OECDpublishing

MEASURING CONSUMER DETRIMENT AND THE IMPACT OF CONSUMER POLICY

FEASIBILITY STUDY

OECD DIGITAL ECONOMY PAPERS

April 2020 **No. 293**

OECD

BETTER POLICIES FOR BETTER LIVES

Foreword

This paper examines possible methodologies for estimating consumer detriment, as well as the impacts of consumer agency actions and consumer policy more broadly. It also provides practical guidance for developing and strengthening the effectiveness of consumer policymaking frameworks. The report was prepared to inform a project by the OECD Committee on Consumer Policy (CCP) to explore ways to ensure that consumer policymaking is based on the best available data on likely costs and benefits.

This paper was prepared by Anna Barker, under the supervision of Brigitte Acoca, of the OECD Secretariat. It was approved and declassified by the CCP by written procedure on 2 March 2020, and prepared for publication by the OECD Secretariat.

Note to Delegations:

This document is also available on O.N.E. under the reference code:

DSTI/CP/(2019)13/FINAL

Table of Contents

Tables

Figures

Boxes

Overview

The OECD Committee on Consumer Policy (CCP) has been working for over a decade on improving the evidence base for consumer policymaking to ensure that it is based on the best available data concerning the likely costs and benefits. The purpose of this feasibility study is to continue this work by looking at possible methodologies for estimating:

- consumer detriment associated with consumer issues or problems, which could be used to inform policymaking and the prioritisation of enforcement activities (Chapter 2)

- the impact of consumer agency actions, which could be used to demonstrate the benefits of providing sufficient funding to these bodies, especially in a budget constrained environment (Chapter 3)

- the impact of consumer policy more broadly, to ensure that such policies provide a net benefit to society, and to facilitate comparison and prioritisation between different types of consumer policies and between jurisdictions (Chapter 4).

An earlier draft of this paper was prepared to support discussion at a roundtable on measurement held on 23 October 2019, as part of the CCP's 98th Session (see Annex A for the roundtable agenda). This revised version reflects input from roundtable participants, as well as from the CCP Bureau and advisory group on measurement.[1] Further background to the study, including scope and objectives, is outlined in Chapter 1.

The report highlights that a number of measurement activities are already being undertaken in a number of OECD countries and partner economies. These include the collection of consumer complaints data and the undertaking of consumer surveys covering consumer views, experiences, behaviour, awareness and competencies, and consumer detriment. In addition, consumer agencies hold other information relevant to the measurement of impact, costs and benefits, including case-specific information, market information, budget data, and data on the impact of education and awareness campaigns. These information sources can be used to inform estimates of consumer detriment, consumer agency actions, and consumer policy.

Measuring consumer detriment

Consistent with the *OECD Recommendation on Consumer Policy Decision Making* (OECD, 2014[1]), consumer detriment is the loss or damage experienced by a consumer when she encounters a problem relating to the purchase of a good or service. This could be because the good or service does not meet her requirements, is faulty, is over-priced, or is otherwise sub-optimal in some way. Consumer detriment can be defined as comprising personal and structural detriment. In addition, consumer detriment can be financial or non-financial. Further, there can be "hidden" detriment. As discussed in Chapter 2, while consumer detriment may be a broad concept, not all forms of consumer detriment may warrant a consumer policy response or enforcement action. Hence, measurement should focus on those aspects of consumer detriment that are more relevant to consumer policymaking and/or enforcement action.

A number of jurisdictions have used consumer surveys to estimate the level of personal detriment associated with specific problems encountered by consumers. In most cases, such

surveys have focussed on more measurable aspects of consumer detriment, including financial personal detriment, and in some instances, non-financial personal detriment. In some cases these estimates are supplemented with data collected from consumer complaints.

There are fewer examples of studies measuring structural or hidden detriment, which are more difficult to measure. For this reason, the CCP agreed to focus attention on developing a methodology for measuring personal financial detriment in the short term. In particular, it was suggested that the methodology focus on a consumer survey, which would identify both quantitative and qualitative aspects of consumer detriment, and consumer experience more generally. This survey would build on previous surveys undertaken across the OECD, including, in particular, the European Commission's 2017 survey, and the CCP's survey on consumer trust in peer platform markets (EC, 2017[2]; OECD, 2017[3]). Given the CCP's focus on issues in the digital economy, it was decided that the survey should focus on consumer detriment in e-commerce in the short term.

Measuring the impact of consumer agency activities

Chapter 3 looks at methodologies for measuring the impact of consumer agency actions. A number of consumer agencies already publish information on the estimated impact of their activities. However, there is little guidance on the methodologies used for this purpose. Further, estimation of the benefits is usually confined to consumer agency actions that lend themselves to measurement. For example, actions that correct a price increase or otherwise reduce the costs incurred by consumers. For this project to be progressed, work will need to be undertaken to better understand the methodologies used by relevant consumer agencies in estimating the impact of their activities. Such work could help identify whether robust but simple methodologies could be developed or whether case-by-case methodologies are required. If the latter, it may be useful to look at which types of consumer agency actions (or market conduct) lend themselves to estimation and/or measurement. In the medium term, the CCP agreed to further develop methodologies for estimating the impact of consumer agency actions, with a view to demonstrating the value of consumer agencies and to help prioritise their activities.

Measuring the impact of consumer policy

Last, Chapter 4 of the report looks at the qualitative benefits of consumer policy and potential ways to measure its impacts. In particular, consumer policy has the potential to reduce structural detriment associated with market failures such as imperfect and asymmetric information and externalities. In addition, it can reduce personal detriment by offering a host of consumer protections, which stop personal detriment from occurring in the first place, or otherwise reduce its likelihood or severity. To date, there have been few attempts to quantify the benefits of consumer policy on the macro economy. In theory, econometric modelling and simulation modelling could potentially be used to assess structural detriment. However, there are a number of potential limitations with these approaches, including a lack of relevant data, difficulties in ensuring that the models are capturing the right effects, and the technical nature of the modelling making the methodology and results less accessible to many audiences. Alternatively, work on consumer detriment could potentially be the starting point to inform estimates of impact at an economy-wide level. However, it might be difficult to ensure that such an approach is robust. For this reason, in its October 2019 meeting, the CCP did not propose any further

work on measuring the impact of consumer policy on the macro economy in the short to medium term.

