHI ratios are highly correlated and our iterative testing found that they appear to add little to each other. Hence, we recommend using only one of them. Although the best performing set of thresholds that we found used the HHI indicator, it performed only marginally better than the best performing set of thresholds using the C3 indicator. (In fact, the correlation coefficient for the two sets of thresholds only differed once 3 decimal places were examined!) Since the C3 ratio requires less data to calculate, we recommend dropping the HHI indicator.

24.72 We also found that including the market share change indicator tended to reduce the correlation coefficient. Since this indicator is also quite data intensive, we recommend dropping it and focusing only on churn.

24.73 Table 24.7 below contains the best performing sets of indicators found using the calibration process. The second column shows the set of thresholds using HHI as the concentration indicator, whereas the third column shows the thresholds using C3 as the concentration indicator. The fourth column (which represents our recommendation) is similar to the third column, but rounds the threshold values to avoid spurious precision given the imperfections in the calibration process.

Table 24.7: Thresholds

	Best performing set using HHI	Best performing set using C3	Rounded values using C3
Trade intensity	0.10	0.10	0.10
C3	n/a	0.51	0.50
HHI	1,750	n/a	n/a
Market share change (0 = switched off)	0	0	0
Churn (%)	20	20	20
Profit margin (%)	15	15	15
ROCE (%)	56	56	55

24.74 We note that the recommended values in the final column appear intuitively plausible. Indeed, the value of around 0.5 for the C3 ratio which falls out of the calibration exercise exactly matches the value which we identified earlier on the basis of precedent.

24.75 Table 24.8 below shows the percentage of national markets selected by each set of thresholds when applied in isolation. The figures illustrate that the different indicators do

not contribute equally to determining which markets finally get selected as problematic by the combined set of indicators. For instance, because the ROCE indicator selects fewer markets, it plays a more decisive role in which markets are selected overall.

Table 24.8: Percentage of EU and National Markets Selected by Each Threshold

	Best performing set using HHI	Best performing set using C3	Rounded values using C3
C3	n/a	63	63
HHI	55	n/a	n/a
Churn	35	35	35
Profit margin	9	9	9
ROCE	8	8	8

24.76   Table 24.9 shows summary statistics for each set of thresholds. Each set of thresholds has a correlation coefficient of just over 0.3.

Table 24.9: Summary Statistics for Each Set of Thresholds

	Best performing set of thresholds, using HHI	Best performing set of thresholds, using C3	Rounded values for thresholds, using C3
Number of EU markets	172	172	172
Number of national markets	5,464	5,464	5,464
Number of problem EU markets	0	0	0
Number of problem national markets	261	282	288
Correlation coefficient	0.308	0.306	0.301

24.77   Cohen (1988) suggested the following interpretations for correlations in psychological research:

Correlation	Negative	Positive
Small	−0.29 to −0.10	0.10 to 0.29
Medium	−0.49 to −0.30	0.30 to 0.49
Large	−1.00 to −0.50	0.50 to 1.00

24.78   A correlation coefficient of 0.3 therefore indicates a medium positive correlation between the number of antitrust cases and the percentage of markets identified as problematic by our indicators.

24.79   The following chart (based on the rounded set of threshold values) shows the relationship between the number of times a particular NACE code was selected as a potential problem market by our indicators and the number of EC antitrust cases that had occurred

in that NACE code. It can be seen that although there is a positive correlation between the two variables, this correlation does not appear particularly strong.

Figure 24.4: Relationship between Indicator Results and Number of Antitrust Cases
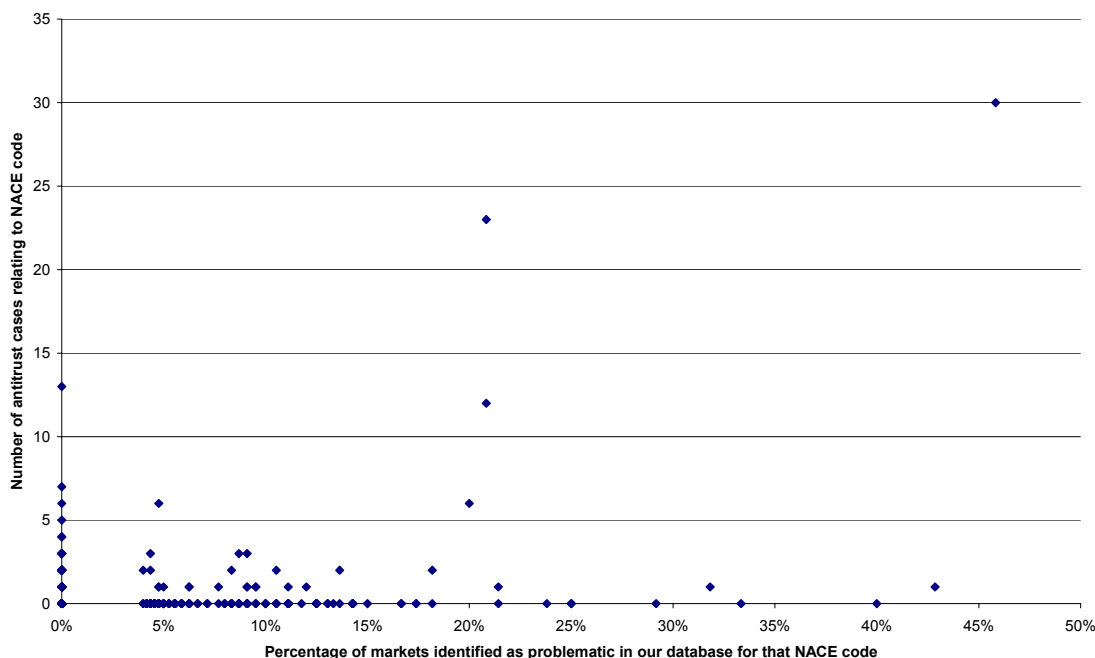
Discussion of results

24.80   How meaningful are the results obtained from our market power indicators, when they are combined using our recommended set of thresholds? In answering this question, we can draw on two types of evidence:

(a) The correlation coefficient obtained from the above exercise, for the recommended set of thresholds;

(b) The reasonableness (or otherwise) of the actual sectors which have been selected by our indicators.

24.81   In relation to the correlation coefficient, we consider that a value of 0.3 is surprisingly high given the imperfections in our market power indicators. As discussed earlier in our report (particularly in section 20 and earlier in this section), these include:

(a) Problems relating to market definition;

(b) Theoretical weaknesses in the indicators themselves;

(c) Drawbacks associated with use of the Amadeus database for this specific purpose;

(d)   Weaknesses in the calibration process used to derive the thresholds.

24.82   Despite all these factors, we have managed to find a correlation of 0.3 between the results from our market power indicators and a (very approximate) indicator of where market power problems have arisen in the past. This suggests that, while the results should be treated with care, there may be some value in them.

24.83   As regards the second type of evidence, the following table gives the NACE codes identified by the database as having over two (national) problem markets. In our judgment, some of these sectors may arguably be plausible candidates for possible "problem markets", although other sectors seem unlikely to be associated with market power problems. However, since spurious results would be weeded out by desk officers during the stage 2 process (see section 17 and appendix 4), this again suggests that the indicators may have some value.

Table 24.10: NACE Codes with the Greatest Number of (National) Problem Markets

[✂]

24.84   As shown earlier in Table 24.9, all markets identified as potentially problematic were national rather than EU-wide. It is possible to product separate tables of the possible problem sectors for each Member State. For the purpose of illustration, the results for the UK, Germany and Latvia are shown below.

Table 24.11: NACE Codes Identified as Problematic in the UK

[✂]

Table 24.12: NACE Codes Identified as Problematic in Germany

[✂]

Table 24.13: NACE Codes Identified as Problematic in Latvia

[✂]

24.85   One drawback of the market power indicators is that sectors are more likely to be identified as problematic in small countries, because there will on average tend to be fewer firms in each sector. This is shown by the chart below, which plots the number of problem markets in each country against population size.

Figure 24.5: Effect of Country Size of Number of Problem Sectors
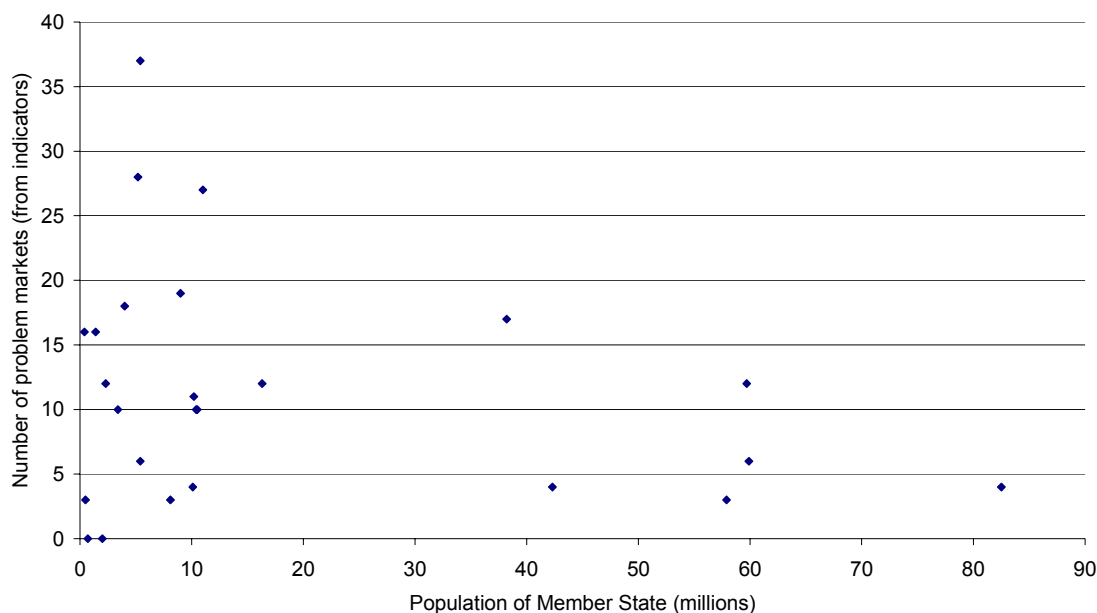
24.86 This does not necessarily mean that small countries actually have more market power problems than large countries. For instance, in some small countries imports may play a larger role than elsewhere in providing competitive pressure. However, for reasons of tractability the combination methodology looks at trade intensity only over the EU as a whole, and therefore does not take account of differences in the role played by imports between Member States.

24.87 This problem associated with country size should be treated as another qualification surrounding any results obtained from the market power indicators.

Revised proposals for market power indicators

24.88 Our conclusion is that the market power indicators and combination methodology *may possibly* have some value. However, we would emphasise that further experience in using them is required to draw definite conclusions, since they are subject to numerous weaknesses, both theoretical and practical. Further, while they are not altogether discouraging, the results from pilot testing cannot be treated as conclusive.

24.89 In light of this uncertainty, we consider that it is for the Commission to decide whether or not it wishes to invest resources using these indicators for a period of time. If it decides to do so, we would recommend evaluating them at a future date to see whether they have provided any valuable information.

24.90 As regards data sources, we have shown that it is possible to calculate the indicators with data from Amadeus, although we did encounter some problems. As discussed in section

20, it would probably be preferable to use data from national statistical agencies for some of the indicators (e.g. C3), if comparable data could be obtained by the Commission.

24.91   In light of the results from pilot testing, we recommend dropping the HHI and market share change indicators, and focusing on the following:

(a)   Trade intensity (to decide whether to treat each NACE code as an EU-wide or national market);

(b)   C3 ratio;

(c)   Churn;

(d)   ROCE;

(e)   Profit margin.

24.92   Our revised proposals for a combination methodology are shown in Table 24.14.

Table 24.14: Suggested Combination Methodology for Market Power Indicators

Sector goes through to stage 2 if it has…				
High concentration	**AND**	Possible barriers to entry or expansion	**AND**	High profitability
Indicated by…				
High C3 ratio		Low churn		High ROCE
				OR
				High profit margin

24.93   Based on the calibration exercise, a possible set of thresholds to use is given below in Table 24.15.

Table 24.15: Possible Set of Thresholds

	Rounded values using C3
Trade intensity	0.10
C3	0.50
Churn	20%
Profit margin	15
ROCE	55

24.94 If the Commission does decide to use these market power indicators, we would encourage it to refine the details of the methodology (e.g. the threshold values) in light of further experience.

24.95 Moreover, we would again emphasise that, because of the problems associated with these indicators, the Commission should be very careful in interpreting results.[290]

Information Deficit Indicators

24.96 Section 21 described how survey questions might be used to construct information deficit indicators. These questions were tested as part of the cognitive testing undertaken by Ipsos-MORI (see section 22 and the separate Ipsos-MORI document).

24.97 Ipsos-MORI found a number of problems with the two relevant survey questions, the drafting of which has been changed in light of their findings (see proposed questionnaire).

24.98 We have also examined the actual answers given by respondents to this question. As mentioned in Ipsos-MORI's document, none of the Polish respondents were able to think of any sectors, and therefore we only have data from the UK. The answers given by the 12 UK respondents are shown in the table below.

Table 24.16: UK Responses to Information Deficit Survey Questions

Respondent	Q23	Q24
1	Computers	MP3 players
	Mobile phones	Ipod
	Cars	
2		Washing machine
3	Double-glazing	Phone service
4	Electrical goods: TVs	TV-HD
5	Show-house	
	Sewing machine	
	Blinds, sofa	
	Gas fireplace	
6	Computer	Computer
	Car	Lawnmower
	Shampoo-toiletries	
7	Telephone service	Computer
		Mobile
8	Special adjustable beds for disabled	Recycling crusher

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[290] We would reiterate that it cannot be assumed that there is a market power problem in a sector solely on the basis of these indicators. Similarly, there may be market power problems in sectors which are not selected by these indicators.

		Computer
9	Camera	Computer
10		Electricity supply
11	Contract mobile	Contract phone
12	Computer	Television

24.99 This table includes a large number of technological products, with computers mentioned seven times. In addition, a number of respondents referred to utility packages (electricity supply, telephone services) and mobile phone deals.

24.100 We are somewhat doubtful as to whether these questions are identifying the right sort of sectors. This is because, while technological products may often be complex, the market itself often provides comparative information on the products which are available (e.g. *Which?* reports in the UK). In our view, there is no obvious case for government intervention (e.g. to provide information) in relation to these goods.[291]

24.101 Given both the problems that interviewees had understanding the questions (resulting in no responses at all in Poland), and the dubious relevance of the answers which were obtained in the UK, it is not clear that the Commission should proceed with this indicator.

24.102 However, this would mean that there are no indicators specifically aimed at identifying information problems. While both the civic voice indicators and the consumer complaint indicator may pick up some problems resulting from consumers' lack of information, problems which arise *without consumers knowing about them at all* may be missed. In light of this, we have left these two questions in the proposed survey for now, and we consider that it is for the Commission to decide whether to take them out or leave them in.

24.103 One solution would be to test the redrafted questions by including them in the first stage of any quantitative surveying undertaken by the Commission (e.g. including them in a small-scale quantitative pilot before full-scale surveying begins). A final decision on whether to proceed with them could then be taken in light of the results.

24.104 We also note that:

(a) Most respondents focused on goods rather than services, whereas some of the widely quoted examples of "credence goods" are services (e.g. financial advisors, legal advice).

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[291] The situation *may* be somewhat different in relation to utility packages and mobile phone deals, where arguably the proliferation of tariffs may have led to avoidable consumer confusion. This links with the discussion in section 8 on how firms can reduce price search through product differentiation. However, even for these services the case for regulatory intervention if far from clear-cut.

(b) There appears to be little difference in the types of goods identified in response to Q23 and Q24, which may suggest that respondents treated them as being virtually identical.

24.105 In light of this, if the Commission does make use of the "information deficit" indicators, there could be merit in altering the questions so that one question asks about information problems relating to goods, and the other about problems relating to services.

APPENDICES TO THE REPORT

APPENDIX 1: LITERATURE REVIEW SUMMARIES

A1.1   This appendix contains summaries of literature which we covered in our multi-disciplinary survey of existing research. A complete list of the documents we have covered is given in the table below (spanning the next four pages).

Table A1.1: List of Papers Covered in Literature Review

	ECONOMICS
General papers on consumer and competition policy	
*	Vickers, J., "Economics for consumer policy", British Academy Keynes Lecture, 2003
*	Waterson, M., "The role of consumers in competition policy", International Journal of Industrial Organization, 21, 2003
Welfare loss from market power	
*	Ho, Y., Lee, A. and Brown, D., "Competition, consumer welfare, and the social cost of monopoly", Cowles Foundation Discussion Paper 1528, 2005
*	Vaughan, R.N., "Dynamic deadweight loss in monopolistic and related markets", Centre for Economic and Social Evolution, 2004
*	Fernandez de Guevara, J. and Maudos, J., "Measuring welfare loss of market power: an application to European banks", Applied Economics Letters, 11, 2004
*	Berger, A and Hannan, T., "The efficiency cost of market power in the banking industry: a test of the "quiet life" and related hypothesis", The Review of Economics and Statistics, 80, 1, 1998
*	Dixon, R, Gunther, A and Mahmood, M., "The cost of monopoly in Australian manufacturing", The Australian Economic Review, 34, 4, 2001
*	Dobson, P.W., Waterson, M. and Chu, A.,"The Welfare Consequences of the Exercise of Buyer Power", Research paper for the OFT, September 1998
Marshallian versus Hicksian measurement of welfare	
*	Hausman, J., "Exact consumer's surplus and deadweight loss", American Economic Review, 4, 71, 1981
*	Hausman, J., Newey, W., "Nonparametric estimation of exact consumer surplus and deadweight loss", Econometrica, 63, 6, 1995
*	Irvine, I. and Sims, W., "Measuring consumer surplus with unknown Hicksian demands", American Economic Review, 88, 1, 1998
*	Lavergne, P et al, "Welfare losses due to market power, Hicksian versus Marshallian measurement", American Journal of Agricultural Economics, 83, 1, 2001
Estimating consumer savings from competition policy	
*	Nelson, P., and Sun, S., "Consumer savings from merger enforcement: a review of the antitrust agencies' estimates", Antitrust law journal, Vol 69 pp 921-960, 2002
*	Crandall, R.W., and Winston, C., "Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence", The Journal of Economic Perspectives, Vol. 17, No.4 (Autumn, 2003) 3-26
*	Werden, G.J., "The Effect of Antitrust Policy on Consumer Welfare: What Crandall and Winston Overlook", DOJ economic analysis group discussion paper. 30. 2nd January 2003
*	Davies, S., Majumdar, A., "The developments of targets for consumer savings arising from

	competition policy", OFT, 2002
Distributional effects of monopoly power	
*	Creedy, J. and Dixon, R., "The Relative Burden of Monopoly on Households with Different Incomes", Economica (1998) 65, 285-93
*	Creedy, J. and Dixon, R., "The distributional effects of monopoly", Australian Economic Papers, 38, 1999
General papers on imperfect information and consumer welfare	
*	"Consumer Detriment under Conditions of Imperfect Information", prepared for the OFT by London Economics, Research Paper 11, OFT, August 1997
*	Hunter, J., Ioannidis, C., Iossa, E. and Skerratt, L., "Measuring consumer detriment under conditions of imperfect information", report prepared for the Office of Fair Trade, 2001
*	Garella, P.G, and Petrakis, E., "Minimum Quality Standards and Consumers' Information", (mimeo) Department of Economics, University of Bologna and Department of Economics, University of Crete, February 16, 2005
Search and switching costs	
*	Klemperer, P. (1995). "Competition when consumers have switching costs: an overview with applications to industrial organization, macroeconomics and international trade", Review of Economic Studies, Vol. 62, 515-539
*	Shy, O (2002) "A quick-and-easy method for estimating switching costs" International Journal of Industrial Organisation, Vol 20, 71-87
*	Carlsson, F., Lofgren, A., "Airline choice, switching costs and frequent flyer programs", mimeo, Gothenburg University, 2004
*	Hortacsu, A. and Syverson, C., "Product differentiation, search costs, and competition in the mutual fund industry: a case study of S&P index funds", Quarterly Journal of Economics, 2004
*	Waddams Price, C., "Reforming household energy markets: some welfare effects in the United Kingdom", mimeo, University of East Anglia, 2004
Firms' strategies to reduce price search by consumers[292]	
*	Ireland, N., "Firms' strategies for reducing the effectiveness of consumer price search", University of Warwick, 627, 2002
*	Wilson C., "Price deception, market power and consumer policy, Centre for Competition Policy W.P., 04-01, 2004
Market monitoring indicators	
*	"Empirical indicators for market investigations", Prepared for the OFT by NERA, September 2004 *[our summary of this paper appears in section 17 rather than Appendix 1]*
*	Grout, P., and Sonderegger, S., "Predicting cartels", Economic discussion paper, Office of Fair Trading, March 2005
*	Matraves, C., and Moffatt, P., "Industrial Concentration and Market Integration in the European Union", Lyons, B., Economica (2001) 68, 1-26
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Vickers, J., "Economics for consumer policy", British Academy Keynes Lecture, 2003

Synopsis: this paper discusses underlying economic and competition motivations for consumer policy. It summaries some potential ways in which consumers cam be adversely affected by markets.

Full summary: areas covered by consumer policy include products (e.g. safety requirements), suppliers (e.g. professional qualifications), marketing methods (e.g. advertising), purchasing processes (e.g. from home), contract terms, and industries (e.g. codes of practice). The fundamental problems it seeks to address are: duress/undue pressure (allow cooling-off), pre-purchase information (disclosure and product requirements, bans on misleading adverts), and surprises post-purchase (regulation of contract terms).

The possible advantages of low-level consumer regulation that merely prevents misleading information are considered, including that potentially efficient transactions will not be excluded and that the market will choose the best contract terms. Then the "lemons" problem is mentioned, where asymmetric market information could lead to the break down of efficient transactions. This may be countered by warranties or reputation, but these may only work where interaction is frequent. It is suggested that regulation may be better aimed at improving information than restricting market opportunities, but providing directly useful information is difficult under bounded rationality.

Switching costs may arise from searching for compatible technologies in two-stage markets, from the hassle of changing or from the costs of learning new alternatives. Contracts can also be designed to provide (efficient) incentives to form long-term co-ordination. One result is that consumers may face product competition that consists of a bargain followed by a "rip-off". This creates problems because better overall deals could have been obtained with different agreements. The other problem is that consumers do not realise the non-bargain will follow. Consumers are boundedly rational and so cannot evaluate the value of all the terms in contracts including those that relate to unexpected withdrawal from the agreements by the consumers. The rules on contract terms relate only to standard contract terms, not individually negotiated ones so still allow specialised transactions. Consumer policy may be micro-competition policy, e.g. to stop exploitation from lock-in.

A model follows that specifies that when there is no commitment (and "quality" is discovered later) the competitive equilibrium will involve lower price and lower quality than the efficient outcome. In this model the loss in consumer welfare is equal to the difference in utility in the two states multiplied by the number of consumers who buy the worse state, plus the lost welfare of those who would have bought at the higher utility level (if that was offered) but do not currently. If the firms can mislead over quality the lost welfare is greater because it also contains the welfare given up (opportunity cost) of the additional consumers who switch to this product.

If firms care about the future and one assumes that if they "cheat" on their quality promises profits will fall to zero, then it is possible to get an equilibrium with higher quality but (unless firms do not discount future effects) this will still involve below-efficient quality and provide firms with a positive (supra-normal) profit in order to motivate them. Thus even with credibility the quality measure will

still be inefficiently low, with the incentive to cheat inversely related to price. In other models it has been found that when consumers believe that prices in an after market would stay constant, then even with competition in the primary market, after market prices will remain above marginal cost (Borenstein 2000).

Waterson, M., "The role of consumers in competition policy", International Journal of Industrial Organization, 21, 2003

Synopsis: this paper develops the idea that consumers' behaviour matters significantly from the viewpoint of industry performance. This is examined through some theoretical propositions on search and switching behaviour, and case study examples. These demonstrate how, even in potentially competitive industries, reluctance by consumers to search or to switch suppliers can lead to sub-competitive outcomes.

Full summary: if every consumer believes the market is competitive (and hence prices are equal) they will not conduct any search. If consumers check the price of only one firm prior to purchase, pricing will be at the (individual) monopoly level, regardless of the number of firms in the market. As search costs increase, the number of active searchers falls, and average prices rise.

Switching costs: in markets where firms can discriminate between old and new customers and switching costs are significant, prices are lower in the first (new) period and higher in the second (old) period than if there were no switching costs in the second period. In the long term, prices and profits will increase with higher switching costs. Personal banking and motor insurance are both concentrated but banking has lower switching rates and is also dramatically more profitable. In car insurance annual contracts encourage change and a client's reputation that has been built up with the insurer via their claims background can be easily passed on. However, in banking there can be problems changing direct debits, and the availability of credit may be damaged after a switch. A survey suggested that over half of people thought it would take at least a day's effort to switch energy supplier.

The paper goes on to discuss the changes that have helped reduce search and switching costs in two markets. In contraceptive sheaths (characterised by relaxed advertising regulations, increased demand, independent European quality standards, consumer attitudes to the nature of the product, and consumer willingness to search) previous attempts to control the market that were not customer-focused (such as a selective price control) seem to have failed. In petrol retailing, non-price competition was greatly reduced when all petrol had to be rated according to the "star" system, which greatly reduced brand power and led to petrol being treated as a homogenous good. The enforcement of prominent price adverts allowed prices to be compared easily when driving.

Consumers also need help in challenging firms, so intervention in this area could increase welfare. There is a need to review why some industries sell one-year contracts (insurance) and some use indefinite variable price arrangements (energy). Action to stimulate consumers may be best in relatively mature markets with stable dominant firms without significant entry. Reducing search costs such as centrally collecting price information may help cartel formation. Thus policy may be better aimed at reducing switching costs rather than search costs. Firms often respond to attempts to reduce search costs (e.g. the internet) by increasing product differentiation and switching costs.

Ho, Y., Lee, A. and Brown, D., "Competition, consumer welfare, and the social cost of monopoly", Cowles Foundation Discussion Paper 1528, 2005

Synopsis: conventional deadweight loss measures of the social cost of monopoly ignore, among other things, the social cost of inducing competition and thus cannot accurately capture the loss in social welfare. This paper discusses an alternative method of measuring the social cost of monopoly. Using elements of general equilibrium theory, the authors propose a social cost metric where the benchmark is the Pareto optimal state of the economy that uses the least amount of resources, consistent with consumers' utility levels in the monopolized state. If the primary goal of antitrust policy is the enhancement of consumer welfare, then the proper benchmark is Pareto optimality, not simply competitive markets. The paper discusses implications for antitrust law and practical applications for allegations of monopoly power given a history of price-demand observations.

Full summary: the deadweight loss triangle (the sum of consumers' and producers' lost surplus) is unreliable because:

1) It is *money-metric* and does not consider distribution and relative utility levels (because consumers may place different values on extra money).

2) It *assumes profit maximising* firms, a questionable assumption given (for example) imperfect information, the possibility that owners may have other interactions with the firm, political opposition, and principal-agent relationships. Cost minimization may be a better model of behaviour.

3) It ignores the *social cost of inducing*. The atomism of firms will require new firms to enter, which will mean that resources are transferred from other industries having general equilibrium effects. There will be no costless creation of new firms, and the result may be an overall reduction in social surplus. The direct comparison would require cost and demand conditions to be the same under both market structures.

The alternative counterfactual benchmark suggested is a state of Pareto optimality (in which everyone including shareholders is at least as well off). This is achievable (by benevolent social planning, assuming perfect information) because, in line with the second welfare theorem, every Pareto optimal state can be reached via competitive equilibrium with lump-sum transfers (the first welfare theorem states that every competitive equilibrium is Pareto optimal).

Theoretically this state of the economy can be solved for by using general equilibrium conditions such as that consumers equate their marginal rates of substitution (and thus cannot be made better off by trading goods among themselves). Producers equate their marginal rates of transformation (thus cannot produce more by trading inputs), and MRS = MRT because if firms change their output schedules they cannot produce more while keeping consumers at the same level of utility. Thus there are follow-on conditions such as pricing, which is always at marginal cost in the Pareto optimum state. If utility and production functions (and inputs/resources) are known, these equations can be solved using Lagrange multipliers. There are no systematic relationships between such estimates and the deadweight loss. The article notes that the same

harm is done to efficiency conditions if prices below marginal cost are charged (predatory pricing), independently of whether these amounts can be recovered or not.

The data more likely to be available (rather than utility and production functions) are market data with a history of equilibrium points. The equilibrium inequalities needed to solve for the necessary functions are:

1) The Afriat inequalities for each consumer (which link utility levels and marginal utilities [unknown] to demand and prices) and the budget constraints; and

2) Varian's cost-minimizing inequalities for each firm (a finite number of linear inequalities derived from the observation of firms' outputs, factor demands and factor prices and which solve for a single parameter to find a continuous monotonic [now quasi concave] function) and non-negative profit conditions. These processes should then be sufficient to produce the necessary functions to solve the optimisation problem, giving all consumers the current levels of utility.

Vaughan, R.N., "Dynamic deadweight loss in monopolistic and related markets", Centre for Economic and Social Evolution, 2004

Synopsis: this paper constructs a framework in which welfare losses over time generated by alternative market structures may be estimated. It develops an adjustment cost model of the firm under imperfect competition, and determines consequent industry equilibria. A dynamic analogue of Harberger's measure of welfare loss is specified, which for the case of a monopoly industry can be expressed as a function solely of Tobin's average q. The welfare measures calculated are on the basis of the market's expectations of the future profitability of firms; such measures allow a significant additional set of data to be used to construct a forward looking measure of welfare loss, and thus augment existing measures of industry appraisal. This returns back to the partial equilibrium deadweight loss, but bases estimates on stock market valuations.

Full summary: The paper does not argue against monopoly and says it may be a necessary incentive for future entry and investment. One strategy would be to look at the persistence of welfare loss in much the same way as consideration of the persistence of profits. This paper is based on the principle that in perfectly competitive markets the value of "Tobin's q" (the ratio between the stock market value of capital and the cost of acquiring that capital) will equate to one (i.e. the cost of expansion will equal the expected rewards). In monopolised industries firms will achieve monopoly rents and the financial markets will capitalise these rents and the capital value will exceed the cost. This has advantages in explicitly accounting for the expected duration of the market power; it looks at the future, which is more relevant for policy making, and has less demanding data requirements.

A model is created that assumes (for example) a linear homogenous production function and finds that factor input costs must equal their marginal products. With constant returns to scale an equation is formed for Tobin's q using marginal cost, market price and quantity and capital cost. Long-run equilibrium for monopoly where growth in industry supply equals growth in industry demand is characterised. In a Cournot model with no entry, stable prices and output require zero growth of all firms, or the growth of the most efficient firm is zero. For monopolistic competition there is a fixed entry cost and a zero profit condition.

These models are then compared with the price and output in perfect competition in partial equilibrium, but focus on the discounted or dynamic welfare loss. Dynamic deadweight loss is expressed as a proportion of the firm's current valuation. This is a function solely of Tobin's q for monopoly, whereas for other market structures other information is required, such as firms' knowledge of industry responses to output expansion, and market shares. The values are still based on long-run equilibrium because otherwise margins are unknown. This amount will underestimate welfare loss in any period when price is less than marginal cost.

The calculation of the dynamic deadweight welfare loss for monopoly simply requires knowledge of q. For monopoly the median values found were 1.25 (and the mean 1.52), implying that a tenth of the firm's value is dynamic deadweight welfare loss (the cumulative capitalisation of market power). The paper then compares this estimate with annual sales figures as in other estimates, using the assumption that demand and output are growing at a constant rate. The conversion is done by discounting by the difference between the interest rate and the constant

growth rate. The static deadweight welfare loss in this model using general estimates is 3.1 per cent of output, which agrees with other estimates (although these are based on *ex-post* information, not expectations). At the firm level these two may not be similar because it will depend on how persistent the market believes the monopoly profits to be; the rank coefficient is only significant at 90 per cent.

Fernandez de Guevara, J. and Maudos, J., "Measuring welfare loss of market power: an application to European banks", Applied Economics Letters, 11, 2004

Synopsis: In this paper the authors use the traditional methodology inspired by Haberger (1954) to measure market power and the welfare loss due to market power in the European banking industry.

Full summary: the authors assume that banks face a negatively sloped demand curve for loans and a positively sloped supply curve for deposits, and that banks choose the level of deposits and loans within a framework of Cournot competition.

The Lerner index for loans is defined as the difference between the interest rate received on loans and the marginal (financial and operating) costs, as a fraction of the interest rate. The Lerner index for deposits is analogously defined as the difference between the interest rate paid in the interbank markets and the sum of the interest paid on deposits and the marginal operating costs, as a fraction of the interest rate on deposits.

They then compute the deadweight loss and the reduction in consumer welfare brought about by imperfect competition as a fraction of GDP using Haberger's intuition that, under some circumstances, the welfare loss is proportional to the Lerner's index.

As the authors do not have the information that would enable them to compute separate prices for loans and deposits, they assume a unique indicator for banking activity, using the total assets of each bank as the only output of the banking sector (instead of deposits and loans). The price of this output was proxied by the ratio between total revenues and total assets.

Marginal costs (financial and operating) were derived from the econometric estimation of an European bank cost function using a sample of 24,056 observations for non-consolidated banking firms over the period 1993-2000 for the EU 15.

They compute the Learner index and a measure of welfare loss (as a fraction of GDP) which adds up the deadweight loss and the reduction in consumer welfare.

Their results suggest that, in the European Union, the Lerner index (and, therefore, the level of market power) decreased from 1993 to 1997 and increased thereafter.

In terms of welfare losses, at an EU level, the welfare loss as a percentage of GDP was about 2.4 per cent in 1993, 1.9 per cent in 1997 and 2.5 per cent in 2000.