1. Introduction

This chapter provides background on the project, including past CCP work on improving the evidence base, a discussion on what to measure and why, *ex ante* versus *ex post* measurement, and the project's objectives and scope.

Background

The CCP has been working on improving the evidence base for consumer policy for almost 15 years, including through:

- Roundtables on economics for consumer policy held in 2005 (OECD, 2006[4]) and 2006 (OECD, 2007[5]).

- The Consumer Policy Toolkit (OECD, 2010[6]), which provides an overview of the types of information that can inform consumer policymaking (including a discussion on consumer detriment), and features a six-step consumer policymaking process.

- A Consumer Policy Toolkit Workshop on Communication Services held in 2011 (OECD, 2013[7]).

- Reports focusing on protecting consumers in communication services (OECD, 2005[8]), and on the role of consumer complaints (OECD, 2012[9]), and consumer surveys (OECD, 2012[10]).

Calls to improve the evidence base for consumer policy were also made in the OECD *Recommendation on Consumer Policy Decision Making* (OECD, 2014[1]), and the *Recommendation on Consumer Protection in E-commerce* (OECD, 2016[11]).

What to measure?

As discussed at the roundtable, it is important to ensure that there is a clear link between what is being measured and the choice of methodology. In particular, there is no "off the shelf" approach that will work in all circumstances and settings. Hence, one of the key criteria in selecting an appropriate methodology is that it should be "fit for purpose". In addition, the methodology should ideally be relatively standardised, defensible and systematic. Given this, a key question when looking at measurement in relation to consumer policy is what are we trying to achieve with the measurement? Possible objectives include:

- To identify instances and measure the magnitude of consumer detriment across different parts of the economy so as to highlight gaps in consumer policy and enforcement. This could then be used to improve and prioritise consumer policymaking and enforcement. If this is the objective then developing methodologies for estimating consumer detriment (see Chapter 2) would be most useful.

- To demonstrate the benefit of consumer agencies. In which case, methodologies to improve the measurement of the impact of consumer agency actions would be most useful.

- To identify best practice consumer policy and to understand what consumer policies lead to the greatest consumer benefits. In this case, methodologies for measuring the impact of consumer policy would be most useful.

In determining which methodologies are appropriate, a number of factors should be considered, as highlighted in the October 2019 roundtable. These include:

- The intended audience of the results – this is relevant to the choice of methodology as less technical and complex approaches may be favourable for less technical audiences.

- The ability to identify relationships between actual/expected detriment to the cause – which is particularly important for approaches relying on econometric and simulation modelling.

- The identification of an appropriate counterfactual, which is of particular importance when considering the impact of a policy change or a consumer agency action.

- The time horizon over which to measure the impacts.

Ex ante versus *ex post* measurement

Measurement can be undertaken *ex ante* (i.e. before a policy or action is implemented or undertaken) or *ex post* (i.e. after a policy or action is implemented or undertaken).

Ex ante measurement

In the case of *ex ante* assessments, measurement could inform the making of consumer policy or the prioritisation of consumer authority actions.

Consistent with the OECD's Consumer Policy Toolkit (OECD, 2010[6]), if a government is considering whether to revise an existing consumer policy or introduce a new one, they should first look at the existing level of consumer detriment and other economic and social costs relating to the consumer issue under investigation. They should then look at what the likely costs and benefits of the change would be (alongside the costs and benefits of alternative options) to determine whether to implement it. Alternatively, (rather than looking at overall detriment) governments may wish to consider the change in consumer detriment that would likely occur from a change in consumer policy. Such assessments need to take into account the specific circumstances in which the policy or enforcement action will be implemented, including circumstances specific to the relevant jurisdiction.

In the case of consumer agency actions, estimates of consumer detriment (and other economic and social costs) associated with specific consumer problems could be used to inform the prioritisation of enforcement and other consumer agency actions (see Chapter 3). In addition, data on the costs of the various activities, and their effects on the related conduct, could be used to ensure that agencies are putting efforts into the most cost-effective areas.

In either case, developing a counterfactual for what outcomes could be expected to prevail without the policy change or intervention is a key issue. In some cases this is easier with *ex ante* assessments than with *ex post* assessments (see below). Specifically, *ex ante* assessments are likely to be easier where existing conditions can be taken as the counterfactual, and where those conditions can be easily represented with available data. However, in other circumstances, the existing conditions may not represent a realistic

counterfactual (or relevant data may not exist), and other counterfactuals may need to be developed. As noted by Ormosi (2012, p. 23[12]):

The issue of the counterfactual has both conceptual and empirical dimensions – which counterfactuals are theoretically tenable, and how do we calibrate them with plausible estimates of key parameters?

In addition, since *ex ante* assessments involve trying to predict what might occur in the future, there is likely to be some level of uncertainty, and assumptions may need to be made in respect of key parameters in order to estimate the likely benefits and costs. Such assumptions should be based on available literature and expert opinion (including agency experience) and should be transparent (and ideally, the sensitivity of assumptions should be tested and reported on). In addition, some form of risk assessment may be relevant.

Ex post measurement

In comparison, *ex post* assessments can be used to determine the impacts of existing policies or authority actions that have already been implemented. A key issue for *ex post* assessments is determining plausible counterfactuals. As noted by Hahn and Hird (1991, p. 237[13]):

Perhaps the most difficult task in estimating the impact of a regulatory change is specifying what would have happened in the absence of that change. The researcher must engage in the delicate art of constructing a "counterfactual," which describes what might have happened if the change had not occurred. By comparing the effects of the counterfactual with those of the proposed activity, it is possible to estimate the differences in costs and benefits between the real and the hypothetical states of the world.

This is likely to be particularly difficult with respect to measuring the cumulative impact of all consumer policy, as it is difficult to imagine a world without any consumer protection law. However, determining an appropriate counterfactual is likely to be easier in the case of incremental policy change or a specific consumer authority action where consumer detriment could be estimated before and after implementing the policy or action. Alternatively, it may be easier to estimate the *change* in consumer detriment (and/or benefits and costs) directly. This is discussed in more detail in Chapters 3 and 4.

Scope and objectives

The key objective of this report is to consider possible methodologies for measuring:

- consumer detriment (Chapter 2)
- the impact of consumer agency actions (Chapter 3)
- the impact of consumer policy (Chapter 4).

In addition, Chapters 3 and 4 include a qualitative discussion of the relevant benefits and costs to set up the framework for what it is that we are ultimately trying to measure.

Regarding scope, the report includes a wide range of consumer issues and potential consumer agency actions. In particular, where relevant, measurement of costs and benefits relating to product safety have been included, building on work being developed in this area by the Working Party on Consumer Product Safety (WPCPS).

2. Consumer detriment

Measuring consumer detriment is a fundamental building block for assessing the impacts of consumer policies and consumer agency actions. Indeed, Step 2 of the OECD's Consumer Policy Toolkit is to 'Measure consumer detriment'. This chapter introduces the concept of consumer detriment and discusses possible ways of measuring it.

What is consumer detriment?

According to the *OECD Recommendation on Consumer Policy Decision Making* (OECD, 2014, pp. 3-4[1]):

> *"Consumer detriment" means the harm or loss that consumers experience, when, for example, i) they are misled by unfair market practices into making purchases of goods or services that they would not have otherwise made; ii) they pay more than what they would have, had they been better informed, iii) they suffer from unfair contract terms or iv) the goods and services that they purchase do not conform to their expectations with respect to delivery or performance. This may occur, for example, when the goods or services that they have purchased do not conform to their reasonable expectations with respect to quality, performance or conditions of delivery. This also may occur if the goods or services are not provided in a timely fashion, are defective or dangerous, do not meet operational expectations or are inconsistent with information provided to the consumer prior to the transaction. Consumer detriment can take many forms: it can be structural in nature (i.e. affecting all consumers) or personal; apparent to consumers or hidden; and financial or non-financial. Consumer detriment may be apparent to consumers immediately, may take time to emerge, or remain hidden.*

While this definition is quite broad, this does not imply that all instances of consumer detriment necessarily require a policy or enforcement response. For example, consumer detriment that occurs due to an avoidable consumer mistake or misjudgement, rather than some action or inaction by a business or in the market, may not require any policy or enforcement response. Further, jurisdictions may view what constitutes actionable consumer detriment differently. When looking to measure consumer detriment, the priority should be to focus on those types of detriment that occur due to a market failure or an action or inaction by a business (or businesses), rather than on detriment associated with consumer misjudgement or regret. That is, measurement should focus on those aspects of consumer detriment that are relevant to consumer policy and/or enforcement action.

Personal detriment

Personal detriment is the negative outcomes experienced by individual consumers relative to some benchmark such as reasonable expectations (OECD, 2010[6]; Europe Economics, 2007[14]). The relevant comparison (i.e. the counterfactual) used to calculate personal detriment is "reasonable expectations". Hence, anything that falls short of what consumers reasonably expect, given the circumstances of the transaction, counts as detriment (Europe Economics, 2007[14]). Personal detriment can be financial or non-financial (see Table 2.1). Non-financial components of personal detriment tend to be more difficult to measure than financial aspects.

Table 2.1. Types of personal detriment

Financial detriment	Non-financial detriment
- inflated prices - the cost of flawed products (e.g. products that do not deliver on the expected function, or level of quality) - the cost of repairing or replacing a product - administrative and/or travel costs associated with resolving a problem (e.g. telephone costs or travel costs) - a reduction in the value of the asset (e.g. poor repairs that reduce the value of the repaired product) - cost of expert advice or assistance (e.g. legal costs) - lost earnings (e.g. due to loss of time or injury) - damage to other property	- restricted choice (which can also have financial impacts, and result in structural detriment, discussed below) - psychological detriment (e.g. stress, anger or embarrassment) - compromised personal information or privacy - time required to address problems - inconvenience - injury or adverse effect on health

Source: OECD (2010[6]).

Structural detriment

Structural detriment is the loss in consumer welfare due to market failure or regulatory failure (Europe Economics, 2007[14]). In calculating structural detriment, the relevant counterfactual is what would have happened in the absence of market or regulatory failure (Europe Economics, 2007[14]). Imperfect information, externalities, market power, sluggish innovation and regulatory failure can all lead to structural detriment (see also Chapter 4). Because of difficulties in determining the appropriate counterfactual and assessing impacts at an economy-wide level, structural detriment can be more difficult to estimate than personal detriment, as discussed in more detail below.

Hidden detriment

Consumer detriment can also be "hidden" (OECD, 2010[6]), as when a consumer has experienced detriment but is unaware that it has occurred. Examples of such situations include where a consumer has been deceived into buying an unwanted or unnecessary good or service (e.g. an unnecessary car repair) or overpaying for a product (e.g. buying a more expensive product than required). This can be a problem especially for "credence goods", for which consumers cannot determine the quality of a product even after purchase and use (OECD, 2010[6]). In addition, consumers may be unwilling to admit to having experienced detriment, even when alerted to it, as they may employ psychological defence mechanisms to rationalise their past decisions (OECD, 2010[6]).

What elements of consumer detriment can be estimated?

As discussed in Chapter 1, at least theoretically, estimates of consumer detriment could be undertaken *ex ante* to inform policymaking, to set a benchmark for later assessing policy impacts, to prioritise enforcement and other consumer agency interventions, or to inform a (later) assessment of the impact of consumer agency actions. Alternatively, consumer detriment could be estimated *ex post* to assess the impact of a policy change or a consumer agency intervention. The purpose of the measurement may be relevant to determining the appropriate methodology, especially in relation to determining the appropriate counterfactual.