Berger, A and Hannan, T., "The efficiency cost of market power in the banking industry: a test of the "quiet life" and related hypothesis", The Review of Economics and Statistics, 80, 1, 1998

Synopsis: traditionally, economic research on the effects of concentration and market power on social welfare have been mainly focused on the welfare loss stemming from the price and output distortions which arise in non competitive industries compared to the perfect competition case. This article of Berger and Hannnan discusses another kind of social loss associated with market power, namely the possibility that in concentrated markets firms enjoy their market power through exercising less effort in cost cutting activity and wasting resources with respect to less concentrated markets where competitive pressures are stronger.

Full summary: Berger and Hannan analyse and present empirical estimates for the US banking industry, using data for the late 1980s. They conduct their study using two distinct samples of US commercial banks: a large sample of about 5,000 observations and a reduced sample of 233 banks which has the advantage of allowing the researchers to control for some important determinants of bank efficiency, like the composition of ownership, which required some information not available for most banks in the expanded dataset.

Their methodology consists in the estimation of a conventional translog cost function for the US banking sector: in particular, they regressed operating costs on five different output quantities and two factor prices. They split the conventional error term which is appended to each regressor into an efficiency factor, which is assumed to be time invariant, and a random error. They run this regression equation using two approaches. Their preferred is the so-called "distribution free approach", which basically consists in running the regression for each of the ten years they had information on, and then assuming that, over the ten years, the error term would on average be equal to zero, which implies that the average regression residuals can be interpreted, for each company, as an estimate of their average inefficiency.

As a robustness check, they also estimated the regression on the 1988 sample using the stochastic frontier approach: in this case, Berger and Hannan assumed a distribution for the efficiency effect (the truncated normal in this case) and carried out a regression using maximum likelihood techniques. They then derived a similar efficiency estimate for each bank.

They then regressed the efficiency estimate they derived on a set of explanatory variables that can be thought of as explaining managerial inefficiency. The most important was an index of concentration in the markets where the banks were active, proxied by the Hirshman-Herfindal index of concentration. Among the control variables used, some were indicators for the composition of ownership, for the existence of a take-over threat and for differences in regulatory institutions. They estimated the regression with ordinary least squares techniques, but also with two stage least squares, to take into account the possibility that not only does market share cause inefficiency but that inefficiency may also explain market share.

The authors run a series of robustness checks (like running the regression in linear or log-linear form, on the restricted or large sample, using the Hirschman-Herfindal index as a continuous variable or through a set of dummies, etc) to their basic regression and the results all consistently pointed towards a negative effective of concentration on cost efficiency. However, the magnitude

varied quite significantly, with the regression based on the distribution free approach suggesting that operating costs could be reduced between 8 and 32 per cent for banks in the most concentrated markets if concentration were brought down to the minimum observed level; and the regressions based on the stochastic frontier approach suggesting substantially smaller estimates. Berger and Hannan then used the results to build an estimate of the efficiency costs of concentration for each bank, which they define as the difference between current costs and what costs would be if the Hirshman-Herfindal index were lowered to 0.1, which is usually considered indicative of a low level of concentration. They calculate that between 1.3 per cent and 11.5 per cent (with most estimates in the 2.5-5 per cent range) of operating costs could be saved by eliminating the effects of market power (which, in an oligopoly setting, would translate, at least in part, into lower prices and higher quantities for consumers).

They compare this result to a conventional measure of the welfare loss of monopoly (see the review of Dixon et al, 2001), which they compute according to different scenarios for the market demand elasticity and the Lerner index which are the key unobserved components of their measure. They compute a range of estimates for the welfare loss of monopoly power in the US banking industry which are always substantially smaller than these calculated for the efficiency costs of concentration (in the order of 1 to twenty for the median estimates).

The most significant contribution of this study is that it shows that the efficiency cost from market power is likely to exceed substantially the conventional social loss from mispricing as measured by the welfare triangle. In other words, the main message of this paper is that not only does market power entail allocative distortions as prices are set higher than marginal costs, but productive inefficiency and input allocative inefficiency are likely to be even more important. Stronger competition could lead to significant cost reductions and to lower prices for consumers.

Dixon, R, Gunther, A and Mahmood, M., "The cost of monopoly in Australian manufacturing", The Australian Economic Review, 34, 4, 2001

Synopsis: in this paper Dixon et al provide some estimates of the welfare loss caused by the presence of market power in the Australian manufacturing sector using data (at 4 digit level) for the period from 1982/83 to 1984/85.

Full summary: In the article the authors summarise the theory underpinning their proposed approach to measuring the welfare loss of monopoly. Their aim is to measure the welfare loss that monopoly causes for society as a whole: in a situation of monopoly, lower output and higher price induces a loss in consumer surplus that exceeds the increase in profits realised by producers. Dixon et al assume, as a starting point, that the Australian manufacturing sector is in a situation of monopoly or collusive profit maximising oligopoly. Following the often cited work by Muller and Cowling (1978), it is shown that the deadweight loss of monopoly depends on sector turnover as well as the square of the Lerner index.

Noting that the Lerner index, in the case of a profit maximising monopolist, is equal to the inverse of the elasticity of demand, it is possible to show that the welfare loss is equal to one half the Lerner index times the sector turnover.

Dixon et al show that the welfare loss (WL) could be re-stated for each sector as:

$$WL = \frac{1}{2}(mar_i - mar_c)T \qquad\qquad\qquad (1)$$

where mar_i is the difference between turnover and variable costs (wages and salaries, materials, fuels, etc) as a proportion of turnover for each sector, mar_c is the margin that would characterise a competitive sector and T is the sector turnover. As they did not have information on competitive margins, they used, as an approximation, the average margin for the manufacturing sector.

This measure has of course many drawbacks, already identified in the previous literature (for instance, costs would be different under perfect competition, the average manufacturing margin would contain in itself a monopolistic element and accounting costs often do not represent the real opportunity costs for the company). Dixon et al (2001) seek to deal with the most serious of the drawbacks (the fact that the average manufacturing margin would contain in itself a monopolistic element) by presenting estimates which were computed not allowing sectors with a margin below the average to reduce the estimated welfare loss, which was accomplished taking the absolute value of the sum across all manufacturing sectors of equation 1. According to the "absolute version" of equation 1 they computed a welfare loss of about 6.75 per cent of manufacturing value added and 1.38 per cent of GDP. A simple calculation of equation 1 (i.e. allowing below average margin sectors to reduce the welfare loss) gives welfare loss estimates which fall to 3.5 per cent of manufacturing value added and to 0.71 per cent of GDP.

Dixon et al (2001) provide another set of estimates because the Muller-Cowling measure they used is likely to provide a sort of upper bound for the welfare loss derived from market power, because it is rests on the assumption that the economy is characterised by a profit maximising

cartel. They relax this assumption allowing for the more realistic possibility that collusion between firms is imperfect, and therefore they do not set prices at the profit maximising level: this would tend to reduce the welfare loss computed according to a version of equation 1 above. They derive a simple oligopolistic model where each industry is populated by n firms which produce a homogenous product, face the same linear demand and have identical cost structures. In the case of a symmetric oligopoly, they show that the welfare loss depends, among the other things, on the Hirsmann-Herfindel index of concentration and a parameter for the conjectural elasticity, which, in this context, can be described as a quantification of the belief that each firm has about how its rivals (in aggregate) will re-act to its own output changes. Using a value of 0.10 from their sample for the Hirshmann-Herfindal index and 0.249 for the α parameter (taken from previous research), they calculate that the welfare loss would be approximately equal to one third of that which one could compute from equation 1 (i.e. about 0.24 per cent of GDP focusing on above average margin firms only).

They also provide some regression analysis showing that welfare loss (as a fraction of GDP) appears to be correlated with the capital output ratio and the four-firm concentration ratio: in particular, the higher the level of concentration, the higher the level of welfare loss, as a percentage of industry turnover (at the 10 per cent level of statistical significance). Nevertheless, this last result might not be particularly robust given the estimation method they used does not sufficiently take into account some data features that would require a different econometric methodology to provide more reliable results.

The statistics used in this study to measure welfare loss rest on many assumptions, some of which are not fully realistic. However, it relies on data that should be readily available (turnover and variable costs for a range of manufacturing sectors).

Dobson, P.W., Waterson, M. and Chu, A.,"The Welfare Consequences of the Exercise of Buyer Power", Research paper for the OFT, September 1998

Synopsis: this paper looks at the question of whether buyer power is good for economic welfare and finds that the answer depends on whether the firm can also exploit seller power downstream, and whether there is countervailing seller power upstream, as well as efficiency and restrictive contract considerations.

Full summary: where buyer power operates against an industry without seller power this industry will already be competitive and efficient and thus there will be no welfare gains to be made. In these situations large buyers exploiting the upward sloping supply curve can reduce the prices they pay by reducing demand, but this just means that an inefficiently low amount is purchased; this creates deadweight welfare loss similar to the exercise of monopoly power. The long-term viability of firms within the supplying industry may also be undermined. However, if the supplying firms have producer surplus above the competitive level, then the effect of exercising buyer power could be simply to transfer this surplus on to their customers, (intermediate firms). If the firm with buyer power is operating in an imperfectly competitive downstream market it may be able to use these cost savings to obtain market power, so that the same welfare effects occur as before. Equally, with sufficient competition in the market supplied by the firm with buyer power, the return may be competed away and consumers could benefit from buyer power.

The conditions required for the exercise of buyer power are that: the firm accounts for a substantial portion of purchases in the market, there are barriers to entry into the buyers' market, and the supply curve is upward sloping. The model relies on an upward sloping supply curve because it is the strategic decrease in demand which prevents the firm incurring relatively expensive (but welfare enhancing) marginal production that would raise the price and thus average cost to the buyer for all items bought. This is possible only when the individual firm's demand is large enough to influence noticeably the (market) supply equilibrium. The theoretical example is a dominant employer artificially lowering wage rates in a small town. The strategic reduction in demand is worse if the buyer possesses downstream monopoly power because both of these factors will re-enforce each other to decrease demand further. In both situations the greater the market power the greater will be the reduction in output. Shea (1993) found that for 26 manufacturing industries the supply curves of 3 were downward-sloping (prepared feeds, construction, aircraft), 7 were flat (plumbing products, animal fats), and 16 upward-sloping (lumber, drugs, glass, electronic components). Thus the ability to reduce prices by demand reduction seems possible. However, there are also studies where supply was very elastic and thus the exercise of buyer power was not possible (e.g. Haitian coffee). Chern (1980) found that increased mechanisation (and fixed costs) that reduced the short-term elasticity of supply increased the ability of buyers to restrict purchases and further reduce equilibrium prices below competitive levels.

The exercise of buyer power is likely to reduce welfare where firms have the ability to exploit competitive suppliers; if the buyers have power in relation to consumers then allocative inefficiency is likely, with consumer and factor producer welfare harmed. One caveat is that there might be *efficiency benefits* e.g. collection of products in an area (network effect) or reduced transaction costs, warehousing, or economies of scale caused by a cartel. If the monopsonist

could practice first degree price discrimination in purchasing (i.e. could pay for each unit its exact cost of production rather than a market price) then the purchaser could obtain all economic surplus and eradicate any deadweight welfare loss. When both forms of power emerge, the gains of lower purchase prices need to be greater than the monopoly power to leave overall prices lower. The *dynamic* effects may be that the long term viability of producers is harmed. The reduction in their incomes could reduce investments, and they could be unwilling to make future investments when they anticipate post-contractual opportunistic behaviour by powerful buyers seeking to exploit supplier commitments. This damages efficiency and leads to higher prices.

When there is both oligopsony and oligopoly power in a market, then both situations where one firm possess all the bargaining power would lead to low-quantity outcomes. If the seller has monopoly power it sets a high price and the buyer will purchase until the price equals his marginal revenue (the seller operates so that it maximises the difference between this demand and marginal cost). If the buyer has all the power (i.e. is a monopsonist) the seller will produce until his marginal cost equals the low price set. However, if the two firms were bargaining, they would set the quantity at the amount that was jointly most profitable (at marginal cost equals marginal revenue), which would be higher and closer to the competitive outcome. They could then bargain over the price with the largest possible joint gains on offer. Some commentators have argued that buyer power mostly appears in response to seller power (i.e. is countervailing) and thus may be welfare enhancing. More recent work has suggested that buyer and seller power may be correlated, without answering the question as to whether this was the cause or whether it was just a common feature of the product.

Dobson (1997) modelled a single supplier and oligopolistic retail sector. As the number of retailers falls, the number of options for the supplier fall, reducing his relative bargaining power. However, at the same time retailers will be earning higher profits from increased concentration, and the producer may be able to increase profits even though his share is lower. If this is the case, final prices will rise as the retailers set higher margins on higher costs. Under stringent conditions (close substitutes, few firms, ideally two symmetric retailers, no alternative supply source) where the retailers are competing in a near perfect way, suppliers can compete each others' profit away, leading to welfare gains. However, in this situation the supplier would be tempted to supply only one firm and create a monopoly in order to increase his own profits. Also, in retail markets there are many attempts to differentiate image and retail offer, and it is not clear that concentration is benign.

Other strategic buyer behaviour includes:

- slotting allowances (payments for scarce shelf space);

- exclusive distribution (may benefit suppliers by foreclosing the market or allow for non-linear pricing to combat double marginalisation; but there may also be later price falls after supplier capture due to assured orders and limited alternatives);

- conditional purchases;

- retailers produce close copies of patented products which limits the incentives for manufacturers to engage in investment and reduces their bargaining power;

- joint marketing;

- increase purchases to drive up input prices and force downstream competitors out of business;

- tying up key hypermarket sites and on-licences or other key resources in order to prevent rivals profitably entering (maybe increasing rivals costs e.g. harder to get planning permission);

- reciprocal dealing (both buying and selling to the same firm); terms of business (payment terms or promotional expenditure).

Selective purchasing may increase productive efficiency by reducing transaction costs, obtaining cost-related discounts, and ensuring continuity and quality of supply. However, selective distribution would need explaining (as sales are foregone): it may be to protect reputation and brand or it could be to restrict intra-brand competition and allow covert resale price maintenance.

Purely cost-related discounts (e.g. due to economies of scale or scope, or the security of having a large order) are unlikely to give rise to concern, whereas the abuse of market power may do so. Buyer power is primarily concerned with the extraction of producer surplus and there will be no way to affect downstream prices unless seller power is also present. However, unopposed buyer power will reduce the efficient use of facilities. With elastic supply this would appear less of a concern, but suppliers may be reluctant to make investments given expected buyer reactions. There is also concern that buyer power may create a reinforcing effect, where lower input prices lead to increased seller power and thus to expansion and more buyer power and even lower input prices.

The US Robinson-Patman act prevents large retailers from obtaining discriminatory discounts from suppliers arising from their size or bargaining power, so benefiting small retailers and suppliers. However, the act is condemned by economists as protecting inefficient modes of distribution and imposing costs. The Bar Association says that its disadvantages are: price rigidity (e.g. geographical markets), oligopolistic price discipline (which discourages selective price cuts), discouragement of entry from other markets (cannot use penetration prices in new market), inefficient price differentiation (different varieties to allow different prices), regulatory burden (justifying prices and extra distribution costs rather than using different methods with different/lower prices). Overall, the argument runs, it protects inefficient distribution and dampens upstream competition.

One retail development is "one-stop-shops" where retail chains extend product ranges so that customers who are "captive" because of their need for weekly groceries buy other complementary products from the same outlet. This provides immediate benefits for the shopper, but discourages them from undertaking search activity. In the long-term this strategy enables firms to exercise increased buyer power and thus to drive out rivals, especially if they can cross-

subsidise products by heavily discounting certain key products. Slotting allowances may lead to raised product introduction costs and higher wholesale prices which could lead to higher retail prices.

Another retail development is "Category Killers" where firms advertise their huge range, stocks and (because of volume) low prices (when large range and stock should raise prices); they exist mainly in markets where manufacturer concentration is low (e.g. toys, furniture, and books). Again, low input prices could be obtained by cutting back on demand but if final market competition is fierce the ability of firms to curtail demand will be limited. However, *if the supply curve was downward sloping then the benefit would be more certain* because the buyer would be able to gain the advantages of scale economies and adapt to the attempted increase in market share. Thus the behaviour may be similar to predation where low prices now are replaced by higher prices later once rivals have left the industry (this relies on imperfect information, so reputation is valuable). Buyer power may be a key factor in seller power, and may undermine supplier viability and distort downstream competition.

Hausman, J., "Exact consumer's surplus and deadweight loss", American Economic Review, 4, 71, 1981

Synopsis: in this paper Hausman discusses why the use of the market demand curve to measure consumer welfare changes and the deadweight loss brought about by commodity taxation or monopoly power can provide a poor approximation of the true, relevant welfare measures, the equivalent and compensating variation measures of welfare changes.

Full summary: consumer surplus is estimated as the area beside the market demand curve, with differences in consumer surplus brought about by changes (or differences) in the level of prices calculated by integration of the market demand curve between the two prices. However, economists would define a change in consumer surplus as the amount that "the consumer would be ready to pay or would need to be paid to be just as well off after the price change, as he was before the price change" (Hausman, 1981).[293] This is exactly what Hicks defined as equivalent variation. However, using the area below the market demand curve is not appropriate, because the market demand curve that we observe is the result of both a substitution effect and an income effect brought about by the price change. The relevant demand that we would need in order to estimate the equivalent (and its related compensating) variation would be the Hicksian demand curve, which relates the quantity demanded to the market price, given the level of utility. As the Hicksian demand curve is not observed, economists have used the market (or Marshallian) demand curve for measuring welfare changes, which, theoretically speaking, is valid only when the marginal utility of income is constant.

Willig (1976) showed that, in some circumstances, the approximation provided by the use of the market demand curve is a good one, especially when the fraction of income spent on the good under analysis is small. The main contribution of the Hausman paper was to show that it is possible to estimate econometrically a market demand curve and, in the case of standard linear or log-linear demand functions, to derive the Hicksian demand curve (or the related expenditure function) which can then be used to provide an exact estimate of consumer welfare changes.

The second major contribution of the Hausman (1981) paper was to show that, even if under some circumstances the use of the area under the market demand curve was a reasonably good approximation of consumer welfare change, that was not the case for the measurement of the deadweight loss (at least in the case of the empirical application he presented in the article). It can be important to quantify the deadweight loss because changes in consumer surplus can simply be redistributive effects (e.g. the tax revenue raised by a tax which accrues to the government, or the increase in producer surplus in the case of monopoly pricing as compared to a situation of perfect competition). By contrast, deadweight loss measures the overall welfare effects for society as a whole stemming from a given price change.

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[293] Or, if the researcher is interested in analysing the welfare consequences of monopoly, as the amount a consumer would require in order to be as well off under monopoly as he would be under perfect competition.

The results shown in Hausman (1981) suggest that whenever the deadweight loss is the relevant measure of interest, the procedure he used to measure consumer welfare change can be used in applied research to derive an exact result.

Hausman, J., Newey, W., "Nonparametric estimation of exact consumer surplus and deadweight loss", Econometrica, 63, 6, 1995

Synopsis: this paper shows the possibility of using non-parametric estimation methodologies in the measurement of consumer welfare and deadweight loss.

Full summary: Hausman (1991) had shown how, with some popular functional forms for the market demand equation, it is possible to derive exact measures of both consumer welfare changes and deadweight loss. Hausman and Newey build on Hausman (1981) as they show the possibility of using numerical techniques and nonparametric econometrics techniques to measure consumer welfare changes and deadweight loss. Their major contribution is to show that researchers are not forced to rely on the demand functional forms proposed in Hausman (1981) - which has the merit of allowing researchers to avoid using complex mathematical techniques to solve some of the differential equations underlying the computation of welfare measures.

Hausman and Newey showed that, using numerical methods, it was possible to use non-parametric econometrics techniques, which have the merit of not imposing functional forms on the data which could prove to be "too restrictive", thus "letting the data show the most appropriate relation between quantity demanded and price".

The empirical application discussed in the article suggests that, for changes in consumer welfare, the results are pretty similar to these obtained with the more conventional methodologies detailed in Hausman (1981), but that for the deadweight loss measure, the new non-parametric method provides rather different results with respect to the standard techniques.

Irvine, I. and Sims, W., "Measuring consumer surplus with unknown Hicksian demands", American Economic Review, 88, 1, 1998

Synopsis: this article proposes a procedure based on the Slutsky demand function for producing more accurate estimates of welfare changes than the Marshallian consumer surplus. This procedure has the advantage of being easier than Hausman's approach to implement in practice.

Full summary: In his 1981 seminal paper, Hausman showed that consumer surplus provides a poor approximation of the true consumer welfare change brought about by a change in prices and that estimates of the deadweight loss can be even more misleading. He argued that the use of consumer surplus could be avoided because, for simple market demand functions, it is relatively straightforward to recover the relevant Hicksian demand function. However, for more complex (and realistic) market demand functions, complex numerical methods have to be used to solve the differential equations necessary to recover the Hicksian demand function (see also Hausman and Newey, 1995). As a result, most of applied welfare analysis continued to rely on consumer surplus or using the appropriate welfare measure derived from simple functional forms for the market demand function.

Irvine and Sims (1998) proposed an alternative procedure that should provide more accurate estimates of welfare changes than the Marshallian consumer surplus but that does not have to rely on simple functional forms and that is easy to implement in practice. Irvine and Sims (1998) proposed the use of the Slutsky compensated demand function, which differs from the Hicksian demand because, whereas in the latter the compensation is the amount required to reach a particular level of utility, in the former it is the income required so that a consumer can still afford the bundle of goods bought before the price change. The Slutky demand function can be easily recovered from the market Marshallian demand. As it is always possible to derive the Slutsky demand from the Marshallian demand function, Irvine and Sims (1998) suggest using the former to compute welfare changes, instead of relying on the use of consumer surplus.

In the empirical example they carried out, they found that the use of the Slutsky demand function results in an error of 0.5 per cent of the "true" welfare measure compared to a 6 per cent error when consumer surplus is used. Furthermore, the use of the Marshallian demand curve to estimate deadweight loss would result in an error of about 22 per cent, while this error would fall to about 1.1 per cent when the Slutsky demand function is used.

Lavergne, P et al, "Welfare losses due to market power, Hicksian versus Marshallian measurement", American Journal of Agricultural Economics, 83, 1, 2001

Synopsis: this paper warns against the use of Marshallian welfare loss in applied analysis of market power. It shows how to compute the Hicksian from ordinary demand. It then finds empirically that the Marshallian deadweight loss is a poor estimate of the Hicksian.

Full summary: Marshallian surplus is not an exact measure of welfare change, because the utility of consumers along the ordinary demand curve is not held constant (and it is also not path-independent when more than one price changes). The constant utility or Hicksian can be used to calculate values that either compensate for or provide equivalent welfare to the price change. The deadweight loss due to market power can also be expressed as the equivalent valuation of the price change plus the transfer of the initial quantity times the difference in price. The Hicksian measures are equal to the Marshallian only under the restrictive assumption of a constant marginal utility of income. Previous methods of estimating Hicksian demand required a differential equation that depends on the ordinary demand function to be solved.

The new method of finding Hicksian demand is based on a Taylor series expansion of the equivalent valuation with the terms substituted for Marshallian demand. The price change is analysed in small steps from the numerical approximation algorithm and the total equivalent variation is the sum of the equivalent variations at each step, and extends to any number of simultaneous price changes. At each stage the Hicksian demand is the Marshallian demand for the new next step price and the income necessary to maintain the original utility at that price; thus it uses the ordinary demand function.

Three methods of calculating the necessary price-cost margins for homogenous goods are then analysed. The first one is based on oligopoly quantity competition where the margin is related to the Herfindahl index, the price elasticity and a conjectural variation parameter (0 for Cournot, which is assumed here, and 1 for Bertrand or counterfactual). The second model is of oligopoly price leadership where the fringe firms are assumed to have fixed production with the M leading firms (here four) playing a Cournot game. Using these assumptions the margin can be defined from the market share of the leading four firms and the price elasticity. The final input used to calculate the margin is accounting data. Here it is assumed that the marginal cost is constant and equal to average variable cost so that the margin is defined using added value, labour cost, and sales. This may be an overestimate because capital costs are ignored.

The paper first calculates price and income elasticities for 21 French food industries using annual expenditures and prices (both real and nominal, which allows calculation of price and quantity indices), annual per capita expenditures and per capita incomes (from national accounts). These are combined using a logarithmic equation including a vector of cross-price elasticities. Next the variables for concentration and sales are turned into margins. The concentration values and substitution elasticities are greatly influenced by the market definition, with dairy products having few substitutes and low concentration, in contrast to beverage industries. Most had positive income elasticities, but sugar did not. Price elasticities varied between -2.95 (fruit juice) and -0.16 (coffee).

The theoretical "competitive" price is defined as Price*(1-margin). The Hicksian deadweight loss is lower than the Marshallian when income elasticity is positive and the overall Hicksian loss across all sectors varies between 0.65 per cent and 1.75 per cent of 1987 sales (depending on the margin assumptions). For the brewing industry it could be as large as 17 per cent, and the Marshallian range is about 50 per cent higher. The Hicksian welfare loss is significantly different from the Marshallian at the 5 per cent level in all cases, especially in concentrated industries where it can be four times as large. The assumption of price leadership leads to a greater welfare loss than under the Cournot model. However, for the Hicksian deadweight loss the difference is not significant. These results do not include statistical robustness checks. In order to improve the accuracy of results, disaggregated demand data should be used rather than macro-data.

Nelson, P., and Sun, S., "Consumer savings from merger enforcement: a review of the antitrust agencies' estimates", Antitrust law journal, Vol 69 pp 921-960, 2002

Synopsis: under the 1993 Government Performance and Results Act (GPRA) the Federal Trade Commission (FTC) and Department of Justice (DOJ) are required to estimate the benefits of their merger enforcement efforts. As the GPRA does not specify how this should be done, the FTC and DOJ adopt different estimation procedures. In this paper Nelson and Sun review these methods. The authors carried out interviews with FTC and DOJ staff to obtain information about their GPRA methodologies (because of confidentiality issues the FTC and DOJ do not publish detailed descriptions of their methods).

The estimates are limited to cases in which the FTC and/or DOJ believe they stopped an anticompetitive merger that would otherwise have occurred. The FTC and DOJ both use direct estimates of consumer savings when such estimates, obtained during the course of their investigations, are deemed reliable. In other cases, they estimate consumer savings by multiplying the sales in markets where they opposed mergers by an estimate of the price increase that would have occurred in the market if the merger had gone ahead. The two agencies estimate the post merger price increases in different ways.

Full summary:

Federal Trade Commission's method: The FTC estimated that its merger enforcement actions in the fiscal year 1999 saved consumers $1.2 billion by keeping prices lower than they would otherwise have been. In most of these cases the FTC estimated the price increase that would have occurred if mergers had gone ahead using a 1 per cent multiplied by sales methodology. The geographic and market definitions that were asserted in complaints were used to measure sales levels. Sales levels were then multiplied by 1 per cent to estimate consumer benefits. These benefits were then doubled under the assumption that the anticompetitive effect would have lasted at least two years. The authors give an example of the methodology in practice: in fiscal year 1999 Barnes and Noble (the largest book retailer) attempted to merge with Ingram (the largest book distributor). To calculate consumer benefits from the prevention of the merger, the FTC multiplied retail book sales by 1 per cent to obtain the 1999 consumer benefits figure and doubled the figure to obtain the benefits in the 1999-2000 period.

Department of Justice's method: The DOJ calculated that its merger enforcement efforts saved consumers at least $4.094 billion in the fiscal year 1998 and $2.551 billion in the fiscal year 1999. To estimate the volume of commerce in a market the DOJ uses information from investigative and public sources. Unless it believes that they are not applicable, the DOJ predicts post merger prices using oligopoly models.

To estimate the price increase the DOJ uses two different approaches. The first approach, which is used to estimate price changes in homogenous product markets, uses a formula derived from a standard Cournot model. The second approach, which is used to analyse differentiated product markets, involves the use of simulation models that assume specific demand systems, constant marginal costs and Bertrand pricing behaviour. Unlike the FTC the DOJ limits its savings to a one year period.

Criticisms of the estimation methodologies: the authors identify a number of shortcomings of the FTC and DOJ's methodologies. These include the following:

- The agencies assume that all mergers that were stopped would have had an anticompetitive effect. However, there are several reasons for believing that on some occasions the agencies incorrectly challenge mergers that are not anticompetitive, including the fact that the agencies do not have a perfect track record in the district court.

- The agencies' estimates of savings focus on the benefits arising from specific merger investigations and do not take account of any deterrent affects resulting from the agencies' merger policies. These effects could either be beneficial, e.g. if policies discourage firms from attempting mergers with anticompetitive effects; or detrimental, e.g. if firms are discouraged from attempting efficiency-enhancing mergers because of the risk of high costs or loss of staff if a merger is not approved or is delayed.

- The methodologies used by both agencies assume that all consumers who bought the product at the lower pre-merger price would continue to buy it at the higher post-merger price. However, with downward sloping demand curves this is not true, and estimates are therefore biased upwards. In most of its cases the FTC assumes prices would have risen by 1 per cent but for its intervention. This would obviously vary according to the specific case, and a 1 per cent increase in price could imply an unrealistically large percentage increase in profits in industries where profits are a small percentage of sales revenues.

- The DOJ's use of models containing a large number of assumptions to estimate a percentage change in market prices could lead to biases. These include the Cournot model's assumption of a constant elasticity of demand which might bias the estimated post-merger price increase upwards if demand elasticity increases as market price increases. The FTC does not adjust its GPRA estimates to reflect differences in unilateral and coordinated effects cases. For example, stopping a merger that would have led to a price increase in only one product price would have a smaller consumer benefit than stopping a merger that, through coordinated effects, would have led to a comparable price increase for all consumers.

- The agencies' estimates rarely include any estimates of benefits or detriment to consumers resulting from the effects of competition on innovation. These effects could be positive if competition leads to the development of improved products; alternatively effects could be negative if merger policy discouraged efficiency-enhancing mergers.

Both agencies indicated that they felt that the GPRA estimates understated the consumer benefits that resulted from their merger enforcement efforts. Although generally in agreement with the agencies' description of the GPRA estimates as rough estimates of the value of their merger enforcement efforts which were likely to be conservative, the authors were concerned that the estimates might be used in ways that rough estimates should not be, such as for year-on-year comparisons. The authors believed that the agencies could address their concerns about the improper use of GPRA estimates by providing more information on how they made their estimates, and hence on the limitations of those estimates.

Crandall, R.W., and Winston, C., "Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence", The Journal of Economic Perspectives, Vol. 17, No.4 (Autumn, 2003) 3-26

Synopsis: Crandall and Winston argue that the (US) current empirical record on antitrust enforcement is weak. They start with an overview of the budgets and actions of the Federal government's antitrust authorities. They then examine the available research regarding the economic effects of three major areas of antitrust policy and enforcement: changing the structure or behaviour of monopolies; prosecuting firms that engage in collusion; and reviewing proposed mergers. They find little empirical evidence that past interventions have provided much direct benefit to consumers or significantly deterred anti-competitive behaviour. The authors suggest that until there is hard evidence that identifies where the current antitrust statutes and the institutions administering them are improving consumer welfare, the antitrust authorities should focus on the most significant violations such as blatant price fixing and merger-to-monopoly and treat other threats to competition with "benign neglect".

Full summary:

Monopolization: Crandall and Winston investigate the efficacy of antitrust policy in curbing monopolization by examining several cases where the government obtained substantial changes, leading to the expectation of consumer benefits. The cases discussed include Standard Oil, American Tobacco and Alcoa. The authors' discussion of monopoly cases suggested that these cases often failed to increase competition to the benefit of consumers. Reasons given for outcomes not improving consumer welfare were: the protracted length of cases which often took so long that industry competition had changed before the remedy was implemented; and that the remedy turned out to have negligible practical impact.

Collusion: the authors state that retrospective assessments of collusion cases have failed to find much direct benefit from curbing alleged instances of collusion. Examples given include an antitrust indictment of bakers in Seattle which had no effect on the price of bread (Newmark, 1988); and Sproul (1993) who analyzed a sample of 25 price fixing cases between 1973 and 1984 for which usable price data were available. Sproul argued that if a cartel succeeded in raising prices, prosecution should lower them. However, he found that after controlling for other influences, prices rose on average 7 per cent four years after an indictment. Possible explanations given for anti-collusion measures not benefiting consumers include the possibility that a cartel may reduce costs through shared advertising and research, which might lower prices rather than increase them, or that a cartel might be pursuing distributional goals. The authors conclude that although there are several examples where firms have clearly colluded to raise prices, "researchers have not shown that government prosecution of alleged collusion has systematically led to significant non-transitory declines in consumer prices."

Mergers: Crandall and Winston describe how mergers can harm or benefit consumers. Mergers that enable firms to acquire market power may raise consumer prices, while mergers that enable firms to realize operational and managerial efficiencies might reduce costs and therefore lead to lower prices. Antitrust enforcement could therefore be either good or bad depending on how well the antitrust authorities distinguish pro-competitive mergers from anti-competitive ones. The

authors describe ways in which a researcher could test whether the mergers that are blocked or that have conditions attached to them are the ones that would have led to anticompetitive outcomes and welfare losses.

One way suggested is using stock price data, which are presumably forward looking, to test the hypothesis that horizontal mergers that were challenged by the government would have created market power in the defendants' industries. Another approach is to look at mergers that were challenged or opposed by the antitrust regulators but that went ahead anyway. The authors give several examples of mergers that were challenged but that went ahead and led to lower prices.

Crandall and Winston then carry out an assessment of recent merger policy based on price-cost margins across industries. They work on the assumption that although there are measurement concerns with using price-cost margins, greater market power should, *ceteris paribus,* increase them. They also recognize that using inter-industry data to explain price-cost margins can be problematic. Their hope is that the suggestive findings from the exercise can be viewed in combination with other researchers' findings about the effects of antitrust merger policy.

For their dependent variable they use price-cost margins from 1984 to 1996 for 20 manufacturing industries. They specify merger enforcement variables with two-year lags. In their regression price-cost margins are assumed to be influenced by court-based outcomes, second requests for information and industry characteristics. The court-based outcomes included are the number of successful and unsuccessful merger challenges as well as the number of consent decrees reached by the government and the firms proposing to merge. The sample also contained second requests for information which may have discouraged some of the proposed mergers from moving forward. They also include a number of industry characteristics including the import-sales ratio, to control for foreign competition; and the capital-sales ratio, to control for technology.

If antitrust interventions against mergers were benefiting consumers, the successful challenge of a merger or negotiation of a consent decree should cause price-cost margins in an industry to fall from what they would have been. However, if antitrust investigations focus on mergers with efficiency effects, price-cost margins should rise following the successful challenge of a merger because the proposed merger would have reduced firms' costs.

The authors state that the coefficients of the court-based outcomes suggest that merger enforcement policy is primarily undermining mergers that would enhance efficiency, rather than protecting competition. They conclude that efforts to block particular mergers or to affect a merger's outcome by only allowing it if certain conditions are met have not been found to increase consumer welfare systematically, and in some instances the intervention may have reduced it.

Werden, G.J., "The Effect of Antitrust Policy on Consumer Welfare: What Crandall and Winston Overlook", DOJ economic analysis group discussion paper. 30. 2nd January 2003

Synopsis: this paper criticises Crandall and Winston's paper "Does Antitrust Policy Improve Consumer Welfare? Assessing the evidence". Werden claims that Crandall and Winston's paper ignores a large amount of the evidence supporting two core elements of antitrust policy – criminal prosecution of cartel activity, and challenging anticompetitive horizontal mergers. He also claims that their empirical analysis relating to merger enforcement suffers from such serious methodological flaws that it sheds no new light on the issues.

Full summary:

Evidence on the price effects of cartels and mergers: Werden claims that the empirical evidence reviewed by Crandall and Winston on the price effects of cartels and mergers was highly selective. Werden states that Crandall and Winston only cite one study of the price effects of criminally prosecuted cartel activity – Sproul (1993). Werden points out several flaws in the Sproul study including that the price series data used by Sproul was unsuitable to the task because it typically included so much in addition to the cartelized market that the effect of the cartel was easily lost. Werden claims that there were a lot of relevant studies not reviewed by Crandall and Winston, and cites several examples of studies of collusive behaviour which found that such behaviour led to higher prices, including Porter and Zona (1999), and Lee (1999).

Crandall and Winston's new empirical evidence on mergers: Crandall and Winston related census price-cost margins (PCMs) to merger consent decrees, successful merger challenges, and unsuccessful merger challenges. Although unsure of Crandall and Winston's exact method, Werden suggests that they did this by pooling cross section and time series data across 20 "major groups" in manufacturing and across the years 1984-96. Werden criticises Crandall and Winston for not acknowledging the problems of this sort of study (referring the reader to Fisher, 1987; Liebowitz, 1982; Ornstein, 1975) that have apparently led first to the use of alternative data sources and then to an almost total abandonment of both inter-industry studies and the use of profit cost-margins as a dependent variable.

Werden identifies a number of problems with Crandall and Winston's findings, but suggests that the biggest problem with their analysis is that the effects of merger enforcement cannot be detected in such highly aggregated data, due to dilution of effects. He illustrates this point using the following example: Suppose the government correctly forecast that a merger would cause a 5 per cent increase in industry average prices. If the pre-merger PCM was 0.25, the post merger PCM would be 0.286. But if the relevant market constituted just 1 per cent of an industry aggregate in which all firms had PCMs of 0.25, the predicted post merger PCM would be 0.2504, and the increase would be lost in the noise of unexplained variation in the PCMs of the remaining 99 per cent. Werden states that it would therefore be essential to find out how the volume of commerce in the alleged relevant markets compared with that of the industry groupings used by Crandall and Winston.

Referring to "commerce quotients" calculated by Pittman and Werden (1990) which measure the ratio of the annual dollar volume of commerce in the alleged relevant market to the value of

shipments for the industry groupings used by Crandall and Winston; Werden estimates that the relevant market would be less that 1 per cent for roughly ¾ of the markets and less that 0.05 per cent for roughly 1/3 of the markets of the industry groupings used. The data would therefore be far too aggregated to permit the measurement of any of the effects of merger enforcement.

Davies, S., Majumdar, A., "The developments of targets for consumer savings arising from competition policy", OFT, 2002

Synopsis: this paper suggest a methodology for quantifying the benefits to consumers that arise from the competition policy work of the OFT. It reviews the relevant academic literature and the practice of the US competition authorities, which already seek to assess such benefits.

Full summary:

Basic methods: the authors propose that an estimate of consumer savings can be obtained by multiplying the relevant turnover by the price increase prevented by the application of competition policy. It is noted that marginal consumers will switch out of the market and thus this basic estimate is an over-estimate (dependent on the elasticity); however, the reverse is true if the abuse is the restriction of a potential price fall (e.g. cartel) and these errors may be of similar magnitude. The producer welfare and efficiency savings are ignored partly because of the added complexity and data requirements and partly because of uncertainty as to the legality of sources of producer surplus. In addition, including producer welfare would depart from a focus on consumers. Other indirect effects such as quality or choice are also ignored but this is consistent with the proposed measure being a lower bound, because these consumer benefits usually increase with competition. The counterfactual is how competition would develop on a 1-2 year timescale. Because not all cases are investigated and there is a deterrence effect it is assumed that more harmful cases survive than efficiency-enhancing mergers get blocked. Thus all decisions are assumed to be correct.

Costs of monopoly: original 1950s estimates were that the costs of all the monopoly power in the U.S. economy amounted to less than 1 per cent of GDP (margin 4 per cent), but these may have missed some aspects of competition. Cowling (1978) found estimates of 4 per cent plus 3 per cent rent seeking (to raise or maintain entry barriers) for the UK but this assumed most markets were monopolies, not oligopolies, and the rent seeking concept was very controversial. Scherer and Ross (1990) estimated the US cost of monopoly to be between 0.5 and 2 per cent of GDP. In order to obtain price setting results, only the price elasticity of demand or the monopoly mark-up is required. In oligopoly the relationship is $m=He^{-1}$ where H is the Herfindahl index value. If the price rise (m) is 10 per cent, then a value of H=0.1 would give a deadweight loss of about 0.5 per cent of GDP and a consumer loss of over a tenth of GDP.   The paper suggests that over half the gains from monopoly could be passed to workers in higher wages, and there is also a risk of X-inefficiency and knock-on effects in other markets.

Effects of competition on efficiency: Competition should cause costs to fall, production to be allocated to cheaper producers, and firms to strive to achieve market power through innovation. The principal-agent theories suggest that this can happen through improved information, e.g. easier benchmarking of performance, but this is only really possible when the quality of managers is more variable than demand and supply conditions. It could also happen via increased pressure arising from tighter budget constraints, but it seems that of the two effects competition can have, efficiency is likely to improve when elasticity increases, but fall when demand is reduced, even though worker bargaining power is reduced. Duplication (excessive fixed costs) can be a problem but often there will be counteracting increases in efficiency and choice. Intense imitation

can harm growth, but in some industries imitation increases the chance of further innovation. In general, competition and trade are good for growth but can be endogenous to productivity, so estimation is difficult. The effect on dynamic efficiency is case-specific. Over half of productivity growth appears to be due to multi-plant firms distributing output between plants. Increased concentration seems to reduce innovation, even though large firms innovate more. When rubbish collection and buses were opened up to competition, costs fell by 20-30 per cent.

Effects of cartels on prices: Froeb (1993) found that prices rose by 10-20 per cent (more in the more frequent bid-rigging cases). Stock markets show falls of about 1.1 per cent ($2.2bn) when enforcement action is taken; 13 per cent is taken to be the effect of legal costs, implying that lost mark-up is 9 per cent (median 2.6 per cent). Others have made estimates of about 9 per cent or more with cartels that survive 5 years. Authorities claim that prices may rise by 10 per cent but the harm (including costs etc) can be 20 per cent (because cartels encourage entry and increased fixed costs); they have also found several cases with price rises of over 50 per cent. Cartels seem generally to survive 5-6 years and thus have a per annum probability of detection of about 15 per cent.

US methods for estimating consumer savings: when no other information is available the US authorities assume that a merger raises prices by 1 per cent. The requirement for a merger to be stopped is a failure of the SSNIP test, which requires competitive market prices to be able to rise by 5 per cent. Thus a firm with market power is considered able to raise prices by less than this, and then only over the *merging firms' turnover in the relevant market* (ignoring the fact that competitors' responses will be to put prices up, and that this combined turnover is likely to fall). However, in some (symmetric) models a rise of 1 per cent by an individual firm is only possible (when the total rise is a maximum of 5 per cent) if the merger results in duopoly. The US authorities assume this price increase lasts for 1 and 2 years respectively. In some cases advanced econometric work is possible, but this cannot be done individually if it does not already exist (e.g. 9 per cent in Staples). Unless costs fall or there is entry then prices must rise, thus in simulations which do not include entry the models produce positive price increases. If the non-merging firms are more efficient, then the merger can cause an efficient re-allocation of production. Merger analysis must consider how close the available substitutes are and firms' reactions (repositioning). These can significantly affect results and the analysis needs very detailed data. For simulation the model (e.g. Betrand, Cournot) is selected then calibrated on current shares and then applied to the future situation. A middle course is to try to estimate the diversion ratio (share of A's sales that would go to B when A raises price) either by econometrics, survey data, internal documents, or otherwise using market shares – but results can be severely biased in this instance if they are not equally substitutable. Second, margins can be used to predict unilateral behaviour, and it is then necessary to try to anticipate reactions. Finally, merger-specific marginal cost reductions should be taken into account. This analysis assumes constant elasticities along the demand curve, with customers switching brand rather than leaving the market (low aggregate elasticity of demand in the market), as well as no entry or significant strategy changes (such as cooperation).

Merger prevention savings in the UK: by analysing specific cases it was found that 3 firms with 60 per cent of the market merging to 2 in a homogenous industry (flour) would only increase price by 1.5 per cent because output elsewhere would significantly increase, including many producers

who would virtually double and may have been capacity constrained. In beer (a differentiated product) a 4-to-3 merger of the main firms should have led to price rises of 3 per cent (more than implied by the simple approach because the products were closer substitutes). Other results were betting (3 per cent), and colourings (7 per cent). In a potential competitor situation the appropriate measure could be the fall in price possible if the new competitor did enter. To compute an estimate, data are needed on market shares and margins, but the elasticity can be used to provide a check. The regulations have had an equal impact if the merger is banned, amended or abandoned due to investigation even if this is based on confidential guidance (though a quarter of cases referred are cleared, suggesting that not all abandoned at this stage would be found to be harmful on closer inspection). There could be a deterrence effect but this should be small due to the low cost of guidance. Competition problems are often a by-product of a larger merger, and but their case-specific nature makes them difficult to estimate.

Cartel enforcement savings in UK: In one model of cartel detection and enforcement, cartels will not exist when the tax rate multiplied by the detection rate equals 1 i.e. fines are 6.7 times cartel annual profits (compared to about 3 times in U.S.) currently. Thus it may be that because higher fines are politically infeasible some cartels may rationally form (in the absence of other effects, such as reputation). In the US a survey of advisors suggested that the number of cartels would rise by 150 per cent if there were no enforcement and existing cartel arrangements would became more aggressive (as higher prices would no longer carry the risk of detection). In the EU advisors thought that few cartels are caught and most involved in cartels know it is illegal. When one industry is indicted similar markets (especially those with the same firms present) also see price falls. In the UK cartel law registered agreements in 1956 and started to disband them in 1959, but by 1968 profits had recovered to the previous level with long-term negligible impact. Thus with low entry barriers it is thought merger and exit act to raise margins so that producer surplus gains from the policy, not consumer surplus. Analysing the observed cartel margins it appears that the conclusion that there has been no deterrent effect (i.e. these are the monopoly rates that would be charged without enforcement) can only be maintained under the assumption that the elasticity is about 10, which seems implausible. The theory suggests that current margins (of 10 per cent) may be just a seventh of monopoly values (over 70 per cent).

Savings from other competition enforcement: The lower bound of the cartel enforcement savings depends on stability; duration can be anywhere from 1-2 to 9 years, and the average is about 5-6 years. Predation can be worse than a merger for consumers because of price increases due to increased concentration, and the reputation effect will discourage future competition. The reputation effect should be calculated as part of the penalty, although the penalty may not consider the initial ”gain” for the consumer. For vertical agreements with new cars, the saving was about 10 per cent but this is too specific to enable a lower bound to be calculated.

Use of estimates: estimates cannot be used as a performance target as they are more dependent on the cases that arise than on the effort of staff (e.g. blocking a large merger creates a large impact simply because the market is large). Thus it would turn into a turnover target that reduced the demonstration effect on small firms (i.e. investigators would be tempted to pursue only large mergers). Thus the measure of the benefits produced by competition policy can only be used to show the benefits of government intervention.

Creedy, J. and Dixon, R., "The Relative Burden of Monopoly on Households with Different Incomes", Economica (1998) 65, 285-93

Synopsis: the paper examines the relationship between the level of household income and the burden of monopoly, measured as the (static) loss of consumers' surplus. Using a method relying on several strong assumptions the authors find the welfare loss associated with monopoly power to be higher for low-income households than for high-income households. The results therefore indicate that as well as the absolute welfare loss arising from monopoly, there may be substantial effects on welfare distribution. The method used involves combining the static net consumers' loss method of assessing the cost of monopoly with a method of linking demand elasticities to income levels. Welfare loss is aggregated over commodity groups for households at different income levels and the loss of consumer surplus is then compared with households in other income groups.

Full summary:

Measuring monopoly welfare loss: to measure monopoly welfare loss the authors use the static consumers' surplus method. It is assumed that the true social net cost of monopoly is proportional to the loss of consumers' surplus and that the factor of proportionality is the same for all households. The authors acknowledge the problems associated with using this type of surplus measure as an approximation to a welfare loss. They point out, for example, that Kay (1983) showed how the surplus measure can be regarded as an approximation to a welfare measure based on equivalent variations only if all the cross-price elasticities are zero. They measure the net loss of consumers' surplus using the standard result that the area of the loss triangle is half the price difference multiplied by the reduction in the quantity demanded. Aggregating the welfare loss on each item and expressing it as a proportion of the total expenditure on all commodities gives the total (percentage) welfare loss.

However, in measuring the welfare loss from monopoly the authors point out that they make a number of very strong assumptions which would bias results. Assumptions include profit maximisation with all producers being pure monopolists or oligopolists selling a homogenous product and aiming to maximise joint profits. The model also does not take account of issues such as X-inefficiency, general equilibrium effects and the Tullock (1967)–Posner (1975) costs of monopoly. Moreover, no attempt is made to subtract from welfare loss any benefits that might result from monopoly.

Estimating the components of welfare loss: in order to estimate the components of welfare loss the authors calculated own price elasticities using household budget data, following the approach pioneered by Frisch (1959). Data from the Australian Household Expenditure Survey were used to generate demand elasticities for 14 commodity groups and to obtain estimates of the relative welfare loss for households of different income levels.

Results: the authors' results indicate a general reduction in the general burden of monopoly as total expenditure increases. They found that the burden on those in the first decile is 46% higher than on those in the top decile. The authors point out that their results should be treated with caution because of the strong assumptions used. However, they suggest that the bias resulting

from the assumptions would be similar for all income groups and so the measures of relative welfare loss presented in the paper might not be affected.

Creedy, J. and Dixon, R., "The distributional effects of monopoly", Australian Economic Papers, 38, 1999

Synopsis: this paper uses empirical information derived from the Australian Expenditure Survey for 1993 to estimate the welfare and distributional effects of a set of proportional price increases, which they identify as the price difference that would exist between a competitive and a monopolistic market.

Full summary: before estimating the distributional consequences of monopoly pricing (which in Creedy and Dixon's framework should be understood as prices being higher than marginal costs, rather than the price level being fixed by a single firm), they have to build a model showing how prices would change if markets were competitive. Creedy and Dixon (1999) make a set of standard assumptions (for instance, that marginal costs do not depend on market conditions or output levels) which allow them to interpret the change in price brought about by competition as the percentage difference between the monopoly price and marginal costs.

After using the well known result that the ratio between marginal costs and the price set by each firm k depends on the elasticity of demand faced by that firm (which differs from the market demand elasticity as firm k will take into account the reaction of other firms to firm's k output), they show the relationship which exists between the elasticity of market demand and that faced by single firms and how this turns into an equation that can be used to estimate the ratio between actual prices and marginal costs.

Using the analytical framework briefly described above, Creedy and Dixon (1999) show that the rate of change in prices depends on a relatively simple function of the market demand elasticity, which they assume to vary across income groups (they make the assumption that it is possible "to model the economy as if each income group operates in a different market for each commodity"). They then show how it is reasonably easy to estimate these market demand elasticities using the Australian Family Expenditure Survey for 1993, making use of some well known results in consumer theory that reduce the computational burden of the estimation exercise. However, this required the authors to present some sensitivity analysis due to several assumptions made for some of the key parameters necessary to estimate both the market demand elasticities and the parameters entering the formula for the marginal cost/monopoly price ratio.

Creedy and Dixon (1999) warn that their assumptions could turn out to have serious consequences in measuring the absolute welfare loss of monopoly. However, they suggest these assumptions may nevertheless be relatively innocuous when the focus of the analysis is on estimating the distributional consequences of monopoly.

They use the information derived from their theoretical framework as well as empirical analysis to estimate, for each income group, the equivalent variation of the price change, which can be defined as the amount consumers would be willing to pay, after a price increase, to avoid it. The equivalent variation is intimately linked to the concept of equivalent income, i.e. the value of income which, at some reference set of prices, gives the same utility as the actual income level. In particular, taking actual (monopoly) prices as reference prices, Creedy and Dixon (1999) note

that the "pre-change" equivalent incomes are just actual incomes, while "post change" equivalent incomes are actual incomes less the equivalent variations. The ratio between equivalent variation and actual expenditure is thus used to show the proportional increase in equivalent incomes when the market changes from competitive to monopolistic. The results show that, as total expenditure rises, the ratio between equivalent variation and expenditure falls, which should be interpreted as an indication that monopoly tends to have a larger impact on the lower income groups, and that therefore it increases inequality.[294]

Finally, Creedy and Dixon (1999) compute standard inequality indexes using equivalent incomes pre and post price changes and report percentage changes in inequality under monopoly compared to competition.

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[294] Their results show a systematic pattern, which is independent of the assumptions made for some of the parameters used in the analysis.

"Consumer Detriment under Conditions of Imperfect Information", prepared for the OFT by London Economics, Research Paper 11, OFT, August 1997

Synopsis: this is a lengthy (131-page) report, in which the authors' starting point is that consumers are rarely well informed when making purchase decisions. London Economics (LE) argues that, when making purchase decisions, consumers would like to know three pieces of information: the price of the product itself, and of other products (substitutes and complements); the quality of the product (relative to substitutes); and the terms of trade (the location of the supplier, date of delivery, terms of the lease, etc). In practice consumers are imperfectly informed; they may not have the full (or any) details about these three pieces of information, and consumption decisions are therefore unlikely to be optimal in the textbook sense. To the extent that such decisions could be improved, a consumer detriment exists arising from informational problems. LE's task was to clarify the OFT's thinking about the general issues involved in its consumer protection work.

The research sought to establish what meanings should be given to the terms *consumer detriment* and *adverse effects on the economic interests of consumers;* how these can best be measured; and what guidelines, if any, can be drawn up to aid the identification of areas of economic activity where these situations, and practices which adversely affect consumers, are likely to occur. (In round terms, the LE study foreshadowed, albeit on a smaller (national) scale, the study commissioned by DG SANCO from Europe Economics.)

The report concludes that detriment can be defined only in relation to avoidability, and that measurement is exceedingly difficult. Although it is possible to identify certain characteristics in markets likely to give rise to consumer detriment, it is not possible for competition authorities to take a mechanistic approach to identifying them. A case-by-case approach is essential. It will not be easy to complete a reliable cost-benefit analysis of remedies applied or contemplated.

Keywords: information, bounded rationality, imperfect information, consumer behaviour, supplier behaviour

LE found that the then existing literature was of little use in its study, and therefore established its own research framework. Essentially, it looked at the behaviour of consumers (demand-side) and the behaviour of suppliers (supply-side) in conditions of imperfect information.

On the demand side, LE identified consumers' actual beliefs (A) about a product or service, the true information set (T), and the rational belief-set (R) that a fully rational consumer would or should have had available before making a purchase decision. In an ideal world, A=T=R. There may, however, be transient or permanent differences between the three information sets, the extent and nature of which enables a framework to be established under which consumer detriment can be identified and measured.

On the supply-side, the mere fact that suppliers wish to provide information about their products or services does not imply that they will provide the optimum amount of information in the best way for consumers. The true distribution of information (T) results from the aggregate behaviour of all suppliers. Suppliers set prices, determine the quality they offer and the terms of trade at which they sell. The sum of the information about all values set by all suppliers determines the

true distribution. If there is only one supplier, he clearly controls T; a small number of suppliers may co-ordinate their behaviour and thereby jointly control T. In a competitive market, no single supplier *controls T,* although of course individual behaviour will affect it. The rational set of beliefs (R), in turn, depends on the cost of obtaining information. Suppliers' decisions on what information they want to make available, and in which way, affects consumers' search costs and, therefore, has an impact on R. The actual set of beliefs (A) is formed through consumer-supplier interaction. Information given by suppliers to consumers in this interaction will have a direct impact on A, and A will be different from R in cases where, for example, suppliers mislead consumers by making false claims (or not correcting obviously mistaken beliefs) or use high pressure sales tactics. This may occur where suppliers have market power, or where the incentives created by commissions can force a sharp divergence of interests between the sales person and the consumer.

LE identifies three main ways in which consumer detriment may occur: consumers may not buy the product or service at the cheapest price available to them; or they may not buy the most appropriate product, given their tastes and preferences; or they may purchase a product or service which proves not to be of the quality they assumed *ex ante*. Each of these effects is common in markets characterised by imperfect information. However, the cause of the detriment and its magnitude varies from case to case.

The issue of avoidability is crucial to LE's measure of detriment, because any measure of consumer detriment must be made with reference to some other state of affairs. LE therefore employs an "alternative institutions" methodology to assess whether the consumer position could be improved. This technique measures the size of detriment as the difference in consumer welfare between the current state of affairs and a better (but practical) alternative. In other words, the degree to which LE judges a particular action or type of behaviour as detrimental depends critically on what can be done to remedy or avoid it. Without considering avoidability, LE argues, it is not possible to consider detriment.

As a demonstration of its framework, LE in Chapter 5 looks at four markets which were investigated by the OFT or MMC: extended warranties on electrical goods, life insurance policies, photocopiers and contact lens solutions (CLS). The market for extended warranties on electrical goods illustrates how consumer detriment occurs as a result partly through differences between A and R, but mainly through differences between R and T. Furthermore, LE argues, much of the detriment caused by the divergence between R and T is avoidable. The differences between A and R can be resolved through the establishment of a code of practice which eliminates adverse trading practices. The differences between R and T can be resolved through greater transparency and more information, which will increase R through lower search costs and higher expected gains from search.

In life insurance policies there is a massive (T-R) problem and, in some cases, a lesser (R-A) problem arising from selling techniques. The OFT's preferred remedy of disclosure will not, in LE's view, work in these cases, as more information is unlikely to help consumers. In some cases it may confuse them further.

The market for photocopiers is characterised by strong focal points and some questionable sales techniques. The bundled contract of lease, service and consumables in a cost-per-copy deal serves to confuse the consumer as to the true life-cycle cost of the photocopier over the period of the contract. Information is not clear or not disclosed in this type of contract as to the severity of termination penalties, the list price of the photocopier upon which the lease is based, etc. The OFT's remedies of greater transparency in contracts and a code of practice to cover sales techniques address many of these problems, as it is felt that most of the (T-R) problem is avoidable. However, LE argues that, as with financial services, more information is useful only if consumers actually understand the information they are being given and can act on it.

In LE's view the CLS case emphasised the problems of primary and secondary purchases, and how consumers may be discouraged from shopping around for after-market products. Virtually all information available to consumers came from opticians, as regulatory barriers prevented entrants such as supermarkets from supplying CLS. The MMC concluded that there was a fundamental market power problem underlying these information problems. The regulatory regime was also criticised. However, the MMC did not recognise that consumers are heavily influenced by the recommendations of their optician and that this was a major source of information problems.

LE goes on to suggest a methodology whereby markets particularly likely to give rise to consumer detriment may be identified. It deals in two elements of consumer detriment: utility losses due to an avoidable gap between the set of beliefs they should have after having conducted a rational search procedure, (R) and the true distribution (T); and utility losses arising from a divergence between the set of beliefs upon which consumers act, (A), and the set of rational beliefs (R).

Consumers will (rationally) know less than they could about factors relevant to their purchasing decisions when the cost of obtaining information is substantial, or where learning is slow and/or inhibited by the fact that consumers cannot evaluate their purchase decisions even after purchase, or their evaluation will not be effectively communicated to others. LE argues that search costs are likely to be substantial in cases where information is relatively complex and difficult to obtain or process; and learning is likely to be slow and ineffective where goods have credence characteristics or are purchased infrequently.

LE identifies six indicators which signal potentially problematic markets:

- the existence of price dispersion for seemingly similar products or services;

- the existence of focal points of competition;

- the bundling of primary and secondary purchases, or the existence of after-markets;

- the existence of commission payments, particularly from upstream suppliers to retailers or advisers;

- "complex" goods or services; and

- goods and services which are either purchased infrequently, or which possess credence characteristics.

By categorising those markets which are most frequently referred to in complaints received by the OFT, LE suggested that markets which appear to be most problematic tend to display at least three of these indicators.

By way of conclusion, LE suggests that the process of identifying problem markets and assessing the extent to which consumer detriment occurs is too complex to allow for an easy, mechanical solution. It is impossible to develop a comprehensive checklist that would lead to unambiguous results.

LE admits that it was unable to devise a simple and practical method of measuring the size of any detriment. The size of any problem is dependent on the degree of avoidability. This in turn requires a careful analysis of markets on a case-by-case basis. The best approach to measurement, LE argues, is probably some form of cost benefit analysis. However, there are several problems here, even if the alternative can be properly identified. First, there is the issue of measuring consumer detriment in some form of financial way. Second, there is the fact that consumer detriment may be very different across different groups of individuals, and it would be necessary to aggregate these measures in some way. Finally, any remedies (implicit in the specified alternative) will have some cost – to suppliers, to the OFT, and even to some consumers – and this cost has to be netted out of the calculation.

Hunter, J., Ioannidis, C., Iossa, E. and Skerratt, L., "Measuring consumer detriment under conditions of imperfect information", report prepared for the Office of Fair Trade, 2001

Synopsis: in this study Hunter et al (2001) define consumer detriment as the loss in consumer surplus that arises as a consequence of imperfect information. They discuss separately the case of imperfect information on prices and quality and, in each case, they develop a model of consumer detriment that can be used to estimate consumer detriment empirically.

Full summary: consumers can be imperfectly informed on the distribution of prices, or may lack all the relevant information about the quality of the goods which are available in the market. Hunter et al (2001) review the theoretical literature which has dealt with the links between imperfect information and prices and quality. When consumers are imperfectly informed about prices, consumer detriment might arise because consumers might not end up buying the cheapest available product: when search costs exist, the "law of one price" no longer holds and consumers may stop searching before they buy the cheapest product. Search costs tend, therefore, to give producers some degree of market power and this allows them to charge higher prices than under a situation of perfect information. Similarly, if consumers tend to overestimate the quality of products, they will tend to demand a quantity which is higher than what they would have demanded in a situation of perfect information (and they would also pay a higher price, as the effect of quality overestimation could be exemplified by a shift of the demand curve).

Hunter et al (2001) discuss separately the case of imperfect information on prices and quality and, in each case, they develop a model of consumer detriment that can be used to estimate empirically consumer detriment arising from imperfect information. We will discuss the two cases separately.

Ideally, to measure consumer detriment arising from imperfect information in prices, one would need to have information on the prices and quantity that would prevail under perfect information. However, to derive a robust theoretical relationship between the prices, quantites and the level of imperfect information, one would require robust and precise estimates of the distribution of search costs among consumers and of how their willingness to shop around is affected by search costs. Therefore Hunter et al (2001) make the simplifying assumption that, in the case of perfect information on prices, the market would be competitive. Therefore, they assume that the current level of marginal (or average) costs is indicative of the prices that would be set under perfect information. This amounts to an assumption that search costs are the major source of consumer detriment.

In their model, they assume that the economy is populated by identical profit maximising firms and that prices under perfect information are equal to marginal costs. Under these assumptions they build a measure of consumer detriment: intuitively, consumer detriment arises under imperfect information in prices because some consumers would end up paying a price higher than under perfect information, and the number of units bought by each consumer is likely to be lower (because the price is higher). It is interesting to note that this analysis is very similar to the traditional approach to measure the deadweight loss and consumer losses brought about by monopoly power: Hunter et al (2001) show that, in the case of a monopoly, consumer detriment is

equal to the deadweight loss of monopoly plus monopoly profits, i.e. 3/2 of monopoly profits. Hunter et al (2001) then provide three equations that could be used to provide a measure of consumer detriment.

The first equation yields an expression for consumer detriment that depends only on the mark-up of prices over marginal costs and turnover under both perfect and imperfect information. The mark-up gives the proportion by which prices exceed marginal costs: accounting information is not particularly useful, as marginal costs are not observable. Hunter et al (2001) propose to estimate it econometrically, using the approach suggested in Nishimura et al (1999): however, this methodology appears to be quite data intensive, because it requires panel data on sectors or (preferably) companies and, in particular, data on capital stock, labour expenditure, output, depreciation rates, etc. The econometric analysis, though nowadays fairly standard, is however considerably more complicated than common ordinary least squares. The econometric estimates could however be used to help estimate the turnover under perfect information, because that could be estimated as the turnover of the company with the lowest marginal costs which in turn can be recovered from the econometric exercise.

Assuming that there are constant returns to scale, marginal costs would be equal to average costs, and Hunter et al (2001) show that an expression for consumer detriment similar to that described above could be recovered and computed using information on profits, sales and total costs. The previous analysis was based on the assumption that firms were equal: Hunter et al (2001) relax this assumption and show how to compute another measure of consumer detriment that would, however, require an estimate of the mark-up and information on turnover under perfect information. Hunter et al (2001) consider their first expression for consumer detriment as the most realistic, even if the one which assumes constant marginal cost is perhaps easier to compute. Hunter et al (2001)'s strategy for estimating consumer detriment arising form imperfect information is likely to overstate it because, as noted by the authors, they compute consumer detriment assuming that there will not be any entry by new firms, which would tend to reduce the industry's excess profits. Secondly, their measure of consumer detriment also includes welfare losses due to other sources of market power: this would suggest that consumer detriment as defined by Hunter et al (2001) would be overestimated (although that might not be the case should one change the definition of consumer detriment). Hunter et al (2001) note that their approach does not include search costs and, therefore, it is likely to underestimate the impact on consumer surplus of measures that reduce search costs.

Hunter et al (2001) provide a thorough discussion of consumer detriment when its source is consumers' overestimation of quality. They discuss two models: the first is a revision of an older model presented in a previous OFT report, while the second is based on a new theoretical model.

The original OFT model defined consumer detriment as the loss in consumer surplus which arises when consumers overestimate quality. Consumer detriment arises in this context because consumers have, for any given price level, a higher demand than they would have in the case of perfect information: therefore, consumers end up both paying a higher price for the units of output they would have bought under perfect information, and paying a price for the extra units which is higher than their willingness to pay under perfect information. The model made some simplifying assumptions (the most important were the assumption that the market was a monopoly under

both perfect and imperfect information, the fact that the monopoly profit was not affected by the presence of the information shortfall, the existence of constant returns to scale under perfect information, and that average costs were higher than marginal costs under imperfect information.[295] Hunter et al (2001) argue that the OFT model had several shortcomings, such as the assumption of a monopolistic structure, the existence of constant returns to scale in the case of perfect information, the incapability of the model to distinguish between an increase in demand due to imperfect quality information and a "real" increase in demand, and the fact that the computation of consumer detriment would require knowledge of prices.

Hunter et al (2001) revise the model allowing for the presence of many firms in the market and adjusting the resulting expression of consumer detriment for a component that was missing in the OFT model. The equation which results from Hunter et al (2001)'s reformulation of the OFT model requires an estimate of the mark-up (see above), profits under imperfect information as well as the demand elasticity for each of the goods analysed, which is typically computationally burdensome. However, assuming that firms are profit maximising, Hunter et al (2001) show that an equation for consumer detriment could be computed which does not require information on the price elasticity of demand. However, it would still require information on the mark-up, sales, profits, the number of firms and the conjectural variation parameter[296] (for which an assumption is required).

Hunter et al (2001) also discuss a new model which could be used to measure consumer detriment in the case of imperfect quality information. They assume that consumers can observe prices (which in their model implies that price dispersion does not arise because, with perfect information and a homogenous product, the "law of one price" would hold) and that the level of imperfect information is exogenous to the model and might be represented by the vertical difference between the observed demand and the "true" demand function. They further assume that there are many firms in the market – and that these firms make their output and price decisions on the basis of the observed demand – and that the market structure is the same under perfect and imperfect information. Marginal costs are assumed to be constant. Assuming that firms maximise profits, they built a quantity model with conjectural variations which allows the derivation of a relationship between prices and the level of demand which is robust to the nature of competitive interaction which arises in the market. They discuss a "short run" equilibrium version of the model, but also a "long run" equilibrium with entry in the market. This model yields a set of equations which could be used to estimate consumer detriment: however, the computations are likely to be data intensive and rely on extensive econometric analysis. In fact, the key parameters that have to be estimated in order to compute a measure for consumer detriment are those representing the extent of imperfect information – represented by the shift in demand due to imperfect information – and the sensitivity of prices to changes in the extent of imperfect information (as well as the market elasticity of demand). In order to do that, Hunter et al

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[295] The model assumed that the monopolist, in the case of imperfect information, spends a fixed amount of resources in order to make entry unprofitable.