In addition, different methodologies may be appropriate depending on whether the aim is to estimate total existing consumer detriment or simply a change in consumer detriment. In

particular, while personal detriment may be estimated in either case, total structural detriment (as opposed to changes in structural detriment) may be difficult to estimate given difficulties in setting an appropriate benchmark (Europe Economics, 2007[14]). When looking at the impact of specific consumer agency actions or consumer policies, either as part of an *ex ante* or *ex post* assessment, it may be sufficient to estimate the change in consumer detriment. In such cases, it may be possible to estimate both personal and structural detriment. In comparison, if estimates of consumer detriment are being used to identify problematic issues across the economy, either to inform policymaking or to prioritise enforcement and other consumer agency actions, an estimate of the existing level of consumer detriment may be more useful. In these cases, it may be more practical to concentrate on measuring personal detriment (rather than structural detriment). Further, most methodologies are unlikely to be useful in identifying hidden detriment. This is especially the case for methodologies that rely on consumer views, such as consumer complaints or consumer surveys, for example.

Possible information sources

There are already a number of information sources that can potentially inform the measurement of consumer detriment including consumer complaints; consumer surveys; consumer agency data, and; product safety data.

Consumer complaints

The OECD has previously undertaken work on the role of consumer complaints in consumer policy (OECD, 2012[9]). Consumer complaints could be a useful input to measuring consumer detriment since they *"are likely to be a reflection of a consumer's unfulfilled expectations"* (Europe Economics, 2007, p. 326[14]). However, as noted by Europe Economics (2007, p. 326[14]):

> *… 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.*

In particular, the effort required to complain, and the potential payoff from complaining, will influence a consumer's decision about whether to complain. In addition, external factors, such as an awareness raising campaign undertaken by a consumer agency, can impact the number of complaints received even where there has been no change in underlying detriment (Ormosi, 2012[12]).

There are a number of avenues through which consumers may seek redress. Most consumers will first contact the relevant retailer or manufacturer before contacting another third-party such as a regulatory body, trade association, ombudsmen, the media, a consumer organisation or a consumer affairs centre. Data from Australia suggests that as few as 4 per cent of consumers experiencing a problem contacted the relevant consumer affairs agency (Consumer Affairs Victoria, 2011[15]). Data from the latest European Union Consumer Conditions Scoreboard found that, of those consumers that encountered a problem, only 5.4 per cent complained to a public authority, 5.0 per cent to an out-of-court dispute resolution body, and only 1.9 per cent took it to court (EC, 2019[16]). Hence, any estimate of consumer detriment based on consumer complaints made to a consumer agency or other third-party organisation would need to be scaled up to reflect the fact that very few

consumers that experience consumer detriment actually contact a consumer agency. At the same time, the consumers that have gone on to contact a consumer agency may have done so because they experienced greater detriment than the average consumer. For this reason, where complaints data includes an estimate of detriment, these estimates may not reflect average levels of detriment across the economy more broadly.

Another potential limitation of complaints data is that it does not necessarily represent the experiences of all (or even average) consumers. In particular, certain demographics are likely to be overrepresented in complaints databases, including older, educated, affluent, and more urban consumers who speak the country's predominant language (OECD, 2012[9]; Raval, 2019[17]). Hence, while complaints data can be very useful to inform the understanding of consumer detriment, complaint rates may reflect differences in the incidence of consumer reporting rather than consumer victimisation. For example, data from the Consumer Sentinel Network (CSN) of the Federal Trade Commission of the United States (US FTC) suggest that certain communities of vulnerable consumers may complain less to government and other reporting agencies relative to their victimisation due to lower levels of trust or general social capital (Raval, 2019[17]). To remedy this, consumer agencies could consider using a statistical weighting approach to take into account differences in reporting in order to use complaints to evaluate victimisation.

The method for collecting complaints may also impact the representativeness of complaints data. For example, Portugal has a system whereby businesses are required to keep a complaints book in their place of business, in which consumers can write complaints. Complaints are then shared with the Consumer Directorate General within 15 days. Such a system, which makes complaining relatively easy for consumers, could potentially yield more representative data. This is likely to be especially true for businesses in which consumers are aware of whether they have experienced detriment straight away (e.g. it might be more useful in the case of a restaurant, than for a business that provides durable goods where detriment may be experienced later). Portugal is also commencing work on an electronic complaints book, which will allow for consumers to make complaints online.

There is variation in the type of complaints (and enquiries) data collected by consumer agencies in different jurisdictions. A lack of uniformity on the type of information that agencies collect makes comparisons across jurisdictions difficult (OECD, 2012[9]). Even within the European Union, attempts to harmonise and report on standardised consumer complaints data ceased in early 2019. In addition, few jurisdictions collect information on estimated detriment, or even pricing information, which would be useful data for estimating consumer detriment (OECD, 2012[9]). Hence, consumer complaints data in most jurisdictions is unlikely to be sufficient to determine either the number of consumers affected, or the likely detriment experienced. However, depending on the type of information gathered, they may be useful in identifying:

- the type of detriment that has occurred

- the types of consumers that have experienced detriment

- which sectors appear to be most problematic

- the types of transactions associated with problems

- how problems have changed over time (Europe Economics, 2007[14]).

Further, in some cases complaints data can be used as a lower-bound estimate of consumer detriment. This is particularly the case where individual experiences of financial detriment are easy to identify. One such example is for scams, where it is relatively easy for a

consumer to identify what the direct financial detriment resulting from the scam was. The Australian Competition and Consumer Commission (ACCC) publishes an annual report on scams, which includes a lower-bound estimate of the amount of money lost to scams each year, totalling $489.7 million AUD in 2018 (ACCC, 2019[18]). This estimate is derived from complaints made to the ACCC and other relevant consumer agencies across Australia. While the estimate likely understates the impact of scams, it does at least provide an order of magnitude, which can highlight the importance of initiatives to address scams. It also provides information on the types of scams and frauds that are being reported.