[296] The conjectural variation parameter tells how much, given n firms in the sector, the output of n-1 firms would change in reaction to a small change in output by one firm. Particular values of this parameter correspond to Bertrand or Cournot competition or to a perfectly collusive oligopoly.

(2001) propose a method to compute the imputed demand curve i.e. the "price that, for the given quantity sold, would prevail in the market if there was no overestimate of the quality embodied in the commodity" – which relies on a modified version of the well known hedonic price regression technique. In hedonic price regressions, prices are a function of a set of product's attributes plus other variables that may account for the existence of market power (such as the quantity sold). The use of regression analysis helps in deriving prices that take quality into account. However, in the case of imperfect information, consumers end up paying a price which is higher than what the regression line would suggest. Using an appropriate econometric methodology known as stochastic frontier analysis, it is possible to estimate how much consumers pay above what the "real" quality would imply was appropriate. This information is then used to estimate the key parameters of the OFT model. However, this approach can be implemented only on a product basis, and requires information on prices per model, technical features, brand name, quantity sold, etc.

Garella, P.G, and Petrakis, E., "Minimum Quality Standards and Consumers' Information", (mimeo) Department of Economics, University of Bologna and Department of Economics, University of Crete, February 16, 2005

Synopsis: this paper deals with mandatory Minimum Quality Standards (MQS) and studies their effects on product qualities and on welfare in an oligopolistic industry where buyers have imperfect information about the quality of goods. Garella and Petrakis analyze products that are differentiated horizontally and vertically, with imperfect consumer information and more than two firms. They show that MQS change consumers' perception of produced qualities. This increases the firms' returns from quality enhancing investments, notwithstanding contrary strategic effects. As a consequence, MQS policies may be desirable as both firms and consumers can gain from them. These findings contrast with previous results in the literature and provide a justification for the use of MQS to improve social welfare.

Main summary: the paper argues that previous literature on MQS was based largely upon models of oligopolistic competition with pure vertical product differentiation. Another difference was that the previous literature on MQS generally assumed perfect information.

The authors model firms as choosing quality levels in the first stage of a game and choosing prices in the second and final stage. Higher quality implies higher production costs which are sunk in the price competition stage. The model includes two groups of consumers, those who receive correct information about goods, and those who receive information that goods are of lower quality than is true. The second group is more willing to pay for goods when MQS are introduced because the range of uncertainty is reduced. This implies that firms are faced with higher average demand and therefore will increase equilibrium prices – which hurts perfectly informed consumers.

The authors base their welfare analysis of the effects of MQS on the MQS's impact on qualities, prices, quantities and firms' profits. In the model used, the expected utility of consumers varies according to their information regarding the qualities of the two goods. The authors' analysis shows that both firms and consumers may gain from the introduction of mandatory quality standards. The key to the result is the updating by consumers of their expectations about the true quality of the good when a MQS is introduced.

Klemperer, P. (1995). "Competition when consumers have switching costs: an overview with applications to industrial organization, macroeconomics and international trade", Review of Economic Studies, Vol. 62, 515-539

Synopsis: in markets with switching costs (or brand loyalty), market share is an important determinant of future profitability. This article examines firms' choice between setting a low price to raise market share and a higher price to exploit locked-in customers, and considers the effects of entry, interest rates, exchange rate expectations, business cycle and multi-product firms.

Full summary: switching costs give firms a degree of market power over their repeat purchasers, so that market shares are an important determinant of future profits. Switching costs are caused by customers wanting products to be compatible with past investments in (among other things) equipment, establishing the relationship, finding out how to use the product, and understanding product characteristics (e.g. drug reliability). These can also be related to search costs and network externalities.

If there are many firms or if firms are asymmetric (so that the firm with lower market share has a higher incentive to undercut), then firms will be less likely to price at the monopoly level with their locked-in customers in a final period. Price in the first period will be lower if the effect of switching costs is taken into account because firms will place a value on establishing market share to generate profits later. A model with some customers who are not completely locked-in shows that firms with lower market shares set a lower price, unless there are very substantial economies of scale (as the firm will have relatively few long-standing customers whom they can exploit). In extreme models a firm can be made worse off by increasing market share, because its competitors' shares are reduced, making them much more aggressive if they have a discontinuous strategy. Thus entry will be more deterred by a small (aggressive) firm than by a large firm. However, consumers predicting these effects will be less price elastic because they will assume that prices will rise later once they are locked-in and will rise more as the firm becomes successful at locking in customers.

The (two-period) model is then extended to allow new customers to join the market every period in an infinite horizon. Firms are unable to discriminate between the locked-in customers and the new customers. The result holds that the firm prices lower in each period than if it ignored the benefit that increasing market share will give it in the future. However, because the firm's demand is more inelastic prices in each period will generally be higher than in the absence of switching costs. In a simple model with no discounting and a permanently fixed price, prices are the same with or without switching costs. However, discounting reduces the importance of future market share relative to current profitability. Secondly, if a firm raises price today, its competitor will gain market share and thus is likely to raise prices tomorrow. Thus there is an incentive to reduce future competitive pressures. Thirdly, new consumers are also less price elastic because they are more affected by permanent prices and know a low price today leads to higher future prices. These increased prices will increase profits.

Higher anticipated rates of market growth increase the relative importance of the future and thus reduce prices. There is empirical evidence to support this, but it should not be taken to mean that prices are lower than in the absence of switching costs. Switching costs make it more costly to

consume multiple brands, which may reduce demand if consumers value variety. This may lead to lower prices and especially profits. A higher real interest rate corresponds to a smaller discount factor and thus raises prices, but in other periods consumer behaviour may be affected and firms' captive market share may be reduced leading to lower prices.

Prices may be relatively insensitive to current exchange rate changes because the effect of lower costs (which should reduce prices) will be countered by the fact that the current market will now be worth more than the expected future market, which will act to raise prices. An anticipated future change will have a future cost and a future revenue (interest rate) effect, and these two effects act in the same direction, so this can be significant. A "boom" where demand across all customer groups rises simply focuses firms' attention on the current period and thus increases prices. However, if the boom is due to more new customers (who will later be locked in) this may lower prices. Switching costs may also lead to counter-cyclical margins because firms are more likely to be liquidity-constrained in recessions, will place greater importance on short-term profits and will cut investment in market share. This argument has some empirical support.

When firms are differentiated by switching costs they have less incentive to differentiate in other ways. If there is product variety consumers may purchase from more than one firm and thus be relatively price sensitive. Thus prices may be higher with identical than with differentiated products when there are switching costs. Individual firms may have an incentive to create a range of products if consumers value variety but have costs from switching suppliers. Thus switching costs can explain mergers that broaden product lines, e.g. in aircraft. Firms may offer too much variety (socially): for example, when one new product is offered it may generate extra business on other product lines. For instance, if a shop opens on Sunday it may encourage people to use that shop all week. Using the above analysis, competing firms often offer very similar product lines. Firms are more likely to choose compatibility with other firms' products when their products are not functionally identical because variety increases demand and differentiation reduces switching costs. Firms may also offer coupons to existing customers to commit themselves to remaining with existing customers and so relax competition. These do not guarantee prices but merely place a surcharge on outside customers. Firms also try to enter into contracts that raise their customers' switching costs and to share the benefits of this (the entrants' cost of gaining customers is increased). However, switching costs may actually facilitate entry because firms cannot charge high prices to exploit their old customers and at the same time charge low prices to compete with the entrant.

The welfare losses of switching costs may be substantial, and when consumers do switch between firms, direct welfare losses are suffered. There may also be costs involved in creating switching costs. This suggests policy should move away from discouraging causes (e.g. frequent flier miles) towards promoting solutions (e.g. standardisation, quality regulation, and information). In markets with switching costs consumers care about firms' futures and this may influence financial structure.

Shy, O (2002) "A quick-and-easy method for estimating switching costs" International Journal of Industrial Organisation, Vol 20, 71-87

Synopsis: this article presents a method for a quick-and-easy calculation of consumer switching costs among brands in a given industry. The theory maps observed brands' prices and market shares onto the switching costs which deter the consumer of a specific brand from switching to any other competing brand. The article demonstrates how users' switching costs can be directly calculated in (a) the Israeli cellular phone market, and (b) the Finnish market for bank deposits. This calculation method can be used to calculate switching costs in a wide variety of other industries, such as airlines, health services, computers, software, and telecommunications.

Full summary: The ability of firms to charge prices above marginal cost depends on an element of lock-in, generally switching costs. These costs may be consumer specific and relate to individual human capital and so are normally modelled as a utility loss. The method of estimation here differs from previous attempts because it does not use any econometrics. There is no "Nash-Bertrand" equilibrium for the market so the solution relies on a stability condition (the Undercut-Proof Property UPP). It is argued that this is appropriate partly because it does not contradict Nash. In this model the (two) firms each set the highest price at which the other firm will not find it profitable to undercut their price (in this model each firm gets the same profit in the equilibrium as they would if they undercut their competitor). This first simple model assumes all switching costs are equal (all have constant utility from each product with the current consumption pattern purely historical). If a firm charges a low price, there is a distinct jump from having only the previous customers to acquiring all customers, where everyone switches because the price fully subsidises the switching costs.

This is then extended to allow a switching cost for each brand to be determined. This cost is interpreted as not being due to the brand *per se* but to the consumers of that brand (i.e. those people that previously bought this brand are different from the rest of the population because they have different switching costs, which is necessary, given products with equal utility). In this model the firms set prices to prevent themselves being undercut by the firm with the smallest number of customers (which according to this model is the firm with the lowest profit). This final firm sets prices so that the firm with most customers does not undercut. Thus the switching cost of the customers of all firms can be defined, using the customers and price of the smallest firm in the market and its own price and customers (there are no costs of production in this model). The higher a firm's price and the more customers it has, the more the customers must be locked-in. In this model the customers of each product will remain equal over time. Earlier work has produced equilibrium where firms served groups with different switching costs but the switching costs of each group were distributed in the same way.

In this model customers with low switching costs purchase the less expensive brand, and the banking example also has smaller banks attracting customers with low switching costs (which could be explained by the possibility that, if its customers had higher costs, it would not have lost them all to competitors). The model looks at telecommunications and finds that switching costs do not exceed the price of the phone. This may be because consumers tend to upgrade when switching networks and so do not regard the entire purchase as wasted, which will compensate for some other losses such as time and effort.

In the banking industry, the authors identify a range of potential elements of the "price" namely direct fees, transaction fees and foregone interest, and compute these on an annual basis. In considering whether to switch, the author decides one should use the discounted (4 per cent) sum of all future (infinite) payments. This is based on the idea that people rarely switch products and thus will expect to stay with the same product forever once they have switched. As mentioned, this shows that larger banks generally serve customers with higher switching costs and higher value of time (apart from an exception that is supposedly due to significant government custom). Switching costs are estimated to be 0 to 11 per cent of the average balance of a depositor.

The model is then extended to differentiated products where demand is not perfectly elastic and a consumer with certain tastes gets more utility out of a product the closer it is to those tastes (or the closer the shop is physically if this is a transportation parameter). This model returns to a two product situation where one has differentiation of 0 and the other 1. The proportion of customers purchasing each product is found and the undercutting property is still defined as charging a price so that all customers purchase your product and the switching cost and differentiation are fully subsidised. Firms maximise, given that the other will not want to undercut in this way. The symmetric equilibrium with equal prices has price rising with switching cost. If the switching cost is zero, then past purchase has no influence on the future, and half of each firms' customers will switch each period. If switching costs are positive there will be some inertia.

The problem of identifying switching costs is to decide whether they are a stock or a flow. If they are not usually borne or paid by consumers they should be a stock (i.e. one off). This causes a problem because prices are flows so the frequency of purchase and whether switching costs should be measured per unit or per period is unclear.

The model then looks at a dynamic version of this previously static method but adds the feature that consumers will gain no utility if prices rise (i.e. they will not tolerate price rises). It finds that the dynamic version converges on the static version as the discount-rate falls to zero. In this example "price" is the period price and hence this model uses flows not stocks.

Carlsson, F., Lofgren, A., "Airline choice, switching costs and frequent flyer programs", mimeo, Gothenburg University, 2004

Synopsis: switching costs are costs that customers face when switching from one firm to another. In markets such as the airline market, where repeated purchases are common, switching costs may be substantial. In this paper, the authors estimate switching costs for domestic airline routes in Sweden between 1992 and 2002. In addition they also test for the determinants of switching costs. In particular, they test to what extent factors such as frequent flyer programs and flag carriers have an effect on switching costs. The paper ends with a brief discussion on the welfare consequences of switching costs, where the connection between habit formation and switching costs is discussed.

Full summary: switching costs may be created in several ways such as specific product knowledge, a reward system for repeated purchases, perceived quality differences, or habit. The paper uses the method from Shy (2002) to estimate switching costs using prices and market shares and then tries to find determinates.

Switching cost are incurred when changing to a functionally equal competitor's product (only in repeated purchases), e.g. learning or transaction costs. Following Shy: consumers can either buy the same product A in the next period or switch and pay the price of B plus switching cost of A. If the switching cost is less than the price difference then all consumers will switch, otherwise the number of customers remains the same. It is then assumed that all but the smallest firm set prices based on the smallest not undercutting, and the smallest firm ensures the largest does not undercut. The equilibrium price of firm (i) is then $S_i = p_i - p_k * N_k/(N_k+N_i)$ where k is the largest firm, N are customers, and p prices. Thus switching cost rises with equilibrium price and market share.

Frequent flier programs are thought to increase switching costs (causing barriers to entry and damaging competitiveness), especially when they are non-linear (increasing in the marginal loyalty) and when one airline dominates the market. The number of departures may also have an effect, but the effect cannot be distinguished from factors that firms do not influence such as habit.

The authors use data on list prices (not actual prices) and the price of most flexible ticket (the most expensive implies an upper limit on absolute cost). This might imply a focus on business switching costs, but the passenger numbers are still total passengers as the data cannot distinguish between different categories.

Results: The flag (dominant) carrier SAS operates from a larger airport further out of Stockholm compared with many competitor flights, so this may add to switching cost. For SAS the average total switching cost for the 7 routes was 70 per cent of the ticket price (3,500SEK). It is thought that this ratio would remain for cheaper tickets.

The number of departures is significant (as departures increase the benefits of travelling, including flexibility/delay/reschedule, all other things equal). The third firm had high switching costs but there are few observations. The switching cost of SAS dominant was higher than the others even after allowing for departures (12% of ticket price, gross effect). The closer airport had a higher switching cost. When the frequent flier system was in operation without restriction (it can

now only be used on monopoly routes) the switching costs of competitors was lower and that for the operator of this was positive (12% net effect). Previous work has shown values of 11 per cent and 8 per cent for different passenger groups, and Nako (1992) produces 10 per cent on average for an airline with 30 per cent share. Thus they agree with this study.

Habit formation: this is when higher past consumption increases present consumption. In the presence of habit formation, it can be an advantage to have an initial monopoly in order to establish a customer base. Literature suggests that transport choice is habitual, or even addictive (Reser 1980). Carrasco (2002) tests for habits in different goods using panel data and finds them in transport. However, measurement is difficult and habits could be confused with switching costs or inertia, although switching costs can be found even in the absence of habit formation.

Where habit formation is rational, consumers must be taking future impacts into account and hence habits do not give rise to a welfare loss for the individual. In this case, the welfare effects of switching costs would be overstated – although welfare losses might still arise where there were external effects such as a limitation on competition in a market. Hence, policy targeted at the externality and not at the habit *per s*e may be appropriate. If habit formation is not rational then policy in relation to switching costs should perhaps focus to a greater extent on limiting habit formation.

Hortacsu, A. and Syverson, C., "Product differentiation, search costs, and competition in the mutual fund industry: a case study of S&P index funds", Quarterly Journal of Economics, 2004

Synopsis: the number of retail S&P index funds operating in the US mutual funds industry quintupled over the 1990s, to get to as high a number as 85 in the year 2000. S&P index funds seem to provide a fairly homogenous product, as they attempt, by definition, to reproduce the performance profile of the S&P 500 index: however, price dispersion in the sector is significant, and increasing over time. The paper by Hortacsu and Syverson attempts to provide an explanation of how it is possible that many firms can operate in a fundamentally homogenous sector and support significant and increasing price dispersion. The authors build a model of competition for this sector which explains the observed price dispersion through the incorporation of investors' tastes for attributes other than portfolio composition and informational search frictions that deter investors from finding the fund offering the highest utility.

Full summary: Hortacsu and Syverson (2004) show that product differentiation actually played an important role in explaining the price dispersion one can observe in the data, as investors appear to value observable attributes of the funds not related to portfolio composition, such as fund age, total number of funds managed by the company, and tax exposure.

The empirical results show that, once product differentiation is accounted for in their model, the existence of small search costs can explain why the fund that offers the highest utility to consumers does not capture the whole market (in fact, the market share of the dominant player went down over the observed period, as did the usual market concentration measures). One of the most significant results of this paper is that the authors were able to recover estimates of the distribution of search costs which show that while average search costs declined over the sample period (perhaps because of the emergence of new technologies which lowered search costs), costs for those at the upper per centiles of the distribution did increase: this is theoretically consistent with entry into the market of many new, inexperienced investors with higher than average search/information costs.

The existence of search/information costs can impose welfare losses on consumers, both direct (money which is actually spent by consumers to learn about funds' features) and indirect (some consumers might suffer a detriment when they purchase funds that do not offer the highest expected utility) which grow with the number of available funds in the market.

Hortacsu and Syverson (2004) provide some empirical estimate of the welfare loss created by search costs, with respect to a situation where the largest company is granted a monopoly (and search costs are zero). They find that the static welfare loss for consumers arising from

search/information costs was in the order of about $140 million in 1996 climbing to $386 million in 2000.[297]

Hortacsu and Syverson (2004) also compute other welfare gains and losses that would occur if the number of firms were reduced to one: welfare gains would stem from fixed costs savings, while welfare losses would arise from a loss in (horizontal) product variety, which tends to reduce utility for consumers. According to their computations, the overall welfare effect of creating a monopolist would still be positive for all years in the sample with the exception of the last one (2000). However, given the many simplifying assumptions they were forced to make in the calculations, Hortacsu and Syverson (2004) do not make any firm policy recommendation, because they feel that some of the costs of creating a monopolist (such as the loss of product variety) could have been underestimated and some others were not even taken into account, such as the standard deadweight loss of monopoly or, if regulation were imposed to create the monopoly, the welfare costs stemming from it.

The main insight provided by this paper is that the existence of search costs could provide significant welfare losses for consumers, but that policymakers should think carefully about measures aimed to deal with these losses, as policies directly aimed at reducing the number of players could entail welfare losses at least as a large as these generated by the search costs they were designed to deal with.

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[297] The savings in search costs generated by changing the market structure to a monopoly actually declined over the sample period in terms of basis points. However, given the growth in the market that occurred over the period, total cost savings would have actually increased.

Waddams Price, C., "Reforming household energy markets: some welfare effects in the United Kingdom", mimeo, University of East Anglia, 2004

Synopsis: this paper provides a summary of the research undertaken by the author on the effects on consumer welfare of the reforms of household energy markets in the United Kingdom. The sections of the paper which are most interesting (and most relevant for the project) are those dealing with market power and switching in the UK retail energy market.

The author reports the research described in Giulietti et al (2003) who used a sample of UK households who were asked, among the other things, what savings they would require to switch as a proxy for the price premium consumers would be ready to tolerate from the incumbent. The authors further assumed that entrants priced at cost, and from this assumption, together with the information provided by households on the price premium they would tolerate from the incumbent, the authors derived the profit maximizing mark-up for the incumbent. The results suggest that, at the time of the survey (1998), it was most profitable for the gas incumbent to set a price about 33 per cent above that of its competitors, which would have meant loosing 45 per cent of the market. Waddams Price (2004) argues that, as of 2004, with the incumbent having still about 60 per cent of the market, a prediction of a mark-up of about 33 per cent is still realistic. The model estimated in Giulietti et al (2004) suggests that much of the incumbent's market power is due to consumers who do not bother to switch: their analysis also seems to suggest that if consumers did not believe that the incumbent would match the offer of the new entrants, the probability of switching would significantly increase and, with it, market power would fall.

A related set of issues that is addressed in this paper is the gains from switching enjoyed by consumers. Some interesting information is provided on this topic in Giulietti at al (2003). First of all, it appears that older people and consumers who used a prepayment method were less likely to switch; second, consumers' awareness increased soon after liberalization but eventually fell. The authors calculated the gains from switching that consumers could have enjoyed if they had switched to the best available offer for their level of consumption and payment method. The gains from switching depend on the assumptions made by the authors on the behaviour of suppliers: if they were assumed to behave competitively, with the incumbent matching their prices, the authors computed consumer gains of about one billion pounds (slightly higher than the companies' expenditures on marketing and related costs); by way of contrast, in the case in which the incumbent raises prices above those which prevailed under regulation, the authors reported consumer losses of about one hundred million pounds.

Ireland, N., "Firms' strategies for reducing the effectiveness of consumer price search", University of Warwick, 627, 2002

Synopsis: the paper presents a model of competition based on some buyers making price comparisons between two suppliers. The difficulties of making appropriate comparisons are made greater by exclusive dealer agreements and restrictions, and by suppliers trading under more than one name. It is argued that suppliers will set prices using mixed strategies, and that prices become less competitive as price comparisons become more difficult. The implications for competition policy are considered in the light of recent judgements.

Full summary: firms can adopt strategies of vertical (exclusive dealer) agreements and continue trading under different (non-transparent) brand names. These activities mean that consumers believe that comparison is possible and they are searching other suppliers when in fact they are simply observing a different distribution channel for the same firm. If all prices are expected to be the same, then there will be no search because it will not be in the private interest of consumers. Previous models have assumed that sellers have different costs of search, whereas this model assumes that there are two types of consumer – those who visit only one shop ("one-timer") and those who visit two shops and buy at the cheaper ("two-timer"), so long as it is below their fixed value.

With identical firms there is a range of prices over which they mix and so the consumers cannot learn which shop is cheapest overall. The higher the price, the higher the profits the firms will make from one-timers (and some two timers) but the fewer chances they will have of selling to a two-timer. With the entire population being one-timers, monopoly pricing will occur, whereas if they all search then competitive pricing occurs.

When each firm in the industry owns two brands, they will each earn the same returns from one-timers and two timers who visit different firms, but there will be an additional effect from two-timers who visit only their stores. These people will buy at the lower of the two prices and so profits will be higher when they cannot gain from this comparison because the prices of the good in each store are the same. The result of this is that the both the mean price and profits are higher than would otherwise be the case. In this model, if only one firm joins two brands together, the non-merged firms make more profit than the merged firms, because the merged firms will raise prices and the others can undercut and increase sales (a similar incentive to cheating on a cartel). In this model there is no overall welfare loss, just a shift from producer to consumer surplus. The *prices are higher with pair-wise ownership than when there are half the number of independent firms*, thus it is the effect on search that is significant and not just the number of firms.

If half the population are one-timers, then there is significant monopoly, and further monopolisation by pair-wise ownership tends to reduce the variability of prices i.e. they become monopoly prices, and reduce the return to searching. However, if the market is competitive this introduction of monopoly power would provide an incentive for searching and thus keep market prices at a balanced equilibrium. In the model there are three possible equilibria, one where no-one searches and there is monopoly pricing, the second is unstable, and the third is where only those with a high cost of searching are one-timers. Returns to searching are highest in this model when there are few firms and most people search.

When products are differentiated, distribution agreements may mean that the identical product is available only from a single firm's distribution channels. Thus consumers who believe it is easier to search the prices of identical products to identify the cheapest source rather than look for similar products in other stores (which requires some knowledge of specification) will automatically check only the first firm's prices and are more likely to believe that the purchase is good value even if they visited many shops. This argument does not depend on market dominance. In the OFT case concerning Dixon's exclusive distribution agreement with Packard-Bell, complainants argued that firms needed to stock prominent brands in order to compete because testing of price levels needed virtually common brands. Thus customers would find comfort from comparing Dixon Group stores and would not be able to compare elsewhere; also any price match guarantees would be worthless (although there may be double margin reduction or economies of scale to this agreement). The article also argues against the Tesco-Levi ruling suggesting that Tesco provides a reliable price reference for clothes and would thus turn the market into a more competitive one rather than a monopolistic one where prices cannot be compared.

Own-brand products are also excluded from price match guarantees and may have hidden identities in order to hide the fact that price comparisons are not possible. The price matching guarantees will succeed in raising price because they increase the confidence in the published prices. Competition policy is usually based on market definition (Cournot). In Bertrand models of price setting (such as this paper uses) this is not relevant - only the ability to compare prices is. Thus policy should move towards examining the possibility of price comparisons.

Wilson C., "Price deception, market power and consumer policy, Centre for Competition Policy W.P., 04-01, 2004

Synopsis: this paper presents a model in which a firm attempts to gain market power by pricing above the competitive market price and simply trying to persuade ill-informed consumers not to search for other lower priced firms. Fictitious price comparisons, or false sale signs could be used in this way to deter consumer search deceptively and profitably. A simplified model shows how this mechanism could exist when combined with moderately enforced consumer regulatory policy.

Full summary: in order for false communication to affect consumer actions several factors are needed: the consumer must be willing and able to search before the communication, the consumer must be ill informed of the price distribution, and less informed than the firm, and the signal must have some credibility. Without credibility, the signals will be ignored and will not deceive.

Price match guarantees may be one type of credibility mechanism to affect search decisions. (This theory is now more popular than the idea that they are designed to aid collusion.) If a firm can trade under different names, unknown to the consumer, this can deter search because further effort may simply check the same prices under a different name (Ireland 2002). In these models it is not the costs of search which are influenced but the perceived benefits of search.

Andersen and Simester (1998) constructed a marketing model and found that the optimum strategy was to place a discount sign on all genuine offers and a certain proportion of the non-sale items in a multi-product firm. This conclusion was supported by interviews with store managers. Signs on all goods would make them meaningless but a proportion gives some credibility and thus market power and thus the firm can charge a slightly higher promotional price for a signed good yet still prevent search.

If the placing of a discount sign is costless in a single good game then it will always be placed while it has any affect on the consumer's beliefs and purchases. Thus the consumer will rationally ignore the sign and follow the existing beliefs. If there is government regulation (or another effect e.g. loss of reputation from misleading consumers) then there is a cost to the false message. If the average cost of the false message exceeds the value to the store of the sales that sign can generate, then it is never worthwhile lying and adverts will be truth telling (only used for proper offers). In this model the outcome is efficient with the consumer only going to the next shop when it offers a better deal.

When the cost of lying is not this great there will be an uninformative equilibrium where consumers do not trust signs so none are used, and there will be a mixed equilibrium. In this as in the multi-product model the sign will be (truthfully) used whenever the price is the cheapest available and used a proportion of times when the other store offers a cheaper price (such that the advertiser is indifferent between placing and not placing given the consumer's probability to buy). In this model lying is only possible when outside costs to lying provide some credibility, but overall consumer welfare is unaffected by the level of outside cost (as long as it is less than the shop's value of a sale). This occurs because as the cost of wrongly believing the advert (and

missing the cheaper product) increases, the cost of searching in the second store when there is no cost saving falls. However, even in this highly simplified model this is only a static result where firms' prices are given exogenously.

Grout, P., and Sonderegger, S., "Predicting cartels", Economic discussion paper, Office of Fair Trading, March 2005

Synopsis: this paper investigates the economic factors associated with the incidence of cartels. The paper follows three approaches: (1) theoretical: a study of the theoretical economic literature to see what factors have been useful in the modelling of cartel stability and formation; (2) empirical: use of legal cases and economic data to identify factors relevant to the identification of cartels and then use of an economic model to predict the probability of cartels within a range of industry classifications; (3) case studies. The authors then use the findings of the three approaches to provide an overall assessment that can be applied to any market to indicate the likelihood of that market containing a cartel.

Full summary:

Economic literature: to model self-enforcing agreements economists borrow from the theory of repeated games, with collusion being maintained through the threat of credible punishments. There are several factors identified as affecting the likelihood of collusive behaviour.

Factors facilitating collusion include:

- Higher entry barriers;

- A smaller number of firms in the market;

- Demand growth;

- Frequency of interaction.

Factors thought to hinder or restrict collusion include:

- Persistent demand instability;

- Private information;

- Cost asymmetries and quality differences.

Empirical analysis: the empirical investigation uses the incidence of cartels in an industry as the measure of cartelisation and makes the assumption that differences between industries in key economic variables help to explain the different incidence of cartels.

Grout and Sonderegger acknowledge that there are almost certainly cartels in existence that have not yet been discovered and indeed may not be discovered. Therefore implicit in their approach is the assumption that the location of known cartels across industries is informative about the whereabouts of other cartels.

The authors use a statistical model which uses economic independent variables to explain the level of cartelisation in any industry. Given the specific values of the independent variables in a particular industry the model can then be used to predict the probability that a cartel exists in that

industry. Variables used include total turnover per firm as a scale measure and C3 (market share of the three largest firms) as the concentration measure.

The report uses cartel evidence from EC cases between 1990 and 2005 and from US Department of Justice cases of horizontal price-fixing between 1994 and 2005. For each jurisdiction an index is constructed that gives the number of cartel cases discovered in the industry during the period. Strong correlation is found between data sets. Having allocated the cartels to their SIC three-digit classification they find the correlation between US and EU cartels is 0.68.

Three econometric techniques are used:

- The logit model provides a prediction for each industry that a cartel exists within that industry;

- The ordered logit model provides three probabilities for each industry – that no cartels, one cartel and more than one cartel exists in the industry; and

- OLS predicts the number of cartels that are likely to exist in an industry.

The authors calculate for each industry the probability that a cartel exists in that industry and then rank all industries. They list the top 30 industries (in terms of cartel likelihood) along with the probability that each has a cartel. The three industries most likely to have a cartel where no cartels had yet been discovered were: telecommunications (probability = 0.84); manufacture of aircraft and spacecraft (probability = 0.65); manufacture of grain mill products, starches and starch products (probability = 0.61).

The report provides detailed rankings of all industries in the annexes.

Case studies: the authors examine a series of case studies. Most of the case studies referred to the shipping or basic chemicals industries (the industries with the highest number of cartel cases in the data set) or featured among the cases that generated the largest fines during the period 1998-2002.

From the case studies common trends are identified, which include:

- Demand factors are important in the formation of cartels, with formation generally linked to a decline in prices;

- Intense competition can precede cartel formation;

- Barriers to entry can aid cartel formation;

- Transparency and communication are important for cartel stability;

- The markets within which cartels operate are often very concentrated with a small number of firms;

- There can be considerable differences in the market shares held by cartel members.

The authors find that the same trends run across all categories of cases.

Assessment: from the three approaches the authors identify three fundamental market characteristics which are associated with cartel formation:

- Homogenous products;

- Absence of sustained market volatility;

- Stability among the leading players.

They see the three characteristics as almost basic requirements for cartel formation and suggest that a market needs at least two high scores out of three to favour collusion.

Grout and Sonderegger then identify some collaborative factors associated with cartels, none of which are essential but which have been shown to be relevant factors. These are:

- Transparency – cartels are unlikely if there is no transparency;

- Payroll effects – relatively high payroll per employee in the market means cartels are more likely;

- Big firms / number of firms in the industry – cartels are more likely with large concentration and /or relatively few firms in the market;

- Barriers to entry – high barriers to entry or potential for barriers make cartels more likely;

- Capacity – excess capacity makes cartels more likely;

- Ranking in economic model.

If a market scores highly on the fundamental characteristics and collaborative factors it suggests that cartels may be present. However, the authors state that a third question should also be addressed, that of why and when, i.e. are there good reasons for those particular firms to be colluding at that particular time? They identify two categories where there is good evidence for why higher and safer profit (created through collusion) may be an issue for a market at a particular time. These are:

- There has been a long run decline in demand and/or prices affecting all or almost all companies;

- There is a sudden market shock affecting all companies in the market.

However, the authors warn that the above two categories only focus on some factors that could be critical and that the absence of these factors does not imply that a cartel is unlikely. Therefore

while the fundamental background and collaborative evidence can almost take the form of a tick list, more consideration should be given to the questions of "when" and "why."

Matraves, C., and Moffatt, P., "Industrial Concentration and Market Integration in the European Union", Lyons, B., Economica (2001) 68, 1-26

Synopsis: Lyons et al develop a methodology for endogenously determining the geographic market at which the competitive forces forming the industrial structure of a market are most likely to have been operating. (As discussed in section 20, geographical market definition is an important issue which needs to be addressed when calculating market monitoring indicators relevant to market power problems.)

The key principle underlying their methodology is that if the competitive process has been fought out at the EU (respectively national) level, then it will be EU (respectively national) market size that is most closely associated with the market structure that has evolved.

They use a large cross-section of 1980s data on the four largest EU countries as well as for the aggregate EU to test some key predictions from the theory of industrial structure over a wide range of countries.

Their estimates suggest that in the late 1980s the degree of integration differed across the EU. Germany was the most integrated country followed by Italy and the UK. France was the least. They also find that industries competing using the endogenous fixed costs of R&D and advertising have a much higher level of concentration than industries competing mainly on price.

Full summary: Market definition has two dimensions, product and geographic. Lyons et al note that international trade is a strong indicator that the geographical market for many industries extends beyond the nation. They acknowledge that there are disadvantages in using actual trade to measure integration. For example, potential trade may be a sufficient threat for effective international competition even though actual trade flows are small.

They use actual trade as a rank indicator of integration. They assume a simple dichotomy of integrated and unintegrated markets and that other determinants of concentration such as available production technologies do not depend on the geographic market. They consider two regimes:

- In an integrated market, EU market structure is determined primarily by EU market size;

- In an unintegrated market, national market structure is determined primarily by national market size.

They assume that the probability that a particular industry's structure is determined at EU level is an increasing function of the intensity of intra-EU trade. They also assume that global integration raises concentration.

They estimate two equations, one assuming a national market and the other assuming an EU market. If they use the model to estimate a market at the national level when the market is actually unified there will be a large "noise" component in their estimates compared with estimation at the global level. If on the other hand they apply the EU model when in truth the no outside trade situation holds there will be a large noise component in the estimates relative to

those obtained when the separate country model is fitted. The authors recognise the link between national and EU concentration and allow for these using "adjustment factors".

Concentration ratios: before using econometric results Lyons et al report some observed statistics on comparative concentration. They construct their own concentration ratios, which involved identifying the leading firms in each industry, estimating their disaggregated production, and estimating the size of EU production.

They based all their calculations on production within the EU, excluding both imports and non-EU production. They constructed concentration ratios for 100 NACE 3-digit manufacturing industries covering 98.9 per cent of all manufacturing production. They also estimated comparable national concentration data for France, Italy, Germany the UK and the United States.

As there was no EU census of manufacturers they first had to identify candidate leaders in order to obtain estimates of the sizes of the largest firms in each industry. EU data on advertising and R&D were not available at the required level of disaggregation and so they used UK and US advertising data and UK, Italian and US R&D data.

The US four-firm concentration ratio averages 31.4 per cent while the EU averages 20.1 per cent. Concentration in the "big four" Member States averages 33.3 per cent.

Concentration ratios are calculated for different types of industry. The authors differentiate between type 1 and type 2 industries. Type 1 industries are those which compete mainly on price. Type 2 industries are those for which endogenous fixed costs such as advertising and R&D are important, while economies of scale in production are fairly insensitive to the size of the market. Type 2 industries are split into 2A (engage in significant advertising but not R&D), 2R (engage in significant R&D but not advertising) and 2 AR (both advertising and R&D intensive).

For every country a substantial and usually significant difference is found between type 1 and type 2 industries. There is evidence to support an initial hypothesis that type 2 industries are on average more concentrated than those that do not advertise or engage in R&D.

Econometric results: the authors categorise industries into two groups: those for which there is an EU-wide market and those in which there are national markets in each country. In order to distinguish whether the national or EU market has had the greater influence on the formation of industrial structure, a two-regime estimator is used which uses intra-EU trade as an indicator of the appropriate regime.

It is assumed that each country has a threshold level for intra-EU trade t*. If actual trade t_i in an industry exceeds this then the industry is integrated for the purpose of defining the relevant market.

A table is constructed which contains the percentage of industries in each country, and for each industry type, for which market structure was more likely to have been created by influences working at EU rather than national level. Industries are allocated between EU and national markets for each country, i.e. whether they fall above or below that country's estimated trade threshold. The UK is found to have a trade threshold of 31 per cent and Italy one of 25 per cent.

Around half of all type 1 industries operated at the EU level, but fewer type 2A (advertising intensive) industries did. Nearly all industries where R&D was a major factor had a structure more consistent with an EU rather than a national market.

Klapper, L., Laeven, L., and Rajan, R., "Business Environment and Firm Entry: Evidence from International Data", World Bank Policy Research Working Paper 3232, March 2004

Synopsis: Klapper et al use cross-country cross-industry data to explore the impact of regulations on entry. The main reason why this article is of interest is that they construct indicators using the Amadeus database, which (at the time the paper was written) included financial data on over 5 million firms in Western and Central Europe. In particular, they compute entry rates across sectors and then test the effect of industry and country level characteristics on new firm creation. They find that entry regulations tend to hamper entry, especially in industries that have naturally high entry.

Full summary: Klapper et al study how the business environment in a country drives the creation of new firms. They focus on regulations driving entry.

They use cross-country cross-industry data to test the effects of regulations. For example, by using proxies for the "natural" rate of entry in an industry, they test whether countries with high entry regulations have relatively lower entry.

The authors use firm level data from the Amadeus database. At the time the paper was written, this database contained financial information on over 5 million private and publicly owned firms across 34 Western and Eastern European countries.

When calculating entry rates, the year of incorporation is first used to calculate the age of the firm. Next, firm-level employment is used to calculate the contribution of new and small firms to employment creation.

The Amadeus database assigns companies a 3-digit NACE code (the European standard of industry classification), which the authors use to classify firms and construct dummy variables. In the analysis NACE codes at a 2-digit level are used so that there is a sufficient number of firms per industry.

Sample selection: Klapper et al use the 2001 edition of Amadeus and limit their sample to the years 1998 and 1999. They start with a sample of about 3 million annual observations over the years 1998-1999. They then impose some restrictions on the data.

First, they require firms to have certain basic accounting information in their accounts. Next, they delete from the sample firms with only consolidated statements. They also exclude certain industries including country specific industries such as mining, utilities, financial services, education and government/ public sector. This leaves 47 NACE industries.

Finally, they exclude all legal forms other than the equivalent of public and private limited liability corporations. Several European countries where the coverage is incomplete or the data quality is poor are also removed from the sample.

National statistics from Eurostat (2003) on numbers of and employment in firms of different sizes are used to test whether the Amadeus sample is biased towards larger firms. Four countries are

excluded where the Amadeus data is not sufficiently representative of the national statistics data in terms of firm size. The final sample contains 3,371,073 firms in 21 countries.

Measuring entry: when measuring entry a new firm is defined as a firm with age 1 or 2 and an old firm as a firm that has age greater than 2. The analysis focuses on the contribution of new firms to the total number of firms and to employment creation.

The average entry rate across industries and countries calculated over 2 years is found to be 13.3 per cent (corresponding to an average annual rate of 6.6 per cent). There are large variations across countries from a high entry rate of 19.2 per cent in Lithuania to a low of 3.5 per cent in Italy (over 2 years).

There are also cross industry variations. The highest entry rates are in communications, computer services and services and the lowest are in manufacturing of chemicals, construction and transport. Most entry involves small firms.

Impact of the business environment: an econometric model is used to explore the impact of the business environment on entry levels. It is found that "naturally high entry" industries have relatively lower entry in countries with more onerous entry restrictions.

OFT, "Consumer detriment", 2000

Synopsis: this paper brings together the experience of the previous consumer survey work of the OFT between 1984 and 1994, the analysis of detriment contained in a 1997 research paper by London Economics, and the work on exclusion, distribution and income effects (papers in 1999 and 2000). All this is applied to a 1999 survey of 2,200 people to produce estimates of the level and characteristics of consumer detriment in the UK. The overall estimated level of detriment in the UK was £8.3 billion in cash terms, or £9.6 billion in terms of welfare loss (excluding unrevealed losses).

Full summary: the definition of consumer detriment used is the difference between the outcome that consumers experience with available information and the outcome they would experience with the further information they could usefully obtain and assimilate, perhaps by additional shopping around. This difference is, however, to be measured after deducting the cost of obtaining and assimilating such additional information, and involves specifying the additional information that could be usefully acquired. Such costs are to be considered alongside alternative distribution channels and other structural changes.

The survey covered problems experienced in the past year (based on unprompted and random prompts, and on number of occurrences) and looked at a maximum of two problems from each person randomly selected (1,500 detailed problems). Consumer detriment, in the form of problems of which the consumer becomes aware, is estimated, in cash terms, to be £8.3 billion per annum. This estimate, which is subject to a 95% confidence interval of ±£2.7 billion, corresponds to 1.5 per cent of annual household consumer expenditure or roughly £180 per annum for every adult in the UK (1.1 per cent of GDP). This ignores any stress caused, which is linked to a failure to provide redress and is found to increase with the time taken to resolve a problem.

If allowance is made for the distribution of income amongst UK consumers and assuming an elasticity of welfare of 1.3, consumer detriment in income weighted terms that reflect lost welfare would be at least £9.6 billion per annum.

The total number of consumer complaints and concerns in the UK is estimated at 85.8 million annually, with a 95 per cent confidence interval of ±7.3 million (adjusting for shared problems, and checked but not adjusted for recall bias). The commonest problem encountered was of defective goods or substandard service, accounting for nearly 50 per cent of all cases. The next most common problems involved unfair selling techniques, misleading claims and misinformation (15 per cent of cases). Problems in getting faults put right or obtaining adequate redress accounted for 11 per cent.

Although the format changed, comparability with the earlier studies remains high. The types of purchase giving rise to complaints were similar to those identified in 1994. Problems characterised by the nature of the sales technique, such as junk mail (18,000), and doorstep and telephone selling (7,700), were significant. Next came complaints about "food and drink" (4,300), followed by "telephone and mobile phone services", "personal clothing, shoes and jewellery", "gas, water and electricity", and "banking and building society services" (3,000). Prominent

among types of goods and service where a large increase in complaints was seen between 1994 and 1999 were "telephone and mobile phone services", "computers and computer software", "meals and entertainment", and "delivery and postal services" (this is explained by an increase in purchases or a higher proportion of income being spent on these goods and by the fact that the survey allowed users to complain about postal services where they may not have been the customer).

Consumers had taken action in 80 per cent of cases, but seek assistance in only a few. Legal advice, Trading Standards Offices and Citizens Advice Bureaux each account for only about 2 per cent, which approximately agree with the real (average) figures. Complaints made to Trading Standards involve higher value items where redress has been difficult to obtain (e.g. used cars) and also more complaints about selling techniques and misleading information.

Telephone costs were incurred in 43 per cent of cases (out of 53 million cases where action was taken by customers) and averaged about £11.45 when incurred. Transport was involved in 17 per cent of cases at an average cost of £27.45, legal costs in 1.1 per cent of cases at an average of £246, and other experts in 1.7 per cent of cases at £111. Consumers incurred costs resolving a problem at their own expense in 4.1 per cent of cases (£480+ hiring replacement), with costs of more than £5,000 in some building contractor situations. Lost earnings occurred in 4.3 per cent of cases (£456 average where incurred), but the mode was less than £50 even when they occurred. The mode for use of personal time was less than 1 hour, and averaged 6.3 hours over all cases. The largest category of detriment was loss of value amounting to £3 billion in total (5 per cent of cases, £1000 average cost when incurred, but assessment restricted to transactions costing more than £200). This was followed by personal time (valued at £4 per hour), repairing, and lost earnings, each amounting to about £1 billion of detriment.

In 43 per cent of cases people were very or fairly dissatisfied with the outcome of complaints, (and 36 per cent were satisfied). People from ethnic minorities and with long-term illnesses were more dissatisfied, young people less so. When unsuccessful action was taken people were less satisfied (than when no action was taken) and people gave a much more positive response after the issue was resolved than while it was being resolved. Solving the problem at one's own expense increased consumer satisfaction (again possibly the premium on the issue being resolved). A satisfactory explanation seemed very important for increasing satisfaction. There was frequent criticism of suppliers being slow to respond and not taking responsibility, with the most damaging problem being failure to honour a guarantee or giving misleading claims about repairs.

The survey proposed some sentiments that consumers might use to explain their experiences. Use of stronger stress-related descriptions by consumers increased with eventual dissatisfaction, time taken to resolve the issue, and an unsatisfactory conclusion.

The finding that many costs are both infrequent and highly variable underlines inherent difficulties. In order to monitor changes in the level of detriment over time it would be necessary to produce better estimates, probably within 5 per cent of the true value, which could be achieved only by a substantial increase in the size of the survey. As sampling errors depend primarily on the square root of the sample size, achieving such accuracy would require an increase in sample size by a

factor of about 50 (100,000 respondents). Based on the costs of this survey, measuring consumer detriment with sufficient accuracy to monitor changes over time would require expenditure in the order of £3 million per annum.

The appendix presents a model that first shows monopoly deadweight welfare loss, then measures detriment as the difference (summed where positive) between the actual price paid and the "true demand" of consumers if the demand curve had not been raised by misperception.

Hausman, J., "Valuing the effect of regulation on new services in telecommunications", Brookings Papers on Economic Activity. Microeconomics", 1997

Synopsis: in this paper the author provides an estimate of the welfare effects of regulatory-induced delay in the introduction of a new service. The case studies that are tackled by the authors are the delays in introducing voice message services and cellular telephone in the US caused by the Federal Communication Commission (FCC).

Full summary: the methodological approach which is proposed by Hausman (1997) is based on the assumption that a situation where a good is not introduced because of regulatory intervention is analogous to a situation where the price of the good is set at a sufficiently high price such that demand falls to zero.

Hausman's proposed approach to measuring empirically the welfare loss which is caused by delaying the introduction of a product relies on an ex-post analysis, i.e. it is based on real world data after the good has been introduced into the market. Using data on prices, quantities and other demand shifting variables, the author estimates, with appropriate econometric techniques, a demand function for the good under analysis. With the relevant estimates at hand, Hausman (1997) suggests using the demand function to compute the price which would drive the quantity demanded to zero.

With this price, as well as the theoretical framework developed by Hausman (1981), it is possible to derive an estimate of the welfare change. Hausman (1981) has shown how it is possible to derive, for reasonably simple demand functions, the relevant welfare measure associated with a price change, e.g. the compensating variation (the amount of money a consumer requires in order to be compensated for giving up a reduction in prices (see the review of Hausman, 1981)).

Hausman (1997) computed the welfare loss from delaying innovation as about $1.27 billion for voice messaging and about $50 billion a year for cellular telephones. The author also reported some lower bounds for these estimates.

As suggested by a discussant of the paper in the same volume (Pakes, 1997), there are some potential problems with Hausman's approach. The first is that this methodology tends to neglect some of the benefits of the delay. For instance, Pakes (1997) notes that a firm that introduces a new product might have an incentive to increase unilaterally the prices of related (substitute) products: in this case a system of equations should be estimated, rather than a single equation, and consumer welfare losses for the second good should be estimated. Second, introducing a product too early may reduce future consumer surplus if the firm that introduces it gains a dominant position which allows it to charge higher prices than it would otherwise be able to do.

Pakes also raises some questions over the use of simple demand functions which, although they can do a reasonably good job in computing relevant elasticities around the mean of the data, can yield poor approximations of quantities, like consumer welfare arising from introducing a new good which require the demand function to be extrapolated outside the range of observed data.

More importantly, the methodology suggested by Hausman (1997) can be implemented only in an ex-post evaluation exercise, i.e. after the good has been introduced, which is not very helpful

for the regulator. Pakes (1997) argues that a different demand approach (namely, the logit demand approach, which defines preferences over characteristics of products, rather than directly over products as conventional consumer theory does) could be implementable even before the introduction of the new good.

European Commission, "Consumers in Europe: Facts and Figures", 2005 Edition

Synopsis: we reviewed this report to famaliarise ourselves with some of the data which are available. The report includes data on consumption patterns, including expenditure and prices, and on consumer attitudes and quality indicators in the European Union, as well as some details of European policy initiatives. Coverage is variable, with data often available only for the EU-15.

Full summary:

The report is separated into eight chapters.

Chapter 1 is entitled "consumers and consumption expenditure" and includes data on:

- Final consumption expenditure of households and non-profit institutions serving households (pp10-11);

- Consumer confidence index in the EU (p12). The index measures consumers' opinions on a range of economic decisions, such as whether they consider it a good time to purchase expensive goods, and represents the proportion of households with an optimistic view minus the share with a pessimistic view. There are data for all 25 Member States, ranging from 3 years of index data for Lithuania up to 20 years of index data for Belgium, Denmark, Germany, France, Ireland, Italy, Netherlands and the UK;

- Income levels and distribution (p18);

- Expenditure patterns between different consumption items (p24);

- Expenditure patterns according to household composition (pp27-31);

- Prices (pp32-41). This section looks at why prices vary between countries in the EU and at consumer price inflation. It includes price level indices and a comparison of prices for some branded products in 2003;

- Retail network, advertising and direct marketing (pp46-55). This section includes data on: direct selling, i.e. the marketing of goods and services directly to consumers on a person-to-person basis; advertising; and direct marketing;

- Consumer attitudes and satisfaction (pp56-64).   This section includes data on: user satisfaction with services of general interest (e.g. electricity supply, postal services, water supply); user complaints about services of general interest; products and services giving rise to problems; consumer attitudes regarding e-commerce; and consumer confidence concerning cross-border trade;

- Safety of services and products (pp65-72). This section includes data on: the opinions of people in the EU on consumer safety and protection; and problems encountered when shopping online.

Chapters 2-7 contain data on consumption in specific areas:

- Chapter 2 – food, beverages and tobacco;

- Chapter 3 – clothing and footwear; personal care and personal effects;

- Chapter 4 – housing;

- Chapter 5 – services of general interest and personal transport;

- Chapter 6 – culture, leisure and tourism;

- Chapter 7 – financial services.

Chapter 8 provides some key figures relating to consumers for the four candidate countries (Bulgaria, Croatia, Romania and Turkey).

Ellison, G., "Bounded rationality in industrial organization", January 2006

Synopsis: the paper reviews the literature which incorporate bounded rationality and behavioural economics into industrial organisation (IO) issues.

Full summary: early contributions dating back to the 1950's derive from Herbert Simon's "satisficing" approach as they tend to focus on firms aiming at securing a profit level considered standard or adequate. More interesting insights came during the 1970's and 1980's, the epoch of the game-theoretic revolution, where alternative approaches were based on consumers using rules-of-thumb. For instance, Smallwood and Conlisk (1979) assume that consumers stick to the same product until experiencing a "breakdown", which may be literal or simply a disappointing experience. In that case they switch to a new product, which may be chosen randomly or with a probability distribution related to current market shares. The spread of high quality products as opposed to permanence of an initial market share distribution is shown to depend on the way consumers select new choices. More recently, Ellison and Fudenberg (1993 and 1995) show how rule-of-thumb approach lead to insights on herding or diversity outcomes in terms of technology adoption and product quality, and on effects on prices.

Ellison includes in the bounded rationality IO some empirical economics contributions, where actual behaviour constitutes the starting point and then the appropriateness of assumptions on behaviour is evaluated. Studies by Chevalier and Ellison (1997) on how fund companies distort decisions in order to attract business, Fudenberg and Kreps (1998) on whether players reach game-theoretical equilibria, and Mobius' (2001) description of what may have driven the evolution of US telecommunications market in the early 20th century after AT&T patent expiry are interesting examples.

Most recent papers mentioned in this review deal with the way rational firms distort behaviour due to the presence of boundedly rational consumers. The works of Della Vigna and Malmendier (2004, 2005) on below-cost usage pricing of goods entailing delayed benefits (e.g. health club attendance) and Heidues and Koszegi (2004) on constant pricing and countercyclical mark-ups in presence of loss averse consumers are related by Ellison to the earlier quality selection framework of Spence (1975). The "optimal quality" results derived by Spence, in fact, are related to the willingness to pay by boundedly rational consumers. The general principle, consistent with those results, is that monopolists will distort the characteristics of their goods (including prices) along whatever dimension increases such irrationally derived willingness-to-pay.

Models of sales proposed by Piccione and Rubinstein (2003) centre on the distinction between sophisticated and naive consumers, and on attempts by firms to price discriminate in favour of the former, e.g. by alternating between regular and sales prices on the basis of different cognitive abilities to recall past price history. Earlier on, Kahneman, Knetsch and Thaler (1986) proposed instead a fairness-based explanation on holding sales and then getting back to "regular" prices, as a more "acceptable" frame with respect to raising and lowering regular prices according to demand conditions, which consumers may regard as unfair.

Price dispersion models such as in Baye and Morgan (2004) are related to the lack of robustness to departures from rationality, this time on the firms' side, where they pick actions within a small

range with respect to maximum profits. In a Bertrand competition setting, this behaviour gives rise to mixed strategy equilibria characterised by much higher profits than under standard profit maximising behaviour.

Obfuscation of product characteristics is a commonly observable pattern which goes against a basic economics result, whereas higher quality is always signalled and, this being expected by consumers, perfect disclosure happens in equilibrium. Gabaix and Laibson (2004) explains this in terms of random evaluation error by consumers, which allows firms to charge higher mark-ups, in a similar fashion as in search cost models. Spiegler (2005) offers another rule-of-thumb model, by which consumers evaluate products only on some selected dimensions, and firms randomise across dimensions making some of them very good with respect to others. This randomisation is seen by the author as intentional obfuscation.

In several models, add-on pricing leads to higher profits on the basis of the cost to consumers of observing add-on prices. In Gabaix and Laibson (2005) and in Ellison (2005) the focus is on bounded rationality. In the latter there are limited incentives for firms to engage in cutting prices, thereby attracting price sensitive consumers who do not buy add-ons.

The authors conclude with remarks on the benefits of using bounded rationality in IO analysis, in terms of greater realism and the tractability of models. They also conclude that there is clear scope for further development on the basis of findings from psychology-and-economics motivated work.

Loewenstein, G. and Prelec, D., "Anomalies in intertemporal choice: evidence and an interpretation", *The Quarterly Journal of Economics*, Vol. 107, No. 2, May 1992, pp. 573-597

Synopsis: the paper shows a number of anomalies, usually tested by several experiments, which undermine the consistency of the discounted utility model, traditionally used in economics to represent intertemporal choices. They then proceed to define a model that is argued to fit better with intertemporal choice behaviour and discuss its implications in several economic situations, including savings behaviour and consumers' decisions regarding durable goods.

Full summary: one anomaly is defined as the common difference effect, which give rise to a dynamically inconsistent behaviour by which preferences over two delayed outcomes switch when both delays are incremented by a constant given amount; for instance, a person may prefer an apple today to two apples tomorrow, but two apples in 51 days to one in 50 days. The absolute magnitude effect shows that large money amounts entail less proportional discounting than small ones; subjects in experiments are found to be indifferent between $15 immediately and $60 in a year, and between $3000 immediately and as much as $4000 in a year. The gain-loss asymmetry consists in having discount rates much bigger in the realm of gains (e.g. subjects show indifference between getting $10 now and $21 in a year) than with losses (indifference between losing $10 now and $15 in a year), up to the point that some agents prefer an immediate loss over a delayed loss of equal value. The last example presented consists in the delay-speedup asymmetry, where the amount required to compensate for delaying receiving a reward by a given time interval is two to four times greater than the amount subjects are willing to sacrifice to speed consumption up by the same time interval.

The model the authors propose, which is similar in concept to Kahneman and Tversky's prospect theory, assumes that intertemporal choice is defined with respect to deviations from an anticipated status quo consumption plan, where the objects of choices are sequences of dated adjustment to consumptions, referred to as *temporal prospects*. The model also incorporates the fact that sensitivity to time delay is not well expressed by compound discounting, as people are not as sensitive to time changes for consumption which is already substantially delayed as they are when the time frame is close. That is, the common difference effects and other anomalies prompt the incorporation of nonconstant discounting in the intertemporal choice model.

Technically, the model proposed sees utility defined over a summation of products of value function and discount rates evaluated at each point in time, as opposed to the standard formulation with a constant discount rate with the number of periods as its exponent. The discount rate structure they propose assumes that the delay that compensates for the larger outcome (to obtain indifference) is a linear function of the time to the smaller, earlier outcome. Furthermore, the value function is made of two independent segments, one for losses (convex, with interesting implications on aversion to selling losing stock, see below) and the other for gains (concave), that connect at the reference point (the "status quo" consumption level). Besides the smaller discount in the loss domain, the robust loss aversion result, by which the disutility from a loss is bigger than the benefit of an equivalent gain, is also to be taken into account.

The implications of the approach proposed by the authors span over several economic phenomena. In terms of consumer behaviour, it is observed that people show very high discount rates, in comparisons to the ones exhibited in savings behaviour, when choosing durable goods characterised by an upfront price and following expenses, an example being electricity charges for using air conditioners, which are typically lower for more efficient high-price models. Apparently, the magnitude effect mentioned above plays a role, as the sequence of electricity charges, each one of them being small when taken into isolation, is neglected when compared to the differences in the up-front charge (the purchase price).

Other predictions include the tendency to decrease the proportion of savings during economic downturns, as consumers are likely to see decreases in disposable income as losses, which are weighted more than gains in the future; conversely, saving out of an increased income or a bonus may be seen as a compensating variation, which results in lower discounting and greater savings. Evidence, in fact, shows that the marginal propensity to save from bonuses is higher than that from normal income.

Finally, another one of the behavioural features mentioned by the authors as related to their approach consists in the "disposition effect", by which people tend to avoid selling stocks and real estate when its value is lower than the price at which they purchased, which results in depressed trading volume during market downturns. This is consistent with the value function being convex in the loss domain. On the other side, people are eager to sell assets that have gained value.

O'Donoughe, T., Rabin, M., "Doing it now or later", *The American Economic Review*, Vol. 89, No.1, March 1999, pp. 103-124

Synopsis: the authors provide a framework for the analysis of self-controls problems, whether relating to procrastination in the face of immediate costs or preproperation (doing something too soon) in the face of immediate benefits.

People affected by self-control problems are characterised as having present-biased preferences, characterised by time-inconsistency. In time consistent utility function, the marginal rate of substitution between consumption in any two periods is invariant with respect to the moment in which the trade-off is being assessed. Present-biased preferences imply, instead, that one may prefer (using the authors' example) doing seven hours of an unpleasant activity on April 1 versus eight hours on April 15, if they take the choice in February, but put off work until April 15 if they are presented the option on April 1.

The decisions affected by self-control problems can be divided essentially in two types, according to what they involve: immediate costs and immediate rewards. This distinction acquires importance when the effects of "sophistication" are analysed. Sophisticated agents are those who recognised their self-control problem when they decide upon today's decisions, while naïve ones incorrectly assume that their future behaviour will depend on preferences with regard to the stream of consumption as they are defined today – in other words, they believe they have time consistent preferences, characterised by high weight on today's well-being. The behaviour of the naïve, as a consequence, is characterised by the present bias effect: he procrastinates actions involving immediate costs and preproperates (does too soon) the ones entailing immediate rewards.

Sophistication may be expected to ameliorate self-control problems and the consequent present-bias effect. In the context of a one-time activity entailing immediate effects (rewards or costs) the authors show that this is not the general case. In fact, the sophisticated will tend to perform the activity sooner, which means that while procrastination problems are mitigated, preproperation is worsened. The main intuition is that sophisticated people realise that, for instance, delaying unpleasant work today will not result in doing it tomorrow, as tomorrow's self will also be characterised by present-bias preferences, and so will all future selves. Therefore the trade-off to be considered is doing the activity today or delaying it significantly. In other words, the sophisticated realises that the loss of waiting is bigger than what he would think, if he incorrectly assumed that the costly activity would be done tomorrow, if skipped today. When the activity entails immediate reward, acknowledging self-control problems implies that he expects that the pleasant activity, if delayed today, would be enacted tomorrow and not be delayed until what an optimal choice over time consistent preferences would entail. As a consequence, sophistication will lead to reap immediate rewards today, exacerbating the effects of self-control problems.

The framework provided by the authors can provide insights in the realm of consumer behaviour, and in particular with regards to savings and addiction. For the naïve, present bias unambiguously leads them to undersave and to overindulge in addictive behaviour. The effects of sophistication are somewhat more complex, especially when the analysis is extended beyond the one-time activity used in deriving the results described above. While in general costly activities

may be carried out earlier even than with respect to people with time consistent preferences, rewarding activity could be carried out even before the naïve would, although this result is not universal. In general, a word of caution is expressed by the author in terms of assuming that sophistication always reduces the effects of self-control problems.

Two main bases for incorporating present bias into economic analyses of behaviour are presented in the conclusions. On one hand, they simply underline that presence bias allows more accurate predictions of behaviour and more plausible explanations than solely relying on time-consistent preferences, which may lead to "absurd" discount factors to allow compatibility with actual choices. On the other, welfare implications can be quite important. For instance, consumption patterns of high fat foods can be interpreted either as related to self-control problems, or as consequence of optimizing choices (i.e. the pleasure of eating them overweighs the costs of becoming fat). In the latter case the "right" amount is consumed, unlike in the former. Furthermore, a careful analysis of self-control issues can also affect predictions on the effects on consumption of tax policy on the kind of goods related to those issues, such as cigarettes.

Della Vigna, S., and Malmendier, U., "Contract Design and Self-Control: Theory and Evidence", *The Quarterly Journal of Economics,* 119, 353-402, 2003

Synopsis: the article provides a theoretical framework which illustrates how the presence of time inconsistent consumers affects the behaviour of profit maximising firms, and the effects of this behaviour on pricing and welfare. Furthermore, it also provides empirical evidence of the consistency of those results with actual pricing schemes.

Full summary: the authors focus on two types of goods, defined according to the timing of costs and benefits. One type, referred to as investment goods, is characterised by immediate costs and delayed benefits, and is exemplified by health club attendance and (to a lesser extent) by vacation time-sharing. The other type, referred to as leisure goods, entails immediate benefits and delayed costs. Consumption goods acquired via credit card financing (allowing more consumption today and less tomorrow), gambling and (less convincingly) cellular phone usage are included in this category.

Time inconsistent consumers are characterised by hyperbolic discounting, whereby present consumption has a higher weight than it would have if the discount rate were held constant. In other words, while the relative weight of consumption in period 4 with respect to period 5 is the same as the relative weight of consumption in period 5 with respect to period 6, the weight of today's ("period 0") consumption is "inflated" by hyperbolic discounting; these preferences are time inconsistent in the sense that, when period 4 is reached, the relative weight of consumption in that period with respect to period 5 is actually bigger than it was when evaluated at period 0.

Consumers characterised by time consistency are divided in two groups: the sophisticated are aware of their own characteristics, i.e. they know that in any future period they will place a value on the consumption in that period which exceeds the value that would apply with time consistent preferences; the partially naïve underestimate this effect, i.e. they are not fully aware of their self-control problem.

The pricing structure as modelled in the paper consists in a two-part tariff, composed of a lump-sum fee and a price for usage. It turns out that for investment goods, the profit maximising pricing structure is characterised by below marginal pricing per usage and a higher lump sum fee with respect to what would be the case if consumers had time consistent preferences. Naïve consumers will be exploited, in the sense that the firms profit from their expectation of future usage of their goods (i.e. days in health clubs). Sophisticated consumers, on the other hand, genuinely prefer this pricing structure as it implies a kind of commitment to usage in the future; that is, this pricing structure leads them to a welfare enhancing consumption pattern of investment goods with respect to what would occur if usage prices were set at marginal costs (the profit maximising choice in the absence of consumers' time inconsistency).

The analysis on leisure goods leads to the opposite conclusions: in that case, introductory prices are lower than what would be set if consumers were time consistent, and price per usage is higher. In this case, sophisticated consumers benefit from the commitment aspect of high prices as they mitigate the overconsumption problem, while for naïve agents pricing above marginal costs enables firms to exploit the underestimation of the probability of purchase.

The presence of sophisticated or naïve time-inconsistent consumers has important effects on welfare analysis. If consumers are sophisticated, the market interaction implies positive welfare effects, both under monopoly and under competition, as firms offer a commitment device in terms of pricing structure which enables consumers to achieve the efficient consumption level. If agents are instead naïve, then contracts designed by firms exploit the consumers' misperceptions about their own future purchasing behaviour. In this case it is shown that market outcomes are inefficient and, under monopoly only, entail a redistribution of surplus from consumers to the firm.

Empirical evidence on contracts supports findings from the theoretical analysis. In particular, it is found that health clubs charge flat fees but no cost per visit, despite marginal costs estimated by authors to be between $3 and $6, in most frequently chosen contracts, despite the availability of *payment per visit* options. It turns out that consumers who pick monthly or annual contracts, with no fee per visit, would on average save money if they chose the *payment per visit*, which is consistent with the presence of both naïve consumers, who mistakenly overestimate future attendance when signing contracts, and sophisticated ones, who seek to commit to frequent attendance. On the other side, credit card companies offer low initial fees and sometimes favourable introductory interest rates, and then quite high interest rates, well above marginal costs from usage. Back-loaded fees, automatic renewals and endogenous switching costs are other contractual features which are explained in terms of time inconsistency by consumers.

Jehiel, P., and Lilico, A., "Smoking today and stopping tomorrow: a limited foresight perspective", Sept. 2002

Synopsis: the paper has the objective of providing an explanation for the observed tendency to engage in smoking habits when young, to regret and try to quit when older. A limited foresight perspective is proposed, under which agents fail to encompass the overall time span over which costs and benefits of today's decisions are reaped.

Full summary: in the authors' set-up a standard discounted utility function captures people's preferences. As a consequence, unlike other explanations proposed by economists to explain smoking habits and other detrimental behaviour, the basic model of preferences is characterised by time consistency. People do not have a wrong perception of the preferences of "future selves", as in hyperbolic discounting models, but rather are affected by bounded ability to deal with the time horizon ahead.

The main driver of the result consists in the fact that the highest payoff in any given period is achieved by smoking conditional on having just started in the previous period. On the other hand, not smoking after not having started is not as pleasant, but is preferable to smoking as a routine (i.e. after having been a smoker in two previous periods).

As a consequence, agents characterised by perfect foresight would choose the "don't smoke plan", i.e. they would not start smoking at all. The authors argue that young people's limited foresight is what drives them towards starting smoking, as their perceived time horizon is long enough to see the pleasure of smoking after having just started, but not the whole stream of lower payoffs of the regular smoker vis-à-vis the non-smoker who has not started; the commonly experienced low payoff of not smoking after having just quit reinforces the permanence of smoking behaviour. On the other end, when older, people learn to have a less limited foresight and therefore engage in efforts to quit smoking. That is, a learning element (which may be seen as acquiring wisdom after growing older) is present in the model which explains the change in desire about smoking habits.

The authors point out that this kind of explanation should shed some light on the general issue of government intervention, especially as it could be argued that the young do not appear to lack *information* on the effects of smoking, but rather the *wisdom* to follow the most appropriate non-smoking plan.