Similarly, the US FTC collects information on financial loss in its complaints database as an optional field in the online complaint assistant, and it reports on aggregate financial losses in its annual Consumer Sentinel Network Data Book (US FTC, 2019[19]). Although such estimates do not reflect total detriment, it does provide a lower bound estimate. For example, in 2018, people reported losing nearly USD $1.48 billion to fraud, with a median loss (for all fraud reported) of USD $375 (US FTC, 2019[19]). Between 2014 and 2018, consumers in the United States filed complaints with the US FTC's CSN, reporting over USD $6.25 billion lost to consumer fraud. The CSN Data Book also provides data on the types of scams encountered, average amounts lost, and incidence of fraud, including as experienced by different socio-economic groups (e.g. older consumers versus younger consumers).

Consumer surveys

Data from consumer surveys may also be useful in estimating consumer detriment. Consumer surveys can include surveys on consumer views, experiences (including detriment), behaviours, awareness and competencies (OECD, 2012[10]). While these four categories of surveys represent slightly different focuses, they may in some cases overlap. The first three of these categories of survey are likely to be relevant to estimating consumer detriment and are discussed below. Consumer awareness and competencies are less relevant to consumer detriment but may be relevant to measuring the impact of consumer agency actions (see Chapter 3).

Consumer views surveys

Consumer views surveys are used to solicit consumer views on market conditions generally, or on specific consumer issues. Countries have used these surveys to improve understanding of consumer satisfaction in the market generally, or in specific markets, and to screen markets. General market condition surveys have been undertaken in Denmark, the European Union, Japan and the United Kingdom (OECD, 2012[10]). In particular, every second year (since 2008), the EC has produced a consumer conditions scoreboard which is based on surveys of consumers' and retailers' attitudes towards cross-border trade and consumer protection (EC, n.d.[20]). The Australian Government also undertook consumer views surveys before and after the implementation of changes to the Australian Consumer Law (The Australian Government the Treasury and EY Sweeney, 2016[21]). Among other things, the survey considered consumer confidence with regards to being treated fairly in the market and being supplied safe and reliable goods and services.

In addition, market-specific surveys have been undertaken in Australia (on the value of cooling-off periods, opinions on warranties, and factors influencing consumer complaints), the European Union (on cross-border shopping), and in the United Kingdom (on broadband uptake). Further, for the 2017 G20 Consumer Summit, the German Federation of Consumer Organisations (vzbv) commissioned a feasibility study on "*Indicators of consumer*

protection and empowerment in the digital world" (Thorun et al., 2017[22]). A number of the suggested indicators were to be based on a consumer survey which asked participants to rate their agreement with a number of statements. Such indicators could potentially be useful to corroborate other information used in relation to consumer detriment, including to inform the measurement of more subjective issues, such as consumer trust.

Consumer views surveys can also be used to inform non-market valuations, such as willingness to pay. In these cases, consumers are asked how much they would be willing to pay to receive something (e.g. a longer warranty period), or to avoid something (e.g. spam). This approach was applied by the United Kingdom's Ofcom in estimating the detriment from silent and abandoned calls, where survey participants were asked how much they would be willing to pay to avoid these types of calls (see Annexes 7 and 8 of Ofcom (2016[23])). More broadly, there are a range of non-market valuation methodologies available, which could potentially be used to inform estimates of consumer detriment.

Consumer experience surveys (including consumer detriment surveys)

Consumer experience surveys gather information on the actual experiences of consumers in markets, including where consumers have been misled, unfairly treated or affected by deficient goods and services (OECD, 2012[10]). These types of surveys have been undertaken in Australia on unsafe products and across a range of consumer issues in 24 selected markets. In addition, surveys on consumer scams and fraud have been undertaken in Canada, Japan, the United Kingdom and the United States (OECD, 2012[10]; Anderson, 2019[24]). The OECD has also undertaken a consumer survey on trust in peer platform markets (OECD, 2017[3]). This was done by focussing on the experiences of consumers in specific peer platform market transactions.

In addition, every alternative year (since 2012; from 2008-12 it was every year), the European Commission undertakes a markets monitoring scoreboard which tracks performance in over 40 markets. It does so by asking consumers about their recent purchasing experiences to understand: whether they trust sellers to respect consumer protection rules; the comparability of offers; choice available in the market; fulfilment of consumer expectations; and detriment caused by problems (EC, n.d.[20]).

Consumer experience surveys can also focus on estimating consumer detriment – so-called "consumer detriment surveys". Such surveys are designed to estimate the magnitude and scope of consumer detriment, either within a specific market or across the economy more broadly. As outlined in Table 2.2, a number of consumer detriment surveys have been undertaken across the OECD, including in Australia, the European Union, Ireland, Japan, the Netherlands, and the United Kingdom (including by Citizen's Advice). There is variability in the methodologies used, including in respect of the number of participants surveyed, how detriment is estimated, survey coverage (i.e. the whole economy or just specific markets) and resulting estimates. In the case of Japan, for example, an annual survey of 10 000 consumers is used to estimate the incidence of detriment. Complaints data, which captures estimates of detriment, is then used to determine the average magnitude of detriment. The incidence of detriment is then multiplied by the average magnitude of detriment to estimate overall detriment in Japan. There are also surveys (not included in Table 2.2) that only estimate the incidence of detriment. For example, results from the 2018 Canadian Internet Use Survey, found that 55% of online shoppers encountered some sort of problem after completing an online order (Statistics Canada, 2019[25]).

A number of jurisdictions have undertaken surveys to evaluate the impact of specific forms of conduct, such as scams and fraud. For example, the US FTC's Economics Bureau recently released its fourth report on mass-market consumer fraud in the US that was based on a 2017 survey (surveys were also undertaken in 2004, 2007 and 2013) (Anderson, 2019[24]). Among other things, these surveys look at how various consumer characteristics, including demographics, relate to the likelihood of victimisation by the surveyed frauds. The surveys also seek information about how such transactions occur, including: how sellers first contact victims; how victims enter into these transactions, and; how victims pay. The most recent survey estimated that there were 61.8 million incidents of fraud in the United States in 2017, affecting 40 million adult consumers, with a median loss of USD$100 (see also Table 2.2). Another survey was undertaken to look at the impact of fraud interventions. The survey of 1 408 Americans and Canadians showed that 20 per cent of consumers that engaged with a scam said that a third-party tried to intervene to stop the scam. Further, about half of those who reported a third-party intervention were able to avoid losing money (Deliema et al., 2019[26]).