Heidhues, P., and Köszeg, B., "The Impact of Consumer Loss Aversion on Pricing", CIC Working Papers SP II 2004-17, Wissenschaftszentrum Berlin (WZB), Research Unit: Competitiveness and Industrial Change (CIC), 2004

Synopsis: the article provides insights on how loss aversion, a psychological factor documented in the behavioural economics literature, can be shown to be a leading factor behind three stylised facts regarding prices for consumer goods: sticky prices, countercyclical mark-ups, and temporary sales and promotions.

Full summary: the starting point of the analysis stems from the assertion, derived from experimental evidence, that preferences are reference-dependent, in the sense that people compare economic outcomes to reference points and not merely in terms of their absolute values. As a consequence, the theoretical model the authors propose see consumers' well-being depending on the differences relative to reference levels in money and goods, besides their levels. The effect of the difference between levels and reference points is affected by the loss aversion phenomenon, by which the disutility of negative differences is greater, in absolute value, than the benefit from positive ones. This phenomenon is well documented by a wide variety of experiments in which people reject lotteries with positive expected value (expected gains exceeding expected losses) and also exhibit other kinds of behaviour consistent with this loss aversion as a driving factor behind their choices.

With consumer well-being and therefore behaviour on the demand side affected by reference points, a profit maximising monopolist with uncertain costs of production will modify his behaviour accordingly.

A first result shows that, under some conditions regarding the distribution of uncertain production costs, namely on the density of this distribution (i.e. costs varying "not too much") and relatively high likelihood of purchase by consumers, then prices are sticky, i.e. they do not respond to variations in marginal costs as much as they would if the demand function was not affected by loss aversion. The intuition is relatively simple: exposing consumers to unfavourable price variations results in a sensation of loss – if the purchase happened - compared with the expected price (and therefore the expected post-purchase outcome in terms of money), which reduces the demand for the good. (Recall that loss aversion implies asymmetry, in the sense that the positive feeling from lower prices is not as strong as the negative one when prices are higher.)

The desire of the monopolist to mitigate the comparison effect also leads to countercyclical mark-ups, whereas profit margins are lower during boom phases than during recession. This result hinges upon the observation that marginal costs are pro-cyclical; the desire to reduce price variability prevents firms from shifting costs variations in prices. As a consequence, when marginal costs are higher (typically during booms) mark-ups are lower. Most notably, when outturn costs are lower, firms choose not to charge lower prices as these would form new, unfavourable bases for comparison for the future and discourage moving prices back to higher levels.

The third relationship between stylised facts and the loss aversion phenomenon refers to sales and promotion techniques. These are interpreted as attempts to manipulate consumers' expectation about buying the good. The relevance of this expectation is based on the fact that if

the consumer expects to buy a good, not buying is perceived as a gain in terms of money and a loss in terms of quantity available for consumption and, again, the pain from the loss is in general greater than the pleasure from the gain; vice versa, when the consumer expects not to buy, then, ceteris paribus, the incentive to engage in purchasing is lower. Offering random sales has the goal of increasing the probability of buying certain goods that is perceived by consumers, whereas a low price constitutes a "state of the world" where purchases happen. This increased probability affects the general disposition to buy and the willingness to pay. In other words, sales and promotions are aimed not only at boosting immediate demand, but also the willingness to buy at higher prices; they can be seen as "investment in future demand". This result is interpreted by the author as a non-competitive market reason, valid also in the monopolistic setting, for pricing below marginal costs, which has traditionally been interpreted as predatory pricing.

Gabaix, G., and Laibson, D. "Shrouded attributes, consumer myopia, and information suppression in competitive markets", *The Quarterly Journal of Economics***, May 2006**

Synopsis: the article is focused mainly on the lack of transparency of the prices of the so-called "add-on" products, i.e. on those products which constitute complements to the corresponding "base products". Examples are cartridges for printers, phone calls in hotels, and ATM machines for bank accounts.

Full summary: the authors observe that firms often engage in "shrouding", i.e. decide to hide the characteristics and the prices of add-on products (or at least to make it hardly accessible), even when revealing information would be nearly costless. For instance, patented ink cartridges of a leading printer manufacturer, which end up costing as much as ten times the cost of the printer itself over the life of the product, are very hard to find on the company's website.

In the presence of fully rational consumers, the shrouding strategy would make little sense: each consumer would infer that hidden prices are likely to be high prices, which in turn would lead to incentives for information revelation by firms.

The presence of "myopic" consumers changes this picture. Those consumers analyse the game tree incompletely, which includes the decision by firms to make information on add-on prices shrouded or unshrouded. Some economists suggested that shrouding cannot "survive" as a successful strategy, as competitive firms would "educate" myopic consumers in order to win business, by making them abandon non-transparent suppliers.

The authors develop a model where, instead, shrouded attributes exist in equilibrium, in the presence of myopic consumers. The main intuition is that in many cases firms would not derive profits from engaging in "debiasing" consumers: the effect of such activity would be to make consumers more sophisticated in evaluating packages of base goods and add-ons, but not to switch to transparent firms. In fact, the typical outcome would have them engaging in costly activity to find substitutes for add-ons, but still buying the base goods from those suppliers who shroud add-on attributes. Indeed, in those cases two forms of exploitation co-exist in equilibrium. Firms exploit myopic consumers by charging a high mark-up on add-ons, on one hand, and non-myopic (or "sophisticated") consumers take advantage of the behaviour of these exploitative firms, who tend to set low base prices (the only ones observed by myopic consumers), by buying only the base products and substituting add-on prices. Neither firms nor sophisticated consumers have an incentive to deviate from this behaviour, in the presence of myopic consumers who, of course, would have an incentive to deviate from their choices but do not realise it.

It is noteworthy that important inefficiencies may arise in equilibrium, due to information learning effort by consumers (to be "sophisticated") and substitution of add-on prices which, in presence of complementarities, may also be costly with respect to buying add-on products if they were offered in competitive conditions.

The authors discuss the issue of identifying and regulating shrouding.

The former goal can be pursued by consumer surveys, analysing the degree of knowledge of add-on costs, by testing possible differences in consumer responsiveness to up-front costs vis-à-

vis delayed costs, by assessing whether firms gratuitously increase the search costs for add-on prices, by estimating mark-ups of base goods and add-ons and looking for learning effects implied by shrouding equilibria, in particular in terms of evolution of demand for add-on products.

The quest for regulatory remedies, aimed at avoiding the inefficiencies brought about by shrouding, turns out not to be an easy task, as, in the words of the authors, it is "difficult to outlaw ignorance or misleading (but accurate) information", and one should always make sure that costs of regulation do not outweigh benefits. That being said, compelling disclosure (e.g. reporting the cost of ink per page of printing in a prominent place on a printer), warning consumers, making markets for add-on products more open to competition and imposing markup caps on shrouded attributes are regulatory responses which are in some cases feasible and have been implemented with mixed success in different contexts.

Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoughe, T., and Rabin, M., "Regulation for conservatives: behavioral economics and the case for 'Asymmetric Paternalism'", University of Pennsylvania Law Review, June 2003

Synopsis: this article puts forward the case for policies which are "asymmetrically" paternalistic, meaning that they benefit non-rational individuals while imposing little cost on individuals who are fully rational.

Full summary: the recent development of behavioral economics has spurred a lively debate on the pros and the cons of so-called paternalistic regulatory policies. Such policies are based on the idea that people make errors when taking decisions, and therefore intervention may be justified to prevent them from suffering negative consequences. Furthermore, in some cases regulation may be justified to prevent fully rational people making certain choices under special circumstances; for instance, usury laws are designed to prevent people inflicting substantial long-term damage on themselves as a result of financial pressure. While the authors mention the latter possibility, their main focus is on the issue of errors related to non-perfect rationality.

The authors propose an approach for the assessment of such policy options called "asymmetric paternalism", which is based on comparing the benefits for those who may benefit from some degree of limitation to their choices and the possible costs for those who are rational enough to take appropriate decisions without any constraints. A paternalistic regulatory option is then suitable if the benefit for the former is greater than the cost for the latter and if this difference exceeds the cost of implementing the policy option and any negative effects on profits for firms.

The authors' position in the debate is meant to constitute a stimulus for both conservative scholars and eager advocates for paternalistic policies. The approach of the former may be described as based on the idea that people have well defined preferences and take choices aimed at maximising their well-being, possibly making some evaluations on probability in uncertain situations and appropriately revising those probabilities in the presence of new information. Hence, conservative scholars see no place for paternalistic policies. However, a rigorous evaluation of costs and benefits could find that the rationale for such policies does exist in some cases, most notably when they come at low or zero cost for fully rational people and entail great benefits for those prone to errors.

An insightful argument mentioned by the authors consists in tracing a parallel with the well-known concept of an externality. When negative externalities exist, a demand curve based on social costs and benefits will be further to the left than a demand curve based solely on private benefits, implying a lower quantity is more "socially efficient". Similarly, a regulation leading to choices truly in the interest of the boundedly rational individuals can be seen as equivalent to shifting consumers' demand schedules to take into account "internalities". This could lead to an outcome which is socially desirable, even when taking into account the interest of the suppliers. That is, even in those circumstances where the quantity demanded decreases (which need not be the case for all paternalistic regulatory options), social welfare is likely to be greater.

The rest of the paper provides interesting examples of existing and potential regulatory responses to errors in decision making. The importance of default rules are discussed in light of the "status quo bias". Evidence shows that, for instance, participation in retirement plans varies substantially

depending on whether or not it is set as a default option by automatic enrollment, despite the fact that people can abandon the default option at no substantial cost. Framing effects are also important, and this may explain regulations relating to home mortgages under which financial institutions must provide borrowers with terms such as annual percentage rates and monthly payments and state clearly the possibility of losing the home if payment obligations are not met. "Cooling off periods" for decisions such as purchasing from door-to-door salesmen or for marriage or divorce, or rules allowing buyers the right to rescind purchases within a given time period, are established in response to possible "hot state" suboptimal decisions. Limiting choice by imposing deadlines could benefit people with a tendency to procrastinate.

All these instances tend to be characterised by potential benefits for those who are prone to making errors, while at the same time the costs for fully rational people do not seem to be overwhelming. For instance, subdividing a task by means of imposing a deadline would probably reflect a path that rational people would take anyway; the cost of waiting during the cooling off period for marriage decisions is probably low given the long-term nature of the commitment; and the option of rescinding a contract may be of no benefit for rational people, but comes at no cost either.

Sunstein, C., and Thaler, R., "Libertarian paternalism is not an oxymoron", *The University of Chicago Law Review* No.4, 2003

Synopsis: the authors posit the possibility of designing paternalistic policies while respecting fundamental freedom of choice. The positive effect of paternalism stems from the emphasis that preferences are not well nor clearly defined in many economically relevant domains. Most notably, choices are regularly affected by framing effects, starting points, default rules and other factors which would not matter if people's behaviour were consistent with the paradigm of perfect rationality as assumed in standard economics. Advances in behavioural economics provide some insights into the effects of bounds in cognitive abilities and will-power, which, in the absence of paternalistic policies, may result in welfare loss suffered due to poor decision-making. The paternalism advocated by the authors is geared towards leading to welfare maximising options among the choices that agents can take; at the same time, such paternalism is libertarian as agents should in principle be given the possibility of "opting out" of those choices.

Full summary: in comparison with the "asymmetric paternalism" approach proposed by Camerer, Issacharoff, Loewenstein, O'Donoughe and Rabin, libertarian paternalism puts more emphasis on the ultimate freedom of choice rather than on the asymmetry of effects on fully and boundedly rational agents. The main target of the authors' critics is instead the "dogmatic anti-paternalism" of other scholars proposing an economic analysis of law. They suggest that this dogmatic anti-paternalism rests on a false assumption and two misconceptions. The false assumption is that people make choices which follow their best interest perfectly or at least more than choices taken by third parties would. Lack of experience and common misconceptions undermine the validity of this assumption. The two misconceptions are that there are viable alternatives to paternalism, which instead is intrinsic to the very fact that organisations, including governments, have to take choices which end up affecting welfare (e.g. on framing or on setting default options), and that paternalism always involves coercion, whereas many paternalistic policies can and do leave room for individuals to choose other options.

In support of their claims, the authors point out evidence, from real life and from experiments, of the bounds on rationality and will-power commonly shared by agents, which lead to predictable patterns of sub-optimal choices. Lack of self control, for instance, may help explain the widespread presence of obese people in US society and elsewhere, despite knowledge of serious risks to health and general well-being. Also, vivid memories (e.g. from an earthquake) greatly affect subjective probabilistic perceptions of risk and therefore the demand for insurance.

Status quo bias stands among the leading rationales for some degree of paternalism to increase welfare. For instance, default rules on employee savings plans (e.g. the 401(k) in the US) have great effects, as enrolment by default, while allowing people to opt out, entails jumps in initial enrolment from 49 to 86 per cent. "Coerced choosing", where no default option is given, may be seen as an alternative to setting welfare-enhancing defaults, but effects are not as big and, further, costs associated with decision-making efforts are imposed on agents who may prefer not to engage in such decisions.

The example of enrolment by default is illuminating in terms of the cost-benefit approach which should inform the approach to policy design. Being enrolled typically entails higher available

income over a person's lifetime (especially when there is an employer match of contributions), so that a default rule geared towards increasing enrolment rates benefits most people who do not opt out. Some other people, however, would be made worse off by enrolment, due to severe liquidity constraints. However, the libertarian element should also enter the analysis: those people's perception of the liquidity constraint make them relatively unaffected by the default rule, as they choose to opt out.

Another illustration of paternalistic policies is closely related to consumer protection, and refers to the mandatory cooling off period for certain decisions, which make purchasing decisions valid only after such a period. This policy is applied, for instance, in the US for door-to-door sales. The authors point out that those mandatory cooling-off periods make sense when two conditions are met: that people make those types of decisions infrequently and therefore lack a great deal of experience, and that emotions are likely to be "running high". These two conditions, which refer to bounded rationality and bounded self-control, respectively, make it likely that choices could be different when taken on the basis of longer and "sober" reasoning. In this case, benefits do occur for people who decide to change their choices upon better reflection, and virtually no costs are imposed on those who do not.

The libertarian paternalism approach seeks to maximise welfare, but at the same time the authors recognise cases when welfare effects may be hard for policy-makers to assess. Alternatives to welfare assessment may consist in choosing an approach (e.g. default setting or framing) which would be chosen by the majority, or promoting explicit choice (e.g. enforcing coercive choosing, as mentioned above); modifying the range of options available to citizens should also undergo an empirical cost-benefit analysis.

Glaeser, E., "Paternalism and psychology", *The University of Chicago Law Review,* **Vol. 73, 2006**

Synopsis: the author provides arguments in favour of limiting goverment paternalistic policies, including those which are regarded as part of a "soft" or "libertarian" paternalistic approach.

Full summary: the first part of his analysis focuses on the "demand and supply" aspect of psychological errors, which entail an endogenous aspect of such decision flaws. On the supply side, there is widespread experimental evidence of the ways in which opinions can be influenced by peers and decisions by framing effects, self-serving biases and other factors which can create the conditions for manipulation. Outside the lab, expenses on advertising of non-informative character stand out among the proofs that suppliers attempt to manipulate consumers' beliefs. On the demand side, Glaeser highlights the possibility of "self-correction" of errors: individuals do invest in learning to engage in better decision making, especially when they have clear incentives to do so. Overall, rewards and experience are shown, in experiments and in real life examples, to improve choices in terms of achieving desired objectives.

The latter aspect is related to the relevance of a simple model that the author designs, to show that consumers face stronger incentive than governments to "get things right" and reduce the effects of cognitive errors. This does not contradict the beneficial aspect of information gathering and spreading of information, but this is referred to as well-known public good aspect of information, which calls for correction of a "market failure", rather than for paternalistic policies. On the supply side, anti-paternalism is reinforced by the fact that it is clearly less expensive, from the firms' perspective, to manipulate decisions taken by a few bureaucrats than by the vast multitude of consumers. The presence of divided governments can mitigate this result, but not cancel it. Finally, a third model focuses on consumers' stronger incentives to take the best decision regarding consumption *per se* than when electing leaders in charge of taking decisions on their behalf. Overall, these models are aimed at showing that the existence of cognitive limitations exacerbates the tendency of mistaken decisions when taken by the state instead of private individuals. The success of campaigns against smoking, which in the US was substantially reduced, should be put into the context of the many paternalistic crusades – prohibitionism against alcohol, rhetoric about drugs, homosexuality, religion, loyalty towards government - which Glaeser finds to have had many undesirable effects.

His final part is devoted specifically to attacking the recently fashionable soft paternalism approach. The list of arguments referred to soft paternalism include:

- It acts as an "emotional tax" with no revenues, as it created utility losses for those who still engage in the discouraged actitivy (his examples include smoking and unsafe sex).

- It can cause bad decisions as much as hard paternalism, as educational programs which affect behaviour can be mis-calibrated.

- It is more difficult to monitor than hard paternalism, whose instruments are more visible, while soft paternalism is *per se* creative in the language it uses and overall more subtle.

- As it is more effective at building public support than hard paternalism, it can easily lead to abuse by authorities.

- It can build dislike and hatred towards subgroups of the population (e.g. smokers or those who fail to comply with recycling requirements).

- It leads to hard paternalism, building support for it as the number of people who do not engage and hold contempt for the discouraged activity increases.

- It can act as a complement to other forms of government persuasion, as public campaigning can be manipulated by incumbent governments.

Glaeser concludes that paternalistic activities should be restricted to areas where there is strong evidence of self-harm (e.g. dangerous drugs and suicide), and that a conservative approach in favour of existing policies should in general be preferred, on the grounds of benefits from experience in reducing cognitive errors. Furthermore, intervention should be limited because of the danger that it may be controlled by those responsible for supplying bias. In general, the essay points out that errors and biases should lead us to be more wary and less enthusiastic about paternalistic policies.

"Development of indicators on consumer satisfaction and pilot survey", INRA & Deloitte, Report prepared for DG SANCO, 1 February 2005

Synopsis: the report was commissioned by DG SANCO. The assignment had two objectives: to develop a methodology for the construction of consumer satisfaction indicators in the European Union; and to develop and conduct a pilot survey based on the proposed methodology. The purpose of the survey was to test the methodology and its underlying modelling and to propose a preliminary set of indicators. The Commission was interested in the construction of indicators that covered a relatively small number of sectors in depth, rather than in national consumer satisfaction indexes relating to the economy as a whole. Sectors to be covered included postal services, mobile telephone, fixed telephone, air transport, retail banking and insurance. The indicators were intended to allow meaningful comparisons of how consumers felt (a) across sectors in one Member State; (b) in one sector across Member States; and (c) over time.

Full summary: in the first phases of the assignment focus groups were used to get a clear picture of the most relevant factors for consumer satisfaction/dissatisfaction. Eleven focus groups, representative of the population by sex, age and socio-cultural background, met in different cities across Europe. Based on the results of the focus groups and desk research, a provisional model for measuring consumer satisfaction was developed. The model was provisional because it was to be validated and refined following the pilot survey. The model incorporated a long list of factors that were related to consumer satisfaction such as reliability, availability of staff, price transparency, etc. These factors or "manifest variables" were grouped into higher level constructs referred to as "latent variables" reflecting relatively complex dimensions of consumer satisfaction which could not be measured directly, e.g. quality, price, image etc. Cause and effect relationships were assumed to exist between each latent variable and its manifest variables, e.g. "price" affects "image".

During the model design an intermediate level labelled "drivers" was created between manifest and latent variables to categorise the manifest variables into sub groups. However, the model construct and its related methodology were based only on the manifest and latent variables.

The provisional model formed the basis for the questionnaire survey. For each manifest variable in the model an appropriate survey question was constructed. These questions were to be rated on a uniform 10-point scale. Additional questions were added in order to screen respondents, identify service suppliers and capture the respondents' profiles. The sample target for the pilot was 3,600 adults in eight countries. The pilot survey took place in the period August-September 2004.

Using the results of the pilot study a detailed statistical analysis was conducted. The main statistical analyses conducted included: consistency tests on the initial model (Cronbach's alpha method); validation of the indirect measurement of expectations; and data modelling (structural equation modelling – SEM). The questionnaire was found to produce significant and valuable results. INRA & Deloitte therefore recommended maintaining the structure of the survey, but proposed a few minor changes. They also suggested that the survey might need to be shortened for budget reasons.

Singh, "Industry Characteristics and Consumer Dissatisfaction" Journal of Consumer Affairs, 1991

Synopsis: markets that are considered more competitive (using a sample of just three industries) are found to have more complaints, but less exit (switching). Both complaints and exit may be poor estimators of whether consumers are satisfied with the service they receive in an industry. This may be established only by asking if problems have been resolved. There is some evidence that better educated people will be more discerning with regard to whether specific complaints have been dealt with. Switching is thought to be more influenced by personal characteristics with result that there is the higher switching in less competitive industries being more pronounced in young women.

Full summary: services have been found to cause higher consumer dissatisfaction than manufacturing industries. Reparable lapses in consumer satisfaction do not require regulatory responses and usually occur in competitive markets where consumers can exit and firms must change or perish. Thus the problems that consumers face do not continue. In monopoly industries consumers tend to react by using voice as exit is not possible (or is costly), but this can also lead to market corrections. Consumers can react passively and accept the problem (i.e. stay loyal), or they can use voice and complain (either to the company or a third party e.g. regulator, or just by engaging in negative word of mouth (WoM)), or they can exit and change to a different company.

The article identifies six characteristics that it suggests can make an industry more of a "loose monopoly". These are: 1) few alternatives (or at least those which are available are not viewed as better than the current supplier even if dissatisfaction is present). 2) Consumers have limited knowledge of alternatives. 3) Consumers cannot detect poor service. 4) It is difficult to detect quality. 5) Complaints have little impact. 6) Psychological factors discourage complaining.

Where these apply consumers may feel that voice or exit have limited effect so normally respond by staying loyal. Active consumers may respond by exiting but this will still not lead to an improvement in service for other consumers. A pilot study was conducted to identify three sectors – one thought to be a loose monopoly, one thought to be at the other extreme, and a third in the middle. The industries were medical care (most like a loose monopoly), auto repair (customers complain but do not understand options and feel that other providers are just as bad), and grocery retailing (least like a loose monopoly – people feel able to complain and there are several alternatives available).

The hypotheses of the report are then outlined. Surveys have found that concentration is not linked to dissatisfaction but the number of firms is linked to the use of voice. 23 per cent of medical customers complained compared with 48 per cent for auto repair customers. It is expected that fewer complaints will be registered with the company if they tend to have less impact, and that grocery firms will encourage complaints to maintain custom. Thus the use of voice, exit and word of mouth were all expected to rise as the industry became more competitive (i.e. higher for grocery). The use of third parties (i.e. regulators) is expected to increase in less competitive industries where consumers have few alternatives. More competitive industries are all expected to have a higher perceived response to complaints and to resolve a higher proportion

of them (a previous study found 35 per cent resolved for medical and 44 per cent for other services, but the results were also affected by demographics). One thousand people were asked whether they had any problems with purchases in the three sectors investigated. Approximately equal numbers of problems were found in each industry and about 30 per cent of people who were asked could remember a problem (a previous survey gave a figure of 21 per cent). Various types of complaint and other action were specifically asked about and consumers ranked their satisfaction on a 7 and a 10 point scale.

Results: The decision to involve a third party regulator does not seem to depend on the type of industry. It appears this is determined by more complex factors, although it may be linked to consumers' age. It was confirmed that complaining was more common in the grocery and especially automotive sectors (about 80 per cent of those with problems) compared to the medical sector (48 per cent). Demographics do not seem to affect this. Surprisingly it was found that private responses occurred most in the medical industry (66 per cent) where exit was also high (50 per cent here, but 60 per cent in a previous study). In the grocery industry, private action occurred in only 32 per cent of cases and exit in only 13 per cent. This seems to have changed over time as people become more aware of their role in consuming medical services. The variance of exit increases with higher levels of dissatisfaction, for younger people and for women.

The perceived response was greater for groceries than for auto repair, which in turn was a lot greater than for medical care. Responses about the specific resolution of the particular problem seemed to be more varied as education level and level of dissatisfaction increased. More people were satisfied with the response of grocery firms (score 7) than auto repair (score 5.5) or medical suppliers (4.5). This effect was stronger as dissatisfaction and education increased.

Comparing the three sectors consumers who were dissatisfied had the following responses:

- Grocery (selected for few problems): voice 76%, private 32% (exit 13%, WoM 28%)

- Medical care (problematic selection): voice 48%, private 66% (exit 49%, WoM 57%)

- Auto Repair (middle): voice 84%, private 60%, (exit 34%, WoM 75%)

In auto repair there is no psychological barrier to complaints so there is high level of complaints but they are ineffectual so there is still high exit. Encouraging complaints can be an important competitive tool – for instance, even if complaints are ineffectual, if they are easy to make 46 per cent of dissatisfied customers tend to remain loyal. If the complaint is addressed by the firm, 70 per cent tend to stay loyal.

Medical care has external bodies to regulate it but these seem to have little effect on consumers' experiences and exit has the least effect on the firms involved. Auto repairers have self regulation and third party bodies and consumers use both exit and voice but these still seem to have limited effect. In order to judge consumer satisfaction it is much better to ask consumers or measure their beliefs about the action taken to resolve complaints rather than rely on the number of complaints or switching. In general, voice or complaining behaviour is determined more by

industry structure whereas the decision to exit or switch is influenced by the individual consumer's characteristics as well as the industry.

Warland, R.H., Herrmann R.O and Willits, J., "Dissatisfied Consumers: Who gets upset and who takes action", The Journal of Consumer Affairs, 1975

Synopsis: this paper uses survey data to analyse which consumers get upset about business practices and what actions they take.

Full summary: the data presented was obtained in late summer and autumn of 1972 by telephone interviews with 1,215 US adults taken from a nationwide random stratified sample. The characteristics of the sample closely resembled the census in terms of age, income, residence distribution, race and degree of unemployment. Respondents were asked to recall their most recent, salient negative experience in the marketplace and report their reaction to the experience. Specifically they were asked, "Lately, have you gotten good and mad about the way you were treated as a consumer?" If the answer was affirmative, they were then asked what they had done about it. The responses led to the identification of three groups of consumers: those who were upset with their treatment and did something about it (Upset–Action); those who were upset with their treatment and did nothing about it (Upset–No Action); and those who reported not being upset with how they had been treated (Not Upset).

The most common action that people who were upset took was to complain personally to someone in the marketplace, such as the store manager (32 per cent). The next most frequent activity was to do nothing (25 per cent). The (Upset–Action) group tended to earn higher incomes and be better educated, more frequently from higher social classes, more active in formal organisations and more politically committed and liberal than the other two groups. The (Upset–No Action) group tended to be less well-to-do, less-educated and did not engage as often in consumer and political actions than those who got upset and took action.

One of the most important implications drawn from the findings was that the volume of complaints received by businesses and government could not be regarded as being a true measure of consumer dissatisfaction. The authors also stated that consumers who get upset but take no action should not be ignored or assumed to have consumer problems similar to the affluent and well-educated consumers who do complain.

Nottingham University Business School, "Research into misleading price comparisons", Report prepared for the OFT, 2005

Synopsis: this paper investigates consumer responses to comparative price advertising, particularly former price comparisons. The authors consider the potential for this type of marketing activity to result in consumer detriment.

Full summary: this is a largely empirical piece of work that assesses the types of reference price advertising firms use, assesses the literature on how advertised reference prices (ARPs) can cause detriment and then examines the effect of ARPs on consumers' attitudes and intentions.

Types of prices used and consumer behaviour: few firms used comparisons with competitors, and only about 10 per cent mentioned RRP (recommended) or similar standards. The rest just compared to a previous price mostly just using was and now, with a significant number also including a "save" cue and others with a saving but no previous price.

One third of people compare prices in (newspaper) adverts, half use the internet, three quarters visit shops, and half ask others.

Theoretical responses and detriment: most consumers are thought to update an internal reference price with the advertised reference price [ARP] and then assess whether it is worth continuing searching based on the selling price and internal reference price. Consumers who are not "involved" (based on personal relevance, interest and subjective judgment) may not have an internal price to compare with and so will be more likely to believe the advertised reference price. A high advertised price may be ignored or could cause a new (e.g. higher quality) product category to be formed with a new reference price. Consumers who are sceptical of an ARP can discount its value by about 25% but may still be influenced by it. The believability of the offer is affected by the retailer credibility. A higher advertised price should increase consumers' opinions of quality and thus the perceived value of the acquisition. This value may be interrelated to the "transaction value" or how good a deal it appears. The increased values will reduce a consumer's intention to search and increase their intention to buy.

The definition of detriment used in the paper is the loss to consumers of misinformed/uninformed decisions. The effect of advertised reference prices on consumers could create incentives for firms to set these prices above the actual level of previous prices and thus create detriment via misinformed consumers. This may create a barrier to entry to honest firms that did not want to use this tactic and damage their reputation. If firms notice the existence of lower search and higher willingness to pay they can increase prices. This is the reason for prescriptive guidelines regulating offers and advertised prices, such as specifying when a sale price is valid.

*Effect of ARPs on consumers' attitudes and intentions***:** previous studies have found that most consumers believe most shops sell at the RRP and thus these comparisons are the most effective in influencing consumers, followed by percentage discounts and absolute discounts. About half of consumers consider the deals genuine and it is less likely that consumers will continue searching for low-ticket items such as books and chocolate.

This study found that high discounts were less believable (p=0.078), and that the addition of a time limit or the location of the advert (e.g. internet compared with shop) did not affect believability. High and unspecified discounts had a large positive impact on perceived transaction value. No ARP seemed to cause higher transaction and acquisition values, but lower purchase intentions, than low discounts. There were significant product differences. Thus holidays showing a high discount for a limited period tended to increase search intention; for TVs, in-store discounts seemed more effective. Percentage discounts seemed most effective on medium discounts, with discounts stated in absolute terms being more effective elsewhere (e.g. for high discounts and low discounts). RRP was most effective (relative to other presentations) for high discounts. For cheaper products the percentage discount seemed more effective, and purchase intention increased more.

Urbany, J., "The effects of plausible and exaggerated reference prices on consumer perceptions and price search", Journal of Consumer Research, 15, 1988

Synopsis: this paper examines whether price claims affect consumer perceptions and price search behaviour, and includes simulation of shopping exercises. Compared to an advert with no reference price a plausible and even an exaggerated reference price raised subject's estimates of the seller's regular price (even for the more sceptical subjects). The exaggerated reference price increased the percentage of subjects who purchased the product without checking other stores' prices.

Full summary: the article discusses belief formation and how a reference price above the internal reference price can cause beliefs to be revised upwards. There are potentially two types of utility: acquisition utility (expected pleasure of use of product minus displeasure of paying for it), transaction utility (the perceived merits of a deal after purchasing the product, a function of the actual price and the consumer's internal reference price). Hence, raising the internal reference price makes the advertised price seem more attractive by increasing the transaction utility.

Subjects in the experiment received information about the number of stores at which different brands were available and the range of prices in the market (for different electrical products). Subjects had a bank balance and were given telephone and time costs of search and had to maximise the final bank balance. The second study had higher search costs.

The first study found that, far from rejecting the exaggerating reference price (because it was outside their expected range of prices), consumers just discounted it. As with lower reference prices, it still had positive effects on consumers' estimates of regular price, average market price, consumers' perceived value, and on the likelihood of purchasing without checking. This happened despite consumers saying the price was not believable and responding similarly to the normal reference price. In the second study changing the actual sale price sometimes had no effect on the estimated regular price. The other results were consistent with significant impacts of exaggerated reference prices on perceived prices.

A higher plausible reference price consistently makes the offer appear to be better value. When the actual sale price was particularly low, together with an exaggerated reference price, this caused subjects to disparage the reference price and thus it had little effect on perceived prices. However, for the other sale price even the most sceptical subjects assimilated the reference price into value judgements. There was some evidence that the sceptics behaved consistently with their preferences but the others did not. This may be because the others were more extreme but generally less certain about their perceptions.

The study suggests that the mere discounting of an exaggerated reference price is more likely when consumers are uncertain about price expectations, while those in the later stages of search might be more likely to reject the reference price. The student sample limits the usefulness as students are less likely to have price priors. The effects of reference prices separately on transaction and acquisition utility could be assessed. Previous work has suggested that reference prices may not influence consumers because they are sceptical, but this research suggests that they still exert influence despite not being trusted. The study also did not account

for an advert that moved consumers into action because all subjects were told that they had to purchase one of the particular good.

Hess, J.D., and Gerstner, E., "Can Bait and Switch Benefit Consumers?", Marketing Science, vol. 9, No.2 (Spring 1990) pp. 114-124

Synopsis: Hess and Gerstner present a model of bait and switch with characteristics similar to the following: (1) retailers only advertise selected brands; (2) often low priced advertised brands are under-stocked; (3) in-store promotions are biased towards more expensive substitute brands. They show that bait and switch can benefit consumers because utility is created through in-store promotions and price competition is enhanced.

Full summary: in Hess and Gerstner's bait and switch model: stores advertise certain brands at low prices, under-stock them and promote other brands in-store at a more profitable mark-up. Rain checks are offered to consumers who face a stock outage; these entitle the holder to buy the item at the advertised price when the store restocks. Consumers select stores using price advertisements but stores have monopoly power for unadvertised brands when consumers are in the store because of high search costs. Stores only promote non-advertised brands to consumers that face a stock outage.

Hess and Gerstner assume that consumers foresee stock outages of advertised brands. They also assume that in-store promotions can create permanent utility because they help consumers to differentiate between brands and acquire a better fit to their preferences.

The Federal Trade Commission's policy on bait and switch requires stores to have adequate quantities of featured brands available for purchase. Supporters of this policy claim that stock outages of advertised brands are unfair even when rain checks are offered because of transaction costs and delayed consumption associated with rain checks.