Table 2.2. Consumer detriment surveys

Organisation	Year	Methodology and scope	Participants	Estimated detriment	% of GDP
Consumer Affairs Victoria, Australia	2006	– Telephone interviews with a follow-up telephone interview for those consumers that had experienced detriment on more than two occasions	1 000	AUD$3.15 billion	1.5%
Consumer Authority, Netherlands	2008	– Survey to assess the nature and extent of Unfair Commercial Practices experienced by Dutch consumers	70 000	€579 million	0.09%
(Former) Office of Fair Trading (OFT), United Kingdom	2008	– Face-to-face interviews – Follow-on interviews – Estimate of personal financial loss	10 022 982	£6.6 billion	0.37%
Department for Business Innovation and Skills, United Kingdom	2014	– Face-to-face computer assisted interviews – Six major product and service categories	4 127	£4.15 billion	0.22%
US FTC	2011	– Telephone interviews – Focused on the incidence of fraud	3 638	37.8 million incidents	n/a
Competition and Consumer Protection Commission, Ireland	2014	– Survey	2 504	€5.0 million	0.02%
Australian Treasury	2016	– Online (4 348) and telephone (1 060) surveys	5 408	AUD $16.31 billion	0.93%
Citizens Advice, United Kingdom	2016	– Face-to-face and online interviews – Detriment estimated as direct monetary costs (payments) and time loss, minus compensation payments obtained in light of consumer claims.	4 200	£23 billion	1.17%
European Commission	2017	– Online and face-to-face surveys conducted in France, Italy, Poland and the United Kingdom – Post-redress financial detriment and monetised time loss in six selected markets	16 000 (2 000 per survey)	€20.3 billion to €58.4 billion	0.13% to 0.38%
US FTC	2017	– Telephone interviews (mobile and landline) in English and Spanish – Focused on the incidence of 21 types of mass-market consumer fraud – Update to the 2011 survey	3 717	61.8 million incidents; 40 million adult consumers; median loss of US$100	n/a
Consumer Affairs Agency, Japan	2018	– Annual survey, which is used to determine the incidence of detriment, is combined with complaints data on the average level of detriment	10 000	¥4.9 trillion	0.9%

Sources: Consumer Affairs Victoria (2006[27]); Ipsos (2006[28]); Consumer Authority (2008[29]); Office of Fair Trading (2008[30]); Department for Business Innovation and Skills (2014[31]); US FTC (2013[32]); Competition and Consumer Protection Commission (2014[33]); The Australian Government the Treasury and EY Sweeney (2016[21]); Citizens Advice (2016[34]); EC (2017[2]); Consumer Affairs Agency (2018[35]); Anderson (2019[24]);.

Methodological considerations associated with consumer detriment surveys are discussed in Section 2.3. While consumer surveys are particularly useful for estimating the incidence of detriment and for gathering qualitative information about the consumer issue experienced, any quantification of consumer detriment based on consumer surveys is inherently subjective.

Consumer behaviour surveys and behavioural experiments

Consumer behaviour surveys include questions to better understand the factors that affect consumer decision making. These types of surveys, which have been undertaken in Australia and the European Union (OECD, 2012[10]), may be useful in understanding the impacts of behavioural biases on consumer decision making, and the likelihood of consumers experiencing detriment associated with behavioural biases.

In some circumstances, behavioural experiments can shed light on the likely impact of particular forms of business conduct, where these prey on behavioural biases. A number of experiments and studies have investigated the impact of a range of pricing practices including drip pricing, time limited offers, bait pricing and reference pricing (Ahmetoglu, Furnham and Fagan, 2014[36]; Ahmetoglu et al., 2010[37]; Laibson, 2012[38]; Office of Fair Trading (UK), 2010[39]). An experiment commissioned by the OFT, in particular, included estimates of the welfare impact of each of these practices (OFT, 2010[40]). In addition, the CCP is currently looking at the impact of online disclosures about personalised pricing on consumer decision making. The European Commission has also undertaken work on the impact of disclosure in relation to online personalised pricing and offers (EC, 2018[41]).

There is also potential for behavioural experiments to inform our understanding of hidden detriment. For example, hidden detriment could potentially occur where consumers agree to problematic terms and conditions, perhaps because they did not read them or did not understand them. Conducting systematic experiments, ideally with actual purchases based on randomly selected traders' terms and conditions, could help get a sense of how many disadvantageous terms and conditions consumers are unknowingly signed up to. Ideally, such an experiment would also identify whether consumers actually suffered detriment as a result of the terms and conditions, as opposed to being put theoretically in a disadvantageous position. For example, a paid subscription trap is likely to cause detriment whereas a contract that limited a seller's legal liability in a way that violated unfair contract terms legislation may or may not cause consumer detriment. Such an experiment would clearly require further consideration but could potentially be a useful method for better understanding hidden detriment.

To the extent that such studies quantify the impact on consumers, they may inform estimates of consumer detriment associated with these types of conduct, or changes in consumer detriment as a result of consumer policy (e.g. disclosure). However, these studies are not always reliable across time and between jurisdictions and the results are not always able to be generalised (OECD, 2017[42]). In addition, these experiments can be costly and time consuming, which makes them less likely to be used routinely by consumer agencies.

Consumer agency data

When consumer agencies undertake an investigation, they tend to gather a range of information that may be useful in estimating consumer detriment. For example, they may be able to gather information from businesses about consumer complaints and the outcomes of such complaints, and most businesses are likely to have detailed pricing information. Such information could potentially be useful if it can be used for this purpose (i.e. if there are not legal limitations on the use of the information) and to the extent that any commercially sensitive information is protected. In relation to specific cases, and consumer agency actions (discussed in more detail in Chapter 3), consumer agencies may have information that can be used to estimate consumer detriment more directly (especially where these involve a price impact).

Product safety data

There are a number of data collected by agencies and the OECD on product safety, including the following information sources:

- Data from the OECD *GlobalRecalls* portal, which contains more than 24000 product recall notices from 46 jurisdictions (OECD, n.d.[43]). Data on the number

of recalls per year and in particular product categories, for example, may help to measure the extent of consumer harm in relation to product safety.

- Similarly, the Safety Gate rapid alert system of the European Union enables quick exchange of information between EU/EEA member states and the European Commission about dangerous non-food products posing a risk to health and safety of consumers, and may have relevant data (EC, n.d.[44]).

- OECD global awareness campaign results: Every year, the WPCPS organises a global awareness campaign on a key product safety issue. After the event, jurisdictions report on their activities and the number of consumers reached. Consumer reach may be indicative of consumer awareness, leading to more informed decision-making by consumers, and a reduced risk of consumer harm.

- The 2015 OECD product safety e-commerce sweep involving 25 jurisdictions revealed that of the 685 banned and recalled products inspected, 68% were available via e-commerce. If such data were collected over time, this could be indicative of trends in potential consumer detriment.

- Injury and consumer complaint data: Some consumer product safety authorities collect and analyse injury and consumer complaint data. Many authorities also have a mechanism for consumers to report a safety issue with a product. While this data may not be comparable across jurisdictions, it can provide valuable insights on consumer detriment. For example, an overall decrease in consumer complaints or in the number of injuries may be indicative of improved consumer product safety.

- Cost of injury and death: Some jurisdictions, such as the United States and Australia, have developed methodologies to measure the annual societal cost of injury and death caused by unsafe consumer products. If such data were collected over time, it could highlight trends in consumer detriment. For example, a reduction in this cost could be a key indicator of a reduction in consumer harm.

- Data from online consumer reviews: Consumers can potentially use online reviews to share concerns about product safety, including injuries (Kumara Bhat and Culotta, 2017[45]). Data over time could potentially help prioritise enforcement and education and awareness campaigns. Some consumer product safety authorities have developed partnerships with online platforms to detect and remove unsafe products from the platforms (OECD, 2018[46]).

Other data

An alternative approach for prioritising consumer policymaking and enforcement, in the absence of information on consumer detriment, would be to look at national statistical expenditure data to identify areas of the economy in which consumers spend most of their income. In addition, one could consider expenditure by income to identify areas of the economy in which low income consumers are more likely to be vulnerable, to the extent that there is poor conduct in these markets. This was the approach taken by Israel's Consumer Protection and Fair Trade Authority. In particular, it decided to focus its annual work plan in the area of retail sales of grocery products to consumers given the high level of relative expenditure in this area of the economy, especially as a share of income for less wealthy consumers (see Box 3.2). Such approaches are evident in other jurisdictions where grocery and fuel markets are often the subject of market studies or enforcement priority.

Measuring consumer detriment

In assessing the various methodologies for estimating consumer detriment, Europe Economics (2007[14]) considered a wide range of options both in terms of methodology and information sources. Options considered included consumer complaints data, consumer surveys, word-of-mouth, mystery shopping, methods and models associated with measuring market power, simulation models, game theoretic models, sectoral macro models, computable general equilibrium (CGE) models, benchmarking, legal precedents and expert opinion.

In assessing these alternative methodologies, Europe Economics (2007[14]) considered whether each was:

- Conceptually robust: does the methodology measure the right thing?

- Measurable in practice: are the data likely to be obtainable in practice?

- Simple to apply: would non-specialist desk officers 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 multiple situations and purposes?

- Repeatable: can the methodology be repeated in new situations, or is it reliant on one-off data from the past?

Having considered the alternatives against the criteria, Europe Economics decided that consumer surveys were the most appropriate methodology for estimating consumer detriment. Consumer surveys indeed have the advantage that they can provide a rich understanding of an in issue by combining quantitative and qualitative questions. In addition, they can be relatively straightforward to use and they offer a particular advantage where there is limited existing data (or access to data). However, there are a number of potential limitations. In particular, Europe Economics (2007[14]) noted that consumer surveys can be time consuming, costly, and subjective. Further, consumer surveys, while effective for estimating personal detriment, are not well-suited to estimating structural detriment or hidden detriment (Europe Economics, 2007[14]). Other options for measuring structural detriment are discussed in Chapter 4.

Methodological considerations for consumer detriment surveys

In recommending that consumer surveys be used to estimate consumer detriment, Europe Economics (2007[14]) reviewed a consumer detriment survey undertaken by the OFT in 1999 and a survey on the impact of scams and fraud undertaken by the US FTC. These surveys highlighted a number of methodological limitations and lessons for future surveys, as discussed below.

Ensuring estimates are representative

One key limitation of the surveys studied by Europe Economics was that a small number of high estimates had a big impact on the overall level of detriment (Europe Economics,

2007[14]). Further, some categories of detriment were encountered infrequently, with a lot of variability around the level of detriment. This meant that overall detriment could not be estimated with a high degree of confidence, suggesting that, if the survey were carried out at different times, differences in consumer detriment could be due to differences in sampling rather than actual differences. In addition, given the high margins of error, estimates of detriment for individual types of goods and services would not be meaningful. As a consequence, these surveys could not allow for time-series or cross-sectional analysis with any degree of certainty.

There are a number of ways to address this issue (Europe Economics, 2007[14]). One way is to increase the sample size. However, the OFT (2000[47]) estimated that a sample size of around 100,000 consumers would be required, at an estimated cost of 3 million GBP per annum. Another way is to include a split sample whereby respondents would be asked questions about either a random issue, or the worst issue they had experienced to shed more light on those experiences that had the most impact on consumers. Yet another option is to undertake a wide sample to gather data on the overall characteristics of consumer problems, use the survey to identify respondents that have experienced large financial detriment, and then survey these people in more detail (Europe Economics called this the "omnibus filter"). The subsequent survey undertaken by the OFT in 2008 (see Table 2.2) used this omnibus approach to estimate consumer detriment at the sectoral level (Office of Fair Trading, 2008[30]), as did the 2017 survey undertaken by the EC (EC, 2017[2]). Such approaches are particularly useful for estimating the prevalence of consumer issues and to gather qualitative details associated with consumer detriment.

To ensure that adequate sample sizes are used in respect of specific markets, the European Commission (2017[48]) suggests looking at both the incidence of problems incurred in the market, as well as the market penetration rate. This can be done by looking at past surveys on consumer detriment, for example. In some cases, this analysis will identify that a particular market (or issue) is not well-suited to analysis through a survey due to a very low incidence of problems or the small size of the market. To the extent that there is particular interest in the experiences of a subset of consumers, such as a specific vulnerable consumer group, an economy-wide survey may also not be fit-for-purpose. In such cases, targeted focus groups or mystery shopping (discussed in more detail below) may be more appropriate to the extent that a problem has been identified (for example, through consumer complaints).

Mode of survey

There are a number of options available for the mode of survey, including face-to-face surveys, online surveys and telephone surveys. These various modes have advantages and potential disadvantages (see Table 2.3).

Table 2.3. Survey modes

Mode	Advantages	Disadvantages
Face-to-face surveys	- Can be designed so as to be representative of the entire population - Considered to be the most robust approach - Interviewer can verify answers	- Presence of the interviewer can result in less accurate or less detailed responses in some circumstances - Consumers may be more likely to decline these types of interviews - Highest cost
Online surveys	- Provides anonymity - Allows respondents to go at their own pace - Lowest cost	- No ability to ensure respondents have considered questions - More prone to self-selection biases (if they self-select) - Not necessarily representative of the broader population
Telephone surveys	- Can be designed so as to be representative of the entire population - Interviewer can verify answers	- Presence of the interviewer can result in less accurate or less detailed responses in some circumstances - Consumers may be more likely to decline these types of interviews - Second most costly approach - Less well-suited to longer surveys

Sources: Europe Economics (2007[14]); European Commission (2017[48]).

In its 2007 report, Europe Economics recommended undertaking face-to-face surveys (Europe Economics, 2007[14]). It considered that telephone interviews were not suited to such a long survey and that online surveys would not be representative of the general population. However, it may be that different modes are appropriate for different purposes, or there may be benefit in using multiple modes. As noted by the European Commission (2017, p. 13[48]), while face-to-face surveys are the:

> *... gold standard in market research ... potential biases in all modes do not make it possible to state definitively and for all situations the degree to which results obtained in one mode are more accurate than results obtained in another.*

For this reason, the European Commission (2017[2]) used both an online panel and face-to-face interviews for its most recent survey on consumer detriment.

Survey questions

Europe Economics (2007[14]) provided some general guidance on consumer detriment surveys, including that: questions should be clear; the order should be considered; answers to multiple choice questions should be complete; estimates should be verified; and a pilot should be undertaken.

An overview of the latest consumer detriment survey undertaken by the European Commission (2017[2]) is provided in Figure 2.1. Survey questions are listed in full in Annexes III.A and III.B to the EC's study (EC, 2017[48]).

Figure 2.1. Overview of consumer detriment survey

Survey undertaken by the European Commission in 2017

Initial sociodemographic questions
- Asked to whole sample
- Provide contextual information on the respondent (age, region, gender)

Screener
- Asked to whole sample
- Determines whether respondent experienced problem(s) in the sample markets, and thereby establishes *incidence* of detriment across the sample markets
- Determines in which market respondent experienced most serious problem, to be explored in market module

Market module no.1
- Asked to sub-sample experiencing problems
- Focuses on most serious problem
- Establishes magnitude of detriment for market in question, in terms of financial detriment, time loss and psychological detriment
- Provides contextual information on the detriment

Market module no.2
- Asked to sub-sample experiencing problems
- Focuses on second most serious problem, if applicable
- Contributes to establishing magnitude of detriment and providing related contextual information

Final socio-demographic/control questions
- Can be asked either to the whole sample or only to those who experienced problems, depending on needs
- Provide contextual information on the respondent (such as education level, financial situation, and expectations concerning goods and services)

Source: European Commission (2017[48]).

In relation to the types of problems experienced (included in the screener questions), respondents to the EC's survey were prompted with the following list of potential problems: faulty goods or services; late or no delivery; billing issues; poor customer service; misleading information or advertising; guarantee or warranty not honoured; no or inadequate compensation offered when something went wrong; problems cancelling a contract (EC, 2017[48]).

In the market module section, relevant participants recalled the worst (and then the second worst) problems they encountered and were asked to provide information on: the

good/service; the problem encountered; actions taken by the consumer or reasons for not taking action; the impact on the consumer (including time loss, psychological detriment and money spent trying to sort out the problem), and; actions taken by the trader, including any reimbursement or compensation (EC, 2017[48]). The survey contained many questions to get at these issues. Some questions were tailored to the specific product/service and the type of problem experienced by the respondent. Markets covered included mobile telephone services; electricity services; loans and credit (not including mortgages) and credit cards; large household appliances; train services; clothing, footwear and bags; and other goods or services.

Last, socio-demographic questions were included to provide context and to allow for analysis of detriment along socio-demographic characteristics. As noted at the CCP's October 2019 roundtable on measurement, including these types of questions allows for an analysis of detriment to be undertaken between socio-demographic groups. For example, to understand the impacts on more vulnerable consumers, such as those on lower incomes, those in financial difficulty, less educated consumers, and younger and older consumers. Qualitative questions on barriers to consumers seeking and obtaining appropriate redress could also be useful.

Estimating the incidence and magnitude of detriment

Consistent with the EC's approach in 2017, consumer detriment surveys can be used to estimate both the incidence and magnitude of consumer detriment.

The incidence of personal consumer detriment refers to the number of consumers that have experienced a problem, as a percentage of total consumers. This can be estimated by looking at the number of survey respondents that reported having experienced a problem, as a percentage