Hess and Gerstner claim that the Federal Trade Commission's policy does not take account of the impact of the competitive process that follows bait and switch. Their model shows that bait and switch can enhance economic efficiency for the following reasons: retailers are motivated to cut the price of advertised brands to very low levels by competition to attract customers. As consumers can foresee stock outages, stores must guard against overdoing them. The stores cannot take full advantage over consumers already at the store because they have committed to a low price for the advertised brand. The benefits from low advertised prices and in-store promotions can exceed the costs of using rain checks.

The assumptions essential to Hess and Gerstner's argument are:

- Consumers foresee stock outages of advertised brands.

- Due to high search costs, retailers have monopoly power for unadvertised brands over customers already at the store.

- In-store promotions create "real utility". As long as information presented is not false, consumers can benefit as it helps them better to fit the brands to their preferences.

Due to the potential for consumer gains from better matched preferences and enhanced price competition, the authors suggest that the FTC should investigate further its ban on bait and switch.

Wilkie, W.L., Mela, C.F., and Gundlach, G.T., "Does "Bait and Switch" Really Benefit Consumers?", Marketing Science, vol. 17, No. 3 (1998), pp. 273-282

Synopsis: Wilkie et al explore the impact of the two components of bait and switch: "out of stock" and upselling. They disagree with Hess and Gerstner's view that bait and switch benefits consumers and state that bait and switch practises should not be legalised.

Full summary: Wilkie et al outline the major aspects of bait and switch practises and the law. They list several generalisations regarding the bait and switch practice:

- Actions were coordinated and practised, relying on gaining sales through deception.

- Bait and switch victims often ended up paying much more than the price featured in the bait advertisement.

- Customers were often poor, uneducated and susceptible to "hard sell" techniques.

- "Easy credit" was often used to encourage sales but often led to later problems with debt collection agencies.

- The after sale actions of bait and switch sellers often revealed a contempt for customers, such as a refusal to honour warranties.

The authors extend Hess and Gerstner's model. Hess and Gerstner's model assumed that consumers always bought the advertised item if it was in stock. Wilkie et al relax this assumption to disentangle to effect of upselling from the effect of out of stock.

Wilkie et al find that the reported increase in consumer welfare arising from out of stock conditions at stores is due to the utility created by salespersons' explaining product features (upselling), not by the out of stock. The authors therefore claim that bait and switch practises result in harm to consumers and should not be legalised.

Wilkie et al also suggest that future models of bait and switch should incorporate explicitly the planned fraud and deceit associated with many bait and switch schemes.

**Hess, J.D., and Gerstner, E., "Yes, "Bait and Switch" Really Benefits Consumers",
Marketing Science, vol. 17, No.3, 1998 pp. 283-289**

Synopsis: Hess and Gerstner respond to Wilkie et al's postulation that laws prohibiting bait and switch will not harm consumers if upselling is equally effective when the bait brand is available as when it is out of stock. They claim that their earlier conclusion is correct in a general setting: a law prohibiting bait and switch in a competitive market can reduce consumer welfare but never improve it.

Full summary: Hess and Gerstner use a model that allows for differing probabilities of a consumer switching when the bait brand is available. They assume intense price competition among retailers in the sense that firms attempt to attract consumers with discounted advertised prices and in so doing drive retail profits to zero (a "normal" return on assets). The retailer has an incentive to leave consumers just indifferent between staying at home or going to the store. Once at the store, the retailer has the power to price the switch brand to leave the consumer indifferent between taking a rain check or buying the switch brand.

Hess and Gerstner argue that consumers are protected from bait and switch by competition, which transfers the gains from informative upselling to consumers. They claim that where bait and switch occurs it creates welfare gains and when it would create welfare losses it does not occur, regardless of laws.

The authors do, however, recognise that there are some types of market where competition between retailers is not so intense and so their conclusions would not hold. They state that if retailers had monopoly power based on geographical location or collusion the benefit of better matching of consumers to brands may not be transferred to consumers as in the competitive case.

The authors agree that a law against fraud is useful but state that this is regardless of whether the fraud is associated with bait and switch.

OFT 826, "Focus group research on consumer detriment", January 2006, prepared for the OFT by FDS International

Synopsis: this paper describes the results from a series of focus groups which met in November 2004 to discuss their own experiences of consumer detriment. Participants were also given a list of different scenarios and asked to discuss where they felt consumers had suffered detriment. There were 11 extended focus groups with participants drawn from a cross section of different types of people, to ensure that views were broadly representative of the UK population.

Full summary: focus group discussions lasted approximately 105 minutes, starting with general conversations and exploring participants' experiences of poor products or services where their expectations had not been met. Participants were also given stimulus material consisting of leaflets or letters for "scams", dubious offers or borderline business practices and asked to decide whether or not each was a scam. Towards the end of the discussions participants were given a list of instances where there appeared to be cause for complaint. These instances included curtains shrinking when being dry cleaned and a customer being unable to cancel a £3,000 order for double glazing he had signed up for after a visit from a pushy salesman. Participants were asked to award marks out of 10 for each scenario in relation to financial hardship and stress/inconvenience. Some groups also gave scores for whether each scenario hit the most vulnerable or happened often in that kind of transaction. Finally, participants were asked to identify three areas where they thought the regulator should be particularly concerned.

Discussions highlighted a wide range of factors which were considered to represent consumer detriment, including: financial loss, paying more than necessary, or making unnecessary payments for goods/services; stress; inconvenience, e.g. being without a product or having to make an effort to sort out problems; fear or upset, e.g. when an elderly person is intimidated by people coming into his/her home; or someone feels they have been made a fool of; and disappointment, e.g. for products not being as good as they had hoped or not receiving a prize they had been led to believe they had won.

Participants did not consider that a consumer had to be aware of detriment for it to exist, for example, having unnecessary house repairs would cause someone to suffer detriment even if they never became aware that they were unnecessary.

Focus groups found that although there are some groups more likely to suffer detriment such as the young and elderly, individuals vary enormously and common sense, lifestyle and personality were at least as important as demographic factors in influencing the likelihood of suffering detriment. Other factors such as whether people were preoccupied with personal issues were also important. A broad range of situations were discussed including some where customers might have contributed to their own detriment: for example, if they were unable to describe a problem correctly over the phone they might be charged for an engineer to be dispatched to repair a boiler that could not be repaired. In other situations a customer might buy a product only to find out they could have obtained an equivalent product at a much lower price elsewhere.

When assessing the list of situations for financial hardship people found it relatively easy to assign scores. However, they found it difficult to give numeric scores for stress/ inconvenience/

other hardship and few were willing or able to attempt to place a financial value on this hardship. When trying to place a financial value on stress they often related this to financial loss, equating it to say, 50 per cent of financial loss. Some gave a value which reflected the extent to which they thought the organisation causing the detriment was culpable and should be punished.

There were also instances where emotion, prejudice or pre-conceived negative views of particular types of organisation affected scores for financial hardship. For example, negative views of banks and a view that there is always likely to be a higher degree of risk in buying a cheap used car meant that most people gave higher scores for financial hardship where a customer had paid £50 in overdraft charges than when a consumer wasted £1,000 on a faulty second-hand car.

OFT workshop on consumer detriment, 2005

This workshop focused on the psychological and sociological aspects of consumer detriment. The summaries that follow are based on transcripts of the presentations and the discussions that followed.

[✂]'s presentation covered a number of themes. The first was **value perception and preference construction**, which means that people do not reveal preferences but construct them, and only value products in relation to particular reference points. Consumer detriment can be created by changing the reference points people have, but this may only be changing people's choices and they are not necessarily unhappy with the outcomes. People will put in more effort to save a fixed amount of money on a cheaper product. Losses are viewed as more important than gains because people feel a sense of loss more severely, so firms can take advantage of this by giving trials of products. More people will choose insurance with a rebate than with an excess even if the amounts paid in each case are identical with only the presentation changing.

The second theme was **information integration strategies**. Research suggests people use simple heuristics to evaluate products due to a trade-off between effort and accuracy. Thus people can be exploited because they do not have time to adapt and adopt more rational decision making. Product standards (product specific features such as number of pixels) can sometimes only be evaluated when two competing products are seen side by side. When there is a known brand in a sample (even if this is mislabelled) people tend to sample less and often end up selecting the worst product (e.g. has worst taste) just because of the brand.

The third theme was there is a **tacit explicit gap.** The information people say they are taking into account may not be that which actually statistically influences their behaviour. People tended to choose the item positioned to the right in a selection of identical items, but denied this was the mechanism they used. If people are doing intuitive tasks and they are asked to think it through, that tends to change their preferences.

The fourth theme was **intertemporal choice.** People are poor at predicting what they are going to want. Inconsistent discounting of future payoffs by consumers creates scope for exploitation by firms. The closer in time that a person gets to a cost (e.g. a commitment to give up an addiction) the more likely they are to demand a high return for incurring that loss. If the return is not high enough they will delay the activity into the future (possibly continually delaying the activity because preferences are time inconsistent).

International differences were mentioned. Offers of 3 for the price of 2 would be deemed to be misrepresenting in Germany. In the UK it is illegal to use lotteries as promotions, thus people may first be asked to answer an easy question before names are drawn in order to turn the promotion into a competition.

[✂]'s presentation: Over a consumer's lifecycle it is a good thing to allow the transfer of resources through time. However, there are problems with consumer credit. For instance, if consumers are focused on comparing the APR (annual percentage rate) they may miss the fact that with a credit card (which will usually charge a higher APR) they can pay a debt off more quickly than with a loan and thus pay less total interest. Consumers may also be aware of the monthly repayment

but not the size of their accumulating debts. Consumers try to control debt problems by for instance taking out a very short loan to get it out of the way quickly or a very long loan with low monthly payments that can be afforded.

Alternatively consumers can take precautions such as taking out payment protection insurance. Taking the insurance is associated with reducing worry; it appears people take out credit commitments and then worry about them, which may be detriment. However, people may not be worried because they have not read the small print but may later have difficulties claiming for losses, which may be a form of detriment. In one test the same number of people took out insurance even though the cover was much worse or the price increased, indicating that people find insurance products hard to value intrinsically. The same people take out payment insurance repeatedly, some thinking it helps with the loan application. People who do not repeat these transactions do not learn how they might be exploited.

[✂]'s presentation: In some markets consumers lose out due to information asymmetry, despite doing everything right. In other situations people are irrational and in a third type of case there is "no fault detriment" where people are making the choices that they wish to but there are unfortunate consequences. People commonly say they are not in debt despite having mortgages, credit cards, or hire purchase agreements. These commitments seem to be regarded as normal borrowing and seem to be psychologically distinct. Almost by definition in crossing that threshold to be considered in debt they have engaged in an inefficient transaction. Did the firm fail in a duty of care to allow that situation?

Sometimes the wealthiest people owe the most at any one time. Features that correlate with crises debt also correlate with moderate debt. A good way to go bankrupt is to inherit a business or go into self employment. Debt can also occur due to excessive optimism or living beyond one's means. Some correlates of debt are low income, large necessary spending (especially due to children in the household) and being young, and a trigger of going into debt is Christmas. Women are less likely than men to be in debt when they are in equivalent economic positions (e.g. students). The elderly are not vulnerable to debt, but this could be a cohort effect with later generations more willing to borrow. Sixth formers are extreme in their opposition to debt but later as students they accept it. Poor people may not be able to get into debt in the first place so there may be a shock needed for crisis debt.

[✂]'s presentation: Consumer vulnerability could be linked to disabilities such as visual impairment, being wheelchair bound, or arthritis (e.g. not being able to open packets). If a financially vulnerable consumer cannot get credit elsewhere they are vulnerable to black market products. 45 per cent of the UK population wears glasses but only 25 per cent do so when shopping, causing self imposed detriment. Sell-by dates are especially difficult to see. Promotions are a lot clearer (in terms of colours) than product information. 20 per cent of consumers often confuse own label and manufacturer brands. However, some brand differences are arbitrarily created, with all the brands being owned by the same firm. Information overload can cause detriment as the more confused consumers are the less they trust the marketplace. It could make a difference if the information was drafted by the firm but comes from an independent source to stop consumers getting locked in (the example that was given was annuities).

[✂]'s presentation: Detriment has been defined from an economic perspective focussing on initial choice processes, but ongoing complaints formed a major part of the OFT estimates. If organisations have a strong market orientation, are closer to their customers and are delivering more effectively to their preferences then this should reduce the potential for detriment. Equally market segmentation and tailoring products should reduce consumer detriment. If firms are monitoring their consumer satisfaction ratings and trying to improve them, then that should reduce the amount of detriment. However, marketing may be used to exploit more vulnerable groups such as those who are less involved. Over-segmentation can cause customer confusion (sometimes referred to as pricing fog). Choice can be distorted by strong brands as people place too much weight on them.

[✂]'s presentation: A caring long-termist organisation is, at least hypothetically, less likely to subject its customers to detriment. For an average firm only one in five or so of its customers are likely to be consistently profitable. Some organisations do not target low return customers (e.g. rural bank customers) so firms may not be providing customers with detrimental outcomes; instead, they just do not provide anything. If firms try to prevent switching by targeting those customers that consider switching then the customers they retain will be the volatile customers rather than the average ones. These have lower value and so the value of the retention achieved is rather lower. Switching costs can be raised by bundling products or introducing loyalty programmes. In certain areas long term customers recommend less, may not buy more, and may have a low incremental value from marketing (though high overall value). Effective choice may sometimes be lower than might be expected (according to psychologists, people typically have just three potential marriage partners, despite the fact that there are 25 million people of the opposite sex in the UK).

[✂]'s presentation: Shopaholics lose control of buying and spending and continue with this behaviour despite harmful effects. Typically such a person will spend by applying for credit cards and complain that limits are increased without deciding whether the money lent can be paid back. 20 per cent of people in severe debt had a compulsive consumption profile. Psychiatrists estimate that 2-5 per cent of people (0.5 million people in the UK) suffer from clinical compulsive consumption. 8-16 per cent of adults give scores that indicate detriment in self-report compulsive consumption surveys. However, this is higher in the young with self-report surveys showing 44 per cent of sixth formers suffer detriment. (Women were more likely than men to be affected with 90 per cent of sufferers being female, but the gender gap is closing over time.) The younger people effect is partly because materialistic values are stronger in young people. There is also concern that advertising shows a very unrealistic world and people buy into those ideals.

[✂]'s presentation: Complaining seems to be less about the purpose of the complaint and getting redress and more conditioned by opportunity factors, the most prominent of which is being confident about complaining (which is a personal capacity). Satisfaction is a personal and event orientated concept. Attitude is timeless and relates to the business or industry in general. In the US if consumers are asked whether they are satisfied or not there is a ratio of five to one in favour of people who say they are satisfied (this ratio might be less in the UK and even less in China), possibly due to bad products getting driven out of the market. Two-thirds of all complaints about services involved the actual interface (usually face to face), however the interface may not be the cause of the most serious complaints. First Direct customers had a much higher satisfaction with

ATM services than HSBC customers even though they use the same network, thus consumers may be a bad source of information on their own satisfaction/detriment. One study found that if you ask people whether they are satisfied then they are more satisfied as a result.

If the space allocated to a product in a supermarket is doubled, sales increase by 20 per cent (standard spatial elasticity effect). If you play German/(French) music in a shop you sell more German/(French) wine. The reason people buy Coke may be to label themselves as the sort of consumer who buys Coke, thus if they do this they cannot be dissatisfied or suffer detriment because they have reaped the benefit.

[✂]'s presentation: One of the consumer detriments suffered by elderly consumers is their lack of access. Only 2 million out of 11 million UK over 65's live in poverty. The assumption about older people having poor consumer information is often wrong. 60 per cent of 50 year olds (and 25 per cent of 59 year olds) still have dependent children at home reducing disposable income. There is some indirect age discrimination, in that insurance companies and doctors often use age as a proxy for all sorts of other variables on which they want to base decisions.

[✂]'s presentation: There are shifting challenges in how consumers organise their daily lives and their perceptions of time pressure. Many solutions, including products to solve the problem of lack of time, are misplaced. Consumption is structured by temporal rhythms. Convenience products are more available but people feel there is an increasing shortage of time. Yet every study shows people have substantially more free time than they did 30 years ago. People spend longer per year eating at home but it is happening less frequently. People work more to consume more to have a lifestyle comparable to others within the network of people they know, thus generating a lack of time. Professional classes' hours have increased while labouring hours or the number of people considered labourers have fallen. Work place competition increases the pressure to work harder.

People's lives are more disjointed and have fewer fixed points such as finishing work and so people's need to control, manage and coordinate their daily schedule is ever more pressing. This pressure is intensified by convenience goods which are meant to reduce the feeling of hurriedness. It is the coming together in time and space that has become challenged in the last 30 years. Convenience goods are thus sources of consumer detriment. People experience proliferation of choices very adversely; it is actually seen as negative. If people have more responsibility over decisions (e.g. when to take holidays), they tend to blame themselves when things go wrong (e.g. for poor weather) and suffer more detriment as a consequence. When communist regimes collapsed in the USSR the loss of an entity to blame all the problems of the country on caused a lot of psychological and social poverty.

Activities can be either fixed, interrelated or time filling. Busy spots can be generated by individuals in order to fit in as many things as possible so as to have more time available to meet up with others. The people who read the most in a day are those with the most fragmented time schedules who therefore have more time to fill. People who work flexible hours are more pressed for time than people who work shifts. Having children did not make women more pressed for time, but it did for men (generally there was a large gender gap). Going out does not make people consider themselves busy unless they go out to meet someone by arrangement.

Peter Lunt's presentation: The OFT has defined detriment basically in economic terms as financial detriment that accrues to consumers in consumption. There is a wide range of phenomena that are related to detriment: dissatisfaction, decision-making biases, emotions, actions at the point of sale, marketing techniques, long-term psychological effects like well-being and cultural psychology (cynicism and scepticism). Regulators differentiated between prudential risks from the capacities of firms and conduct of business risks from the way firms go about their business. Psychology reports give a good idea of what a problem feels like but do not link them to a notion that can be used to evaluate how important this phenomenon is from a regulatory perspective. Most contain small-scale empirical research and models but do not address broader consumption questions. A possible definition of consumer detriment (albeit with significant shortcomings) would be "negative psychological, social and financial effects associated with consumer behaviour".

OFT 716f "Psychology of Buying and Selling in the Home" (2004)

Synopsis: the report considers different techniques used in selling and how these are applied in selling in the home. In general, consumers (especially women and older people) were very negative and wanted selling in the home banned. The most common signal that a purchase was going to be problematic for the consumer was that the sales person avoided discussing the price.

Full summary: the report discusses six psychological tools sales people use to influence consumers:

- *Reciprocity*: people feel obligated to repay a favour that another has given them. Salesmen use free samples or discounted prices. Extra items free (on top of discounts) can double the chance of a sale.

- *Consistency principle*: if a sales person gets people to say they are interested (even if they are only being polite), then they will want to keep to their word and honour commitments provided certain conditions are met (e.g. the price is reduced).

- *Scare commodity*: limited time offers focus consumers attention on the negative consequences of not buying, leading them to anticipate regret if they do not buy, encouraging emotions and making thinking difficult. Individuals attach a higher value to losing a commodity that they have imagined themselves as owning than obtaining a new item.

- *Social proof*: people's actions may be guided by the behaviour of relevant others.

- *Liking and similarity*: people like to buy from those they like and whom they perceive to be similar to themselves.

- *Appeals to authority and expert opinion*: in making decisions, people often defer to those they feel are better informed.

These responses are useful and habitual most of the time, but they can work against consumers' best interests if sellers use them in exploitative ways. Consumers may be aware of these sales techniques but still agree in order to avoid psychological costs of feeling uncomfortable, guilty, or embarrassed. People find it easier to talk about positive experiences than negative ones so people who respond to surveys saying that their experience was indifferent may have suffered dissatisfaction. These non-thoughtful decisions are most likely when consumers are uncertain, stressed or overwhelmed by too many options.

The home has unique psychological influences on consumers. It provides feelings of control, self-identity, and emotional warmth, particularly for older people who often spend more time in the home. The home is a more emotional environment increasing the chance that purchases will be overpriced, unsuitable and later regretted. The environment is very different and psychological sales techniques become more effective.

Unsolicited sales visits (and cold calling) and those for high value (worth over £500) products were regarded as more problematic with more use of psychological sales techniques and high

intensity combinations. One survey found 20 per cent of people felt they had bought against their wishes after solicited visits and 26 per cent after unsolicited visits. The relative harm of unsolicited visits was stronger for young women aged 18-34.

The home provides information on the consumer that the seller can exploit to build a rapport. Sellers can adapt to fit into a role as friends (e.g. by expressing a desire to help). The aspect of independence allows sellers to prey on safety fears. Consumers can not walk away as easily in their own homes and are a captive audience for influence tactics.

Almost 90 per cent of consumers agreed there was more pressure to buying at home with 68 per cent feeling strongly about this. Salesmen also feel pressure with harsh commission regimes and incentives.

Three of the psychological factors are especially important in the home:

- *Reciprocity* is easily used because relations in the home are usually closer.

- *Consistency and commitment* become easier with personal information. Over a third of people felt this technique had been used to pressurise them, making them more likely to buy against their wishes in unsolicited visits.

- *Scarcity* techniques are applied by offering one-off discounts. These can be more effective in the home environment because they involve taking customers to their emotional side.

The other three are more complementary. Although liking of the sales person was the sales technique which was the most commonly referred to, it was over-ridden by other techniques in experiments.

The impact of sales techniques is overwhelmingly negative, lowering opinion of representatives, and satisfaction with process, price and goods. 80 per cent have very negative views of in-home buying and want tighter regulation or a total ban. Women and older adults were especially negative in their views.

"Avoid discussing the price" was the strongest predictor of negative consumer experience and the only predictor in solicited visits. First salesmen engage and try to use liking, then commitment and consistency for need, then scarcity at the end to get urgency, with repeated reciprocity.

Improvements could include a cooling-off period, linking the sale of high value assistive products aimed at elderly people (such as stair lifts) to organisations such as Age Concern. Due to the importance of sales people not discussing the price it could be made mandatory to present written price lists at the start of a sales visit.

Hann, I., Hui, K., Lee, T.S., and Png, I.P.L., "Consumer Privacy and Marketing Avoidance", March 2005

Synopsis: Hann et al develop an analytical model that focuses on consumer avoidance of marketing. They show that consumer efforts to conceal themselves and to deflect marketing have an important impact on sellers' marketing strategy. Under certain conditions seller marketing is a strategic complement with consumer concealment. Consumer efforts to conceal themselves from marketing will therefore increase its cost-effectiveness and lead sellers to market more. Therefore policies that encourage consumers to conceal their identities will lead sellers to increase marketing. In contrast, policies that encourage consumers to deflect seller marketing will lead sellers to reduce marketing.

Full summary: in the model developed by Hann et al, multiple sellers compete to market an identical product, which has a marginal cost of production of zero. Sellers solicit customers and set prices simultaneously. Each consumer has inelastic demand for only one unit of the product. There are two consumer segments: one of which has a higher valuation for the product than the other. Consumers can buy the item only if they are solicited (i.e. sellers market to them). All consumers experience some disutility from the sellers' marketing. Consumers may choose to spend resources to conceal themselves or deflect marketing. Sellers cannot distinguish the two types of consumer, until they have incurred marketing expenditures. Sellers ignore the harm caused by their marketing.

The two types of consumer are *type-h* and *type-l*. Given the seller's pricing, each *type-h* consumer's expected net benefit from the item exceeds the harm suffered from being solicited. *Type-h* consumers therefore choose zero concealment and deflection.

For *type-l* consumers the harm that they suffer from being solicited is greater than the net benefit they would get from consuming the item. *Type-l* consumers therefore choose concealment and deflection to protect their privacy.

Hann et al's model has a number of welfare and empirical implications:

- *The distinction between concealment and deflection.*

    o Actions to conceal data from direct marketers include unlisted telephone numbers and anonymous web browsing. These increase the proportion of type-h consumers among the consumers reached by direct marketers. Sellers therefore choose to spend more on information and direct marketing.

    o Actions that deflect direct marketing messages include telephone answering machines and email filters. These do not affect the proportion of type-h consumers among the consumers reached by direct marketers. Sellers therefore spend less on information and direct marketing.

- *The impact of changes in the harm caused by solicitation.* If the harm is higher, consumers increase both concealment and deflection. The increase in concealment causes the population reached by direct marketers to be "richer" in type-h consumers, and hence more

attractive to sellers. Sellers therefore will respond by increasing marketing. The authors point out that this is an example of where free markets do not work well: when solicitations are more harmful, the result is an increase in the harmful behaviour.

- *The differing effects on seller and consumer behaviour of changes in the two characteristics of type-h consumer demand – the number of such consumers and their benefit from the product.* The impact of an increase in the benefit from the product causes sellers to increase solicitations, and type-l consumers to increase concealment and deflection. An increase in the number of type-h consumers leads to sellers increasing solicitations as the potential consumer population has become more attractive, while type-l consumers reduce concealment and deflection as they are less likely to be solicited.   The net effect on solicitations, concealment, and deflection are therefore ambiguous.

The authors state that there is a need for public policy to deal with the externalities created by marketing. There are externalities because sellers ignore the harm caused by solicitations and the *type-l* consumers' efforts in concealment and deflection. The equilibrium levels of marketing (chosen by sellers) and concealment and deflection (chosen by consumers) therefore exceed the social optimum.

Federal Trade Commission (Dennis Murphy) WP 277, "Consumer perceptions of qualified health claims in advertising"

Synopsis: consumers take very different messages from the same advert, and it may not be possible to advertise emerging scientific evidence without giving a large number of consumers the wrong impression on the level of certainty. Science that is very uncertain may not be effectively communicated even on average.

Full summary: the FTC classifies the level of scientific certainty associated with a health claim by using the letters A-D:

- A signifies that the there is significant scientific agreement (though not necessarily unanimous) for a health claim and allows health claims to be unqualified. This was given a score of around the maximum 7 for "very certain".

- B signals that there is a weight of scientific evidence (requiring some qualification of health claims). Given a score above 5 ("somewhat certain") but less than 7.

- C represents relatively weak science and thus health claims needs strong clarification. Given a score of about 3 ("slightly certain") to 5.

- D means that the science is very weak and health claims need severe qualification. (There must be no larger body of evidence that contradicts the claim.) Given a score below 3 down to the minimum of 1 ("not at all certain").

The tests asked consumers to say how certain the science was in a particular advert presented to them. These results were then compared with the level of certainty the FTC wanted to be communicated. The research found that the message received from the advert and consumers' post experiment beliefs about the science were approximately the same (although the respondents may not have understood the difference between these questions).

It appears that qualifiers in health claims do make a difference to how consumers assess the certainty of the science. However, they may not make as large a difference as the science would support. In one test a proof claim only scored an average of 3.9 and this fell to 2.9 for qualified claims. For another the score fell from 4.2 to 3.4. In one test qualifiers seemed to have limited impact on purchase interest but this may have been because people were consuming the product as a snack food and not for its health claims.

For adverts that were designed to express a B level of scientific evidence up to 10 per cent of people gave too high a score and about half the respondents underestimated the validity of the science.

For adverts designed for C science, 35 per cent thought the scientific evidence was stronger than it was, whereas 33 per cent gave scores that were below the targeted level of science. The main finding here was that it is very difficult to give the same message to all consumers with over 10 per cent of the sample each choosing level 1 and level 7 (the two extremes). Thus although the average message was correct approximately two-thirds were deceived by the advert and thus the

advert would be illegal according to rules that allow no more than 22 per cent to receive the wrong message from an advert.

For adverts that were trying to convey level of science D, no advert could give the correct message on average (some giving 72 per cent too much certainty). Even when a "report card" summary of the available scientific findings were presented 57 per cent of respondents gave a score that was considered too high, showing that it was not necessarily the advert but the difficulty of comprehending the low level of scientific support that was the problem.

There were no significant relationships between the demographic variables and the probability of choosing an appropriate certainty weighting. The education variable did lead to better choices in one sub sample.

As noted a key finding was that the adverts (giving a description of the science) were interpreted in widely disparate fashion. The report suggests that other presentations such as figures, graphs or symbols (such as the A-D rating) may help convey the scientific uncertainty better.

Gielissen, Dutilh, Graafland, "Perceptions of price fairness: An empirical research"
Tilburg University

Synopsis: this article investigates factors that influence price fairness judgements. The research finds that people view prices or price increases as relatively more fair when they equate with reference prices, are due to cost increases, are for social motives, are in the self-interest of the respondent, or help relatively small or poor agents.

Full summary: previous work has found that about half of all subjects behave in a way that is significantly inconsistent with pure self-interest. For instance, workers may put in more effort based on a sense of fair treatment. Unfairness leads to dissatisfaction and more price consciousness, complaints, asking for refunds, switching suppliers or negative word of mouth. One of the key points investigated in this article is whether inequalities that exist before the transaction takes place may inform price fairness.

The study investigates the effect of reference prices (previous price and competitor prices) to test whether consumers feel entitled to the price offer. The study tested whether people believe that suppliers are entitled to maintain profits in the face of cost increases. The effects of the motives of sellers for price rises (profit or rationing) are examined. Self interest motives are tested as well as the distributional effects of price changes. The demographic characteristics of the sample (age, sex, income) do not seem to have affected the results.

Each scenario was scored on a four point scale: very unfair 1, unfair 2, acceptable 3, completely fair 4.

*Results***:**

Reference prices: The study found a significant difference of 0.9 in fairness points when the price in most shops was 1/5 lower than the price in question (rather than being the same). If the historical price was 1/3 cheaper 2 years ago then (rather than being the same), this makes a significant difference of 0.7 fairness points.

Cost pass on: A change in price due to a rise in demand (e.g. an increase in demand for shovels following a snowstorm) was considered to be 1.1 points less fair than a price rise entirely due to wholesale costs.

Seller's motives: If the seller's motive was to increase profit rather than ensure a limited resource (e.g. water after an earthquake) was available to all, a 10 per cent rise in price was considered 0.5 points less fair.

Self-interest and perspective: A price rise (1/4 of new price) after a rise in demand (e.g. an increase in demand for shovels following a snowstorm) was considered less fair than a price fall (1/2 of new price) after no demand (e.g. an absence of snow leading to zero demand for shovels) by 0.9 points. Second, when people were asked to imagine themselves as a farmer (rather than referring to the farmer as a third party) in a market where the prevailing price was 3 cents (1/5) below their cost price, the fair price increased by 1.4 cents.

Distribution issues: The use of market power to get the best price was considered 1.1 points less fair when poor producers did this than when rich buyers did so. The payment of low wages in clothes manufacturing in a poor country was considered 0.2 points fairer when a loss making firm was doing this than when a profitable firm did so. The charging of a high price (1/3 of new price added) for software needed to stop a virus is considered 0.6 points fairer when an almost bankrupt firm does this than if Microsoft did the same thing. The salary of the director of a charity (€140,000) is considered 0.3 points fairer when the charity is sponsored by a large company rather than by small contributors. The salary of an electricity company chairman (€600,000) is regarded as 0.2 points fairer when the main customers are large industrial users than when they are individuals.

The results are remarkably consistent for different sub-groups based on income, age, and sex.

"Online Advertising and Marketing Directed toward Children", OECD Directorate for Science, Technology and Industry Committee on Consumer Policy, DSTI/CP(99)1/FINAL Dist: 01-Dec-1999

Synopsis: As part of its 55th Session on 3-4 September 1998, the OECD Committee on Consumer Policy held a forum session on online advertising and marketing directed toward children. There were presentations by delegates from the United States, Sweden, the United Kingdom, and Belgium, which provided information on how different OECD member countries were working to deal with issues related to children and the internet.

The paper is a compilation of the day's proceedings along with background information prepared by the Secretariat and additional information provided by national delegations.

Full summary: the paper starts with some background information prepared by the Secretariat to provide a brief overview of some of the issues:

Advertisers and marketers can use technological tools to gain information about internet users and their online activities. While this can help to provide a more personalised and efficient online experience for the user, it also increases the risk of personal information being used without the individual's knowledge or consent.

Children are particularly vulnerable to data collection practices and are likely to be unaware of the amount or the potential use of the information they give away. Information collected can then be used to design personalised advertising aimed at individual children.

As well as the issues concerning children's privacy and data collection, commercial sites and the activities they offer in order to attract children may pose other risks to children's safety. Children may come into contact with unwanted and potentially harmful conduct or inappropriate information.

The paper then contains remarks by delegates from the United Kingdom, the United States, Sweden, and Belgium. Points raised by national delegates include the following.

United Kingdom: Which country has jurisdiction over a particular advertisement, the consumer's country or the trader's, and which is the applicable law? How can decisions be enforced? How can the suitability of online advertising be ensured for vulnerable groups such as children (but not only children)? There are also difficulties regarding finding the person or persons responsible for violating laws online.

United States: Children are different from adults and do not have the same level of experience or judgement. Sophisticated marketing made possible by the internet combined with the often unsophisticated child means that it is important that there are measures to protect children in the online environment.

Sweden: At the time of the forum, there was a proposal being discussed within Nordic countries based on the premise that companies should make a clear distinction between advertising and entertainment.

The annex to the paper contains additional information submitted by forum speakers and national delegations.

FTC policy statement on unfairness (1980)

Synopsis: the statement sets out how the US Federal Trade Commission (FTC) assesses whether marketing claims or other practices are in the public interest.

Full summary: the three factors that the FTC consider when applying a prohibition against consumer unfairness are whether the practice:

1) Injures consumers;

2) Violates established policy;

3) Is unethical or unscrupulous.

The policy should place consumers who have been injured by an unfair practice on an equal footing with competitors who have been injured by unfair methods of competition.

The concept of *consumer injury* has been broken down into a three stage test:

1) It must be substantial. Emotional impact will not generally be sufficient, but health risks and monetary impact will be considered.

2) It must not be outweighed by any countervailing benefits. For instance, refusing to supply useful product information may reduce the costs of supplying the product.

3) Consumers are not able reasonably to avoid the injury. Hence the focus is on activities that create or take advantage of an obstacle to the free exercise of consumer decision making.

Violation of public policy: When the FTC relies on policy to support action, the policy should be clear and well-established (e.g. by statutes or judicial decisions). It should also be widely shared.

Unethical or unscrupulous conduct is usually an overlapping condition with the previous two and thus the FTC no longer uses it as an independent criterion.
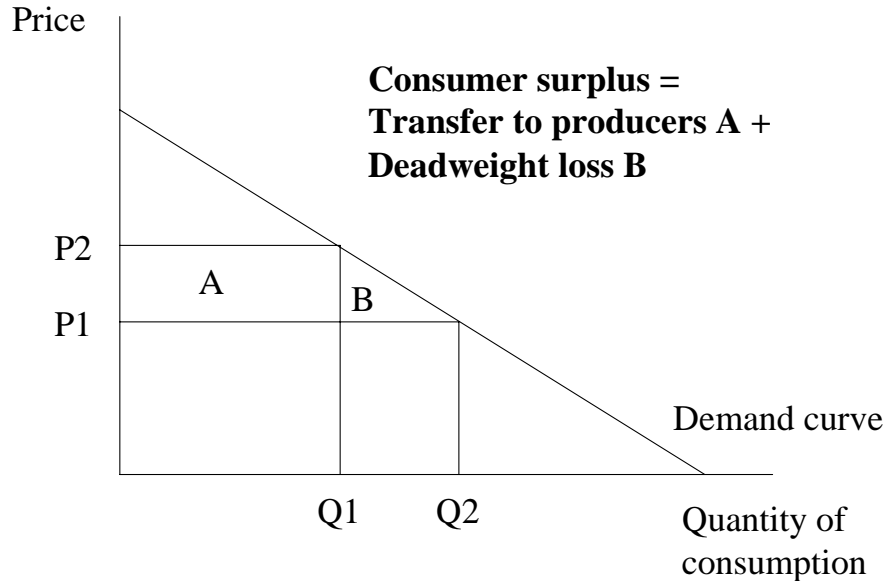
APPENDIX 2: CONSUMER VERSUS TOTAL WELFARE

A2.1   It is not immediately obvious that, as a policy objective, consumer welfare should be preferred to total welfare (i.e. consumer plus producer welfare). A focus on consumer welfare alone could be misleading or could concentrate excessively on the short run.

A2.2   An alternative way to think about consumer *versus* total welfare is to consider whether benefits to consumers in their other roles should be taken into account. Thinking of individuals only as consumers ignores the fact that they may also be employees and shareholders, and may therefore be affected by (for example) the wages and dividends that firms pay.

A2.3   We begin by considering in more detail the *prima facie* case for basing policy decisions on total welfare. We then discuss some possible arguments which could be put forward in favour of an focus exclusively on consumers. Finally, we discuss some issues relating to producer rents and long-term consumer gains from innovation.

The *prima facie* case for looking at total welfare

A2.4   Economic measurement of the problems caused by market failure often focuses on estimation of the total (deadweight) welfare loss. All gains from economic activity (initially accruing either to consumers or to producers) will eventually reach the generality of citizens, so it does not seem unreasonable that governments should try to maximise overall gains to the whole of society.

A2.5   To illustrate the difference between consumer and total welfare, Figure A2.1 below shows the effect of a price rise caused by the exercise of market power. The price increase has two effects on consumer welfare:

  – Consumption falls, leading to a loss of consumer surplus on the foregone units of consumption shown by area B. This represents an overall loss to society, as the loss to consumers is not offset by any gain to producers.

  – Consumers pay a higher price on the remaining units of consumption. This leads to a transfer from consumers to producers shown by area A. There is no overall effect on welfare, as the loss to consumers is exactly offset by the gain to producers.

A2.6   Hence, the total loss to consumers consists of areas A + B whereas the net loss of welfare to society is simply area B.

Figure A2.1: The Effect of a Price Rise Caused by the Exercise of Market Power

Price

**Consumer surplus =
Transfer to producers A +
Deadweight loss B**

P2

A

B

P1

Demand curve

Q1   Q2

Quantity of
consumption

A2.7   Focusing on consumer welfare alone could at times lead to policy decisions which may be sub-optimal. Consider another case (illustrated in Figure A2.2) in which prices are currently below the efficient (competitive) level, perhaps because the market is still adjusting following a shock to demand or supply. Allowing the market price to rise to the efficient level would have two effects on consumers:
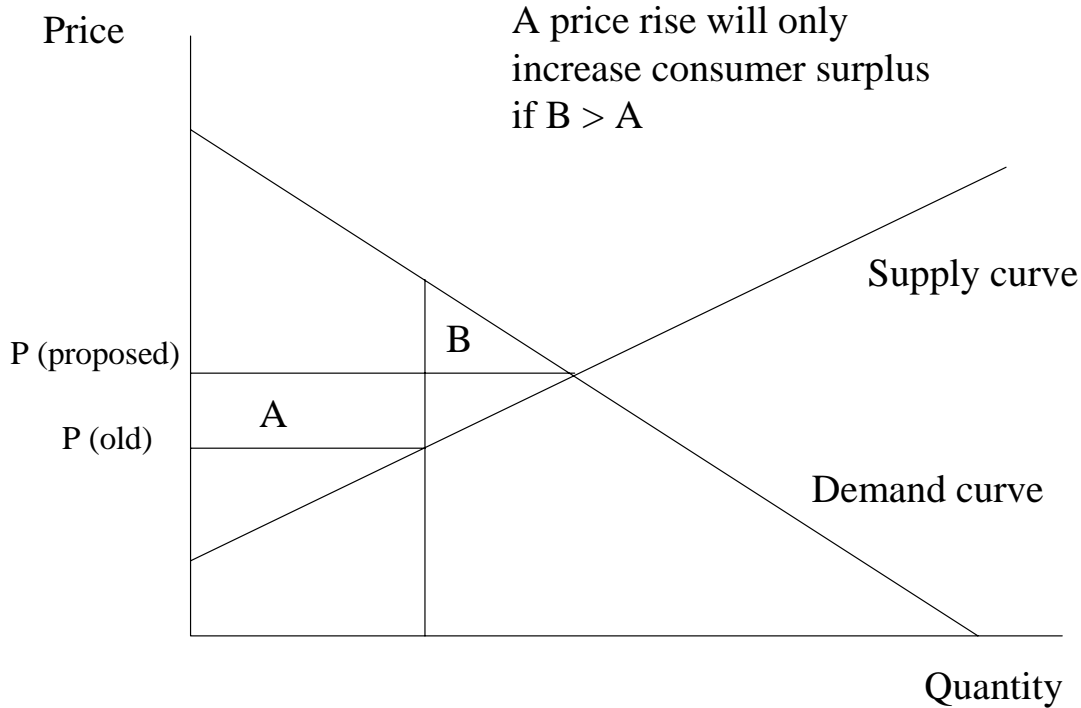
- There would be an increase in consumer surplus (shown by area B) because the increase in price would stimulate further supply, allowing consumers to gain surplus from additional units of consumption.

- There would be a loss in consumer surplus (shown by area A) because the price increase would lead to a transfer from consumers to producers as a result of the higher price consumers pay for existing units of consumption.

A2.8   Now, it is possible that in some circumstances A might be greater than B, in which case consumers would lose overall from the price increase. Hence, if the policy-maker were to focus exclusively on consumer surplus, he/she might decide that there were grounds for intervention to prevent this efficient price rise.[298] If, on the other hand, the policy-maker were to look at the effect on total welfare, then a more appropriate policy conclusion might be reached.

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[298]   Of course, impacts on consumers may have greater effect on voting intentions than impacts on producers. This may explain why governments have sometimes intervened in the past to cap prices even when this has reduced economic efficiency.

Figure A2.2: The Effect of Focusing on Consumer Surplus Instead of Total Welfare.

Price

A price rise will only increase consumer surplus if B > A

Supply curve

P (proposed)

B

A

P (old)

Demand curve

Quantity

Potential justifications for focus on consumer welfare

A2.9   There are, however, possible policy justifications for focusing solely on the consumer impact, although we do not necessarily endorse them. For instance, it might be argued that:

  – If we consider the EU alone, consumers are more likely to be citizens than shareholders, i.e. a proportion of producer rents may leak out of the EU.

  – If it is true that shareholders tend to come from fewer (higher) income groups than the generality of consumers, impacts on consumers as a whole may be considered more important on equity grounds.

A2.10   In relation to the first possible justification, we have been unable to obtain data on the proportion of shares of EU companies owned by non-EU citizens. However, it seems likely that non-EU ownership could vary significantly between sectors. Hence, this argument may be valid in some sectors but not in others.

A2.11   In relation to the second argument, figures on national wealth distribution (and particularly the distribution of shares amongst people) are also difficult to obtain. However, it appears that wealth rises strongly as people get older, and that older people are also more likely to

have a higher proportion of their assets in property (as they dispose of other assets in retirement). In the UK in 2002 the richest 10 per cent of the population held 56 per cent of marketable wealth and the richest 1 per cent held 23 per cent of marketable wealth.[299] These figures have remained roughly constant in the UK and there is some evidence that although they would be expected to be lower in Member States with higher income taxes they may not be that different.[300]

A2.12   A caveat to the distributional argument is that producer rents may sometimes go to workers (for example, because of trade union bargaining power). Hence, a proportion of producer rents may at times accrue to lower income groups, rather than to owners of capital. (Of course, workers in firms selling products or services in the EU may not always be based in the EU or even be citizens of EU Member States.)

Producer rents and long term effects on innovation

A2.13   Short-term economic rents sometimes favour innovation and dynamic efficiency and thus raise consumer welfare in the long run. Schumpeter suggested that concentrated markets might be better at producing innovation. There may be economies of scale in research through the elimination of duplication. Large firms may be able to capture a greater share of the benefits of innovation (through large capital investment and prevention of ideas leaking to competitors).[301] Where investment in innovation may be risky and where it is difficult for firms to obtain outside finance, then retained profits may be a useful source of finance for research and development.

A2.14   If the chosen measurement of consumer detriment focused on static consumer effects, that would ignore how markets develop and how, through producer surplus, they benefit consumers in the longer term.

A2.15   It might in theory be possible to incorporate any additional dynamic consumer gains from innovation within an overall measurement of consumer welfare. This would involve calculating the total change in consumer detriment by adding up (a) the static change in consumer surplus and (b) projected future changes in consumer surplus resulting from innovation, but (c) discounted by a time preference parameter.

A2.16   One example where dynamic consumer surplus is very important in determining policy is patents. If the only consideration were static surplus patents would not exist because they create temporary monopoly power (over the patented product) that increases costs to

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[299]   http://www.hmrc.gov.uk/stats/personal_wealth/table13_5.xls
[300]   The richest 1% figure for France is given as 22% in 1994 and the figure for 1994 ownership of the richest 10% is 67% of wealth "Wealth Concentration in a Developing Economy: Paris and France, 1807–1994" by Thomas Piketty, Gilles Postel-Vinay, and Jean-Laurent Rosenthal.
[301]   However, there are counter arguments to this. For example, large firms will have a greater vested interest in the current technology and thus may want to delay new investment. There may be fewer incentives for innovation if firms are not competing to be the first.

consumers. However, patents are important to dynamic consumer gains when they lead to more and better products by giving rewards for innovation.[302]

A2.17 However, dynamic effects could be difficult to measure and involve several intangibles:

– The effect of current producer rents on the rate of innovation or entry.

– The magnitude of consumer welfare gains from new products or processes that may possess completely new attributes.

A2.18 Where dynamic effects are too difficult to measure, it might be appropriate (in cases where innovation is particularly important, such as pharmaceuticals) to take account of producer gains, treating them as a proxy for long-term consumer gains.

A2.19 However, producer surplus is an imperfect proxy and there is no *a priori* reason to expect static producer rents always to maintain a consistent relationship to dynamic consumer gains.

A2.20 Davies (2002),[303] in discussing targets for consumer savings from competition policy, considers the issue of whether targets should focus on total or consumer welfare. His starting point is that the role of the UK antitrust authorities is to protect consumers, so that the focus should be on consumer interests. A similar argument might apply to DG Health and Consumer Protection. However, Davies recognised that producer surplus might sometimes be associated with long-run consumer gains, e.g. where it provides a reward for innovation or funding for future innovation. He is concerned that these changes are hard to estimate because they involve close examination of company accounts, whereas consumer surplus can often be approximated from prices.

A2.21 The other argument expressed by Davies is that public policy may not want to take producer gains into account because they may sometimes be obtained through undesirable business practices. If producer gains are created by arrangements unfair to consumers, such as restricting competition or distorting information, then government policy sshould not want to encourage their creation. In order to deal with the complexities of different situations Davies advocates case-by-case flexibility, including the recognition of producer gains only where they seem most important for establishing the overall impact on consumers.

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[302] If the policy-maker were interested in total welfare rather than just consumer welfare, then it would imply stronger patent protection than otherwise (e.g. longer patent life). This is because total welfare includes future consumer gains *and* current producer gains (whereas consumer welfare only includes the former).

[303] Davies, S., Majumdar, A., The developments of targets for consumer savings arising from competition policy, OFT, 2002.

APPENDIX 3: SURVEY COST ESTIMATES: IPSOS-MORI'S ASSUMPTIONS

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APPENDIX 4: CONSUMER BODIES IN EU MEMBER STATES

A4.1   The following are brief descriptions of the national consumer organisations mentioned in Table 18.1 as potential sources of complaint data (subject to further enquiries by the Commission). There may be other consumer bodies not included in the list below who also have complaint data.

Austria

Association for Consumer Protection

A4.2   The Association for Consumer Protection represents the interests of all consumers. There are other NGOs in Austria which specialise in specific subjects such as debt counselling services, the elderly (the Elderly Council), the internet (the Internet Ombudsman), and housing counselling.

Belgium

Council of Consumption

A4.3   The Council of Consumption is the central advisory body for consumer problems and consumer protection in Belgium. Its principal role is to advise its Ministers of supervision (the Minister for the Protection of Consumption and the Minister for the Economy), as well as the legislative powers and executive on the issues of interest to consumers.

Association Belge des Consommateurs - Test Achats

A4.4   The mission of the Association Belge des Consommateurs - Test Achats is the promotion and defence of the interests of consumers. Test Achats (test purchases) takes an active part in the improvement of products and services by carrying out comparative tests and by highlighting the products which represent the best value for money.

Cyprus

Cyprus Consumers Association

A4.5   The Cyprus Consumers Association (CCA) is an independent consumer organisation. The CCA's activities include "handling complaints by consumers on faulty, damaged or unsatisfactory quality of products and services."

A4.6   The Association has collected data on consumer complaints for the past seven years. The data are grouped into categories such as food, faulty products, safety, and guarantees. There are some 11 categories. Each year approximately 3,000 complaints are collected by the Association's offices.

Czech Republic

Czech Consumer Association

A4.7   The Czech Consumers Association is a member of, and cooperates with, the Association for extrajudicial settlement of consumer complaints (SPOR). SPOR is an independent association which provides alternative dispute resolution services.

A4.8   The Czech Consumers Association's website includes a "case archive" of past complaints.

Denmark

Danish Consumer Council

A4.9   The Danish Consumer Council is an independent organisation which represents the interests of consumers.

Estonia

Estonia Consumers Union (ECU)

A4.10   The Estonian Consumers Union (ECU) is an umbrella consumer organization with nine member organisations and 300 activists within Estonia.

Estonian Consumer Protection Board

A4.11   The Consumer Protection Board (CPB) is a national authority whose main task is to protect the rights of consumers and to represent their interests.

A4.12   The CPB has a Consumer Complaints Committee which is an independent alternative dispute resolution body able to settle disputes arising from contracts between consumers and traders.

Finland

Finnish Consumer Agency and Consumer Ombudsman

A4.13   The Consumer Agency and Consumer Ombudsman have the tasks of protecting consumers' economic, health and legal positions and of implementing consumer policy. The Director General of the Consumer Agency serves as the Consumer Ombudsman. The Consumer Ombudsman monitors compliance with legislation concerning the protection of consumers' rights and deals with consumer complaints.

France

Organisation Générale des Consommateurs

24.106 The Organisation Générale des Consommateurs is an organisation of French consumers. It is supported by two trade unions, CFTC and CFE-CGC.

Germany

Federation of German Consumer Organisations (VZBV)

A4.14 The Federation of German Consumer Organisations (VZBV) is an independent organisation acting as an umbrella for 40 German consumer associations.

Greece

INKA/General Consumers' Federation of Greece

A4.15 INKA/GCFG is an independent organisation and is the biggest network of consumer organisations in Greece, with 46 member organisations. INKA examines consumer complaints and if a consumer's rights have been violated takes the necessary actions.

Hungary

General Inspectorate for consumer protection (GICP)

A4.16 The General Inspectorate for Consumer Protection (GICP) was established by the Hungarian Government in 1991. It is a budgetary organisation directly accountable to the Ministry of Economic Affairs, with national jurisdiction in the field of state consumer protection and market surveillance. It provides professional supervision to the consumer protection inspectorate of the capital and to those of the 19 counties.

A4.17 The GICP's duties include making inquiries based on complaints made by consumers and taking relevant action.

Ireland

Consumers Association of Ireland

A4.18 The Consumers' Association of Ireland Ltd (CAI) is the only consumer association in Ireland. It is an independent organization which has the aim of representing consumers and making sure that their needs as consumers of goods and services are given a high priority.

A4.19 The CAI collects data on consumer complaints through its website and its National Consumer Complaint register. The website was launched in 2005 and in its first year of operation there were around 1,100 complaints.

Office of the Director of Consumer Affairs

A4.20 The Director of Consumer Affairs is an independent statutory officer whose activities include providing advice and information to consumers and the enforcement of a wide range of consumer protection legislation. The Office does not intervene or become involved in individual disputes.

A4.21 The Office collects data on consumer complaints.

Italy

Adiconsum

A4.22 Adiconsum is a consumer association which operates in all the Italian regions through 283 branches. The organisation is divided into 10 departments which each cover a different sectoral area. These include: transport; credit and saving; and new technologies. Adiconsum deals with consumer complaints.

Latvia

Consumer Rights Protection Centre

A4.23 The primary mission of the Consumer Rights Protection Centre is to protect consumer rights and interests. The Centre also carries out market supervision in the area of non-food products and services and advertising supervision. The Centre deals with consumer complaints.

Lithuania

National Consumer Rights Protection Board

A4.24 The National Consumer Rights Protection Board coordinates state institutions' activities in relation to the protection of consumers. One of the board's activities is undertaking alternative dispute resolution for consumers. It also analyses and examines consumer complaints.

Luxembourg

Union Luxembourgeoise des Consommateurs

A4.25 The Union Luxembourgeoise des Consommateurs carries out a number of activities which protect the interests of consumers. These include an advisory and mediation service; quality controls; price controls; and interventions against misleading publicity.

Malta

Consumers Association Malta

A4.26 The Consumer's Association Malta was set up in 1982 and is made up of volunteers who work to offer a service to local consumers. It acts as a pressure group that brings to the attention of the authorities shortcomings that concern consumers.

Netherlands

Consumentenbond

A4.27 Consumentenbond is a Dutch consumer organisation.

Poland

Consumer Federation

A4.28 The Consumer Federation is an independent organization founded in 1981 whose main aim is the protection of individual consumers in Poland. It operates in the whole country via a network of 49 local advice offices called "clubs" which provide free legal advice to consumers and cooperate with volunteers.

A4.29 The Federation collects data on the type of advice and help which it gives. Information collected includes the service complained about (e.g. banking/insurance), the product sold (e.g. mobiles, household appliances), and the purchase method (e.g. mail order/ internet).

Portugal

Portuguese consumer association (DECO)

A4.30 Deco is the major consumer organisation in Portugal and protects the rights of consumers. Its activities include providing information and legal support.

Slovakia

Association of Slovak Consumers and Association of Consumer Entities of Slovakia

A4.31 There are two umbrella independent consumer organisations working in the Slovak Republic: the Association of Slovak Consumers, and the Association of Consumer Entities of Slovakia.

A4.32 There are also several independent regional consumer organisations. The consumer organisations carry out their activities through regional advisory centres (of which there are approximately 50). The consumer organizations are able to mediate the settlement of disputes between consumers and sellers.

Slovenia

Slovenia consumers Association

A4.33   The Slovene Consumers' Association (SCA) is an independent, non-profit organisation which deals with consumers, consumer information and lobbying on behalf of consumers.

Consumer Protection Office

24.107 The Consumer Protection Office is part of Slovenia's Ministry of the Economy. It carries out a number of technical and administrative tasks relating to the preparation and implementation of Slovenia's programme for consumer protection. The Office has recently begun to collect data on consumer complaints.

Spain

Instituto Nacional de consume

A4.34   The Instituto Nacional de Consume is an organisation which exists to promote the rights of consumers and users. There is an alternative dispute resolution system for dealing with consumer complaints.

Sweden

National Board for Consumer Complaints

A4.35   The National Board for Consumer Complaints (ARN) is a public body which resolves consumer complaints as an alternative to court. The Board hears about 8,000 cases a year. The Board collects data on the number of complaints sent to it and the results of these complaints.

Consumer Agency

24.108 The Swedish Consumer Agency (Konsumentverket) is a public body whose task is to help the general public in Sweden with consumer affairs.

24.109 There are local consumer advisers in the majority of Swedish municipalities, from which the Agency collects complaint data.

UK

Consumer Direct

A4.36   Consumer Direct is a telephone and online consumer advice service which provides impartial advice to help consumers sort out their problems with suppliers of goods or services.

A4.37   Consumer Direct collects detailed data on the complaints it handles (see section 24).

Financial Ombudsman Service

A4.38   The Financial Ombudsman Service (FOS) is an alternative dispute resolution body which deals with complaints from consumers against firms in the financial services sector.

A4.39   The FOS website contains data on the complaints dealt with by the service.   In 2005 it dealt with 110,963 complaints in four complaint areas: mortgage endowments; other investment-related; banking; and insurance.

APPENDIX 5: DRAFT GUIDANCE ON STAGE 2 INDICATOR PROCESS

A5.1   This appendix describes a "stage 2" process for market monitoring. The purpose of this stage is to filter the results of stage 1 in order to:

  – Eliminate "false positives" (i.e. sectors which have been selected at stage 1, but which are not really problematic); and

  – Identify those sectors where there are genuine reasons to suspect the existence of substantial consumer detriment.

A5.2   This stage requires desk officers to make judgements and to assess sectors against qualitative criteria, informed where necessary by limited research and data analysis.

A5.3   Where the information required to assess a sector against a particular criterion is not available, desk officers should proceed on the basis of those criteria which can be applied.

Inputs to Stage 2

A5.4   This appendix assumes that the Commission has identified lists of potential problem sectors as a result of using the following stage 1 indicators:

  – The **market power indicators** discussed in sections 17, 20 and 24 of this report;

  – The **information deficit indicators** discussed in sections 21 and 24;

  – The **consumer complaint indicator** discussed in sections 18 and 24;

  – The **"civic voice" indicators** discussed in sections 19 and 24.

A5.5   The Commission could also use parts of the stage 2 process where potentially problematic sectors are drawn to its attention in other ways (e.g. through political debate, press campaigns or representations from consumer groups).

Overall Process

A5.6   The overall process is illustrated in Figure A5.1. The three recommended steps are:

  – First, to remove sectors whose inclusion is obviously spurious;

  – Second, to evaluate the reasons why sectors were selected at stage 1;

  – Third, to apply further qualitative indicators.

A5.7   Each of the analytical boxes shown in Figure A5.1 is labelled with a letter. In the rest of this appendix, desk officers can find a box of "Questions to ask" for each of these letters,
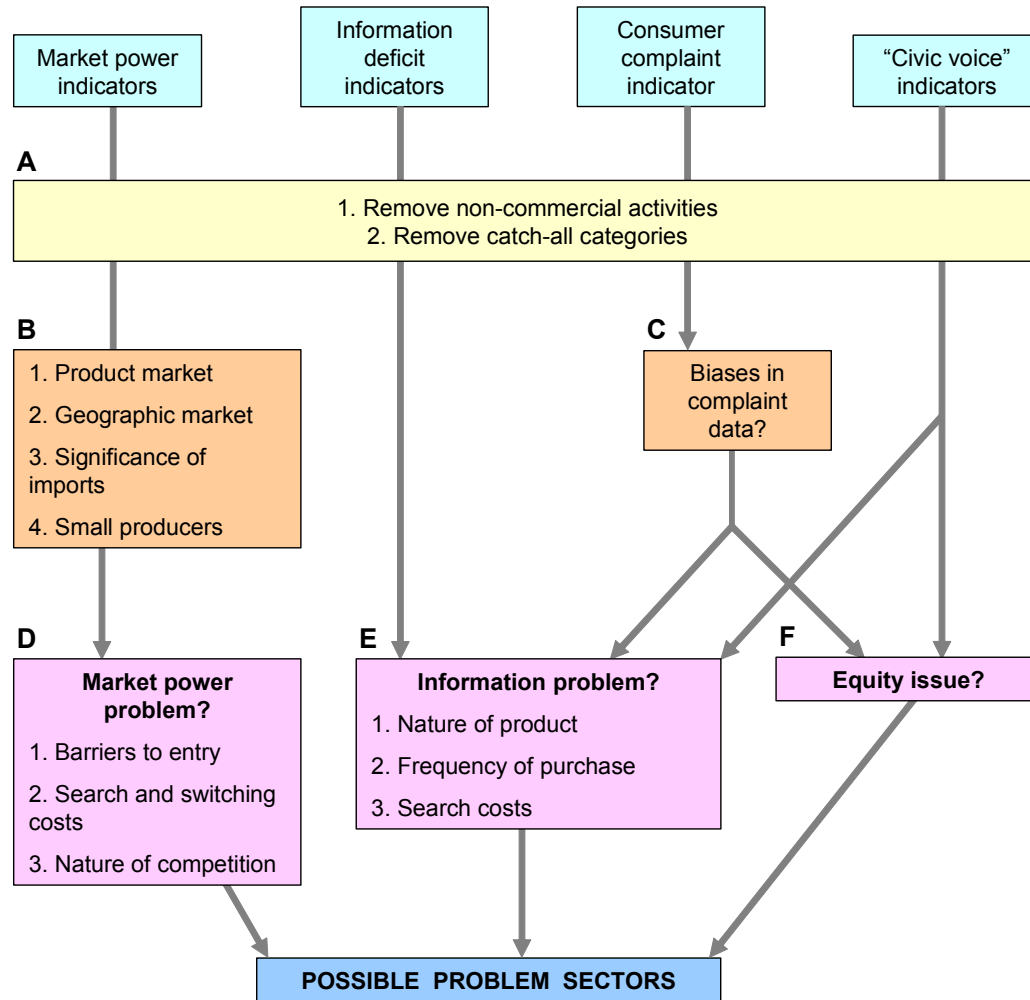
with guidance on how to interpret the answers. Some additional explanatory text is provided in cases where the questions are not self-explanatory.

Figure A5.1: Process for Stage 2 Indicators

1

REMOVE OBVIOUSLY SPURIOUS SECTORS

2

EVALUATE REASONS FOR SELECTION IN STAGE 1

3

QUALITATIVE INDICATORS

Market power indicators

Information deficit indicators

Consumer complaint indicator

"Civic voice" indicators

A
1. Remove non-commercial activities
2. Remove catch-all categories

B
1. Product market
2. Geographic market
3. Significance of imports
4. Small producers

C
Biases in complaint data?

D
Market power problem?
1. Barriers to entry
2. Search and switching costs
3. Nature of competition

E
Information problem?
1. Nature of product
2. Frequency of purchase
3. Search costs

F
Equity issue?

POSSIBLE PROBLEM SECTORS

Initial Filter to Remove Sectors which are Obviously Spurious

A5.8   The relevant questions to ask at this stage are set out in Box A.

Box A   Questions to ask

Does the sector relate to a non-commercial activity?
(If yes, remove from list)

Is the sector a catch-all category?
(If yes, remove from list)

Evaluation of Reasons for Selection at Stage 1

A5.9   The next part of the process involves checking the reasons why the sector was selected in stage 1, with the aim of filtering out sectors which were selected on grounds which (on closer inspection) appear to be spurious.

A5.10   Clearly, the questions which are relevant at this stage will depend on which type of indicator led to the selection of the sector at stage 1. Below, we set out the questions that should be asked for sectors selected by:

  – The market power indicators (see Box B);

  – The consumer complaint indicator (see Box C).

A5.11   For sectors selected by the "information deficit" indicators and the "civic voice" indicators, desk officers should go directly to the third step of the analysis (assessment against qualitative bottom-up indicators).

Market power indicators

Box B   Questions to ask

Has the sector been selected as a result of an incorrect <u>product</u> market definition?
(If yes, remove from list)

Has the sector been selected as a result of an incorrect <u>geographic</u> market definition?
(If yes, remove from list)

Does high concentration disappear once imports are taken into account?
(If yes, remove from list)

Is it likely that apparently high concentration results from the fact that small producers (e.g. sole traders) are missing from the raw data?
(If yes, remove from list)

A5.12   As explained in section 20, a key problem with calculating market power indicators using top-down indicators is that either the product or the geographic market definition may be inappropriate.

A5.13   Desk officers should consider whether the sector has been inappropriately selected as a result of a result of a <u>product</u> market definition which is too narrow. For instance, even if C3 concentration ratio is high within the relevant NACE code, does the product face competition from products in other NACE codes which seem likely to prevent firms from exercising market power?

A5.14   Similarly, desk officers should consider whether the selection of the sector has resulted from a <u>geographic</u> market definition which is too narrow. For example, if the sector was treated as a national market, would producers in the country concerned in fact be constrained from exercising market power by foreign suppliers or importers? Data on the level of imports of the product into the country concerned may help to answer this question.

A5.15   The market power indicators will probably have been calculated on the basis of production data, whereas we are really interested in shares of consumption. Data on the level of imports can also be used to check for the possibility of a significant divergence between the two. Is it possible that the concentration indicator would fall significantly once imports are taken into account?

A5.16   Finally, desk officers should consider whether this is a sector characterised by large numbers of traders which do not have to publish accounts (e.g. sole traders and partnerships in the UK). These traders are likely to be missing from the data used to calculate the market power indicators. Does it seem likely that this has this led to spurious selection of the sector?

i.e.

Consumer complaint indicator

Box C   Questions to ask

Does the large number of complaints simply reflect the large number of transactions in this sector?

Does the large number of complaints reflect the ease of making a complaint in this sector?

Does the large number of complaints reflect the potential redress that consumers may obtain from complaining in this sector?

Is there anything to suggest that complaints in this sector tend to be unreasonable?

(If yes to any of the above, continue to next stage to see if there may be a genuine problem, but be aware that the selection of this sector at stage 1 may be spurious)

Assessment Against Further Qualitative Indicators

A5.17   The third step is to examine the sectors against a further set of qualitative, bottom-up indicators.   The aim is to provide more considered analysis of whether it seems reasonable to suspect that consumer detriment might be present in these sectors.

A5.18   The questions which are relevant depend on the type of consumer problem which may exist in the market.   Below, we set out the questions that should be asked where the relevant problem may be:

– **Market power**, i.e. because the sector was selected on the basis of the market power indicators (see Box D);

– An **information problem**, i.e. because the sector was selected on the basis of the "information deficit" indicators, consumer complaints, or the "civic voice" indicators (see Box E);

– An **equity concern**, i.e. because the sector was selected on the basis of consumer complaints or the "civic voice" indicators (see Box F).

Is there a market power problem?

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Box D   <u>Questions to ask</u>

<u>BARRIERS TO ENTRY</u>

Are there regulations in place which restrict entry into the sector?

Is the market characterised by strong brands?

Does entry into the sector require firms to incur large sunk costs (i.e. costs which cannot be recovered if they exit later)?

<u>SEARCH AND SWITCHING COSTS</u>

Is it difficult or costly for consumers to compare products or prices?

Do consumers incur significant costs if they switch supplier?

<u>NATURE OF COMPETITION</u>

Does competition focus only on one aspect of a product (e.g. price, brand name) when there are other aspects which matter to consumers?

Are consumers locked into purchasing from a supplier (e.g. when buying additional parts) once they have made an initial purchase?

Do consumers take advice from intermediaries (e.g. financial advisers) who are paid on a commission basis by sellers?

(If yes to any of the above questions, there may be a market power problem)

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A5.19   Note that in the case of those sectors selected by the market power indicators, data on concentration, churn and profitability have already been examined (as part of the stage 1 process).

Is there an information problem?

Box E   Questions to ask

Is the product complex to understand?
(If yes, go to supplementary question below)

Is the product a new one, which consumers may not yet understand well?
(If yes, go to supplementary question below)

Is the product one which consumers purchase infrequently?
(If yes, go to supplementary question below)

►   Supplementary question: **Is it difficult or very costly for consumers to obtain the information they need to compare products or prices?**
     (If yes, there may be an information problem)

Is the product an experience good (i.e. where quality can only be ascertained after consumption)?
(If yes, there may be an information problem)

Is the product a credence good (i.e. where quality cannot be ascertained even after purchase, without paying an expert to give a second opinion)?
(If yes, there may be an information problem)

Do consumers take advice from intermediaries (e.g. financial advisers) who are paid on a commission basis by sellers?
(If yes, there may be an information problem)

Are there equity concerns?

Box F   Questions to ask

Do individuals suffer severely when problems occur?

Do problems disproportionately affect vulnerable groups in society?

(If yes to either of these questions, there may be an equity issue)

Conclusions

A5.20 The stage 2 process should produce a filtered list of sectors where there are reasons to *suspect* that consumer detriment may be present. However, a more detailed investigation is required to reach a definite conclusion.

A5.21 At the end of stage 2, data on the size of each sector may be useful in prioritising sectors for further investigation. Desk officers should also bear in mind any other evidence that has emerged from the market monitoring process which may shed light on the extent of consumer detriment (e.g. how serious information problems appear to be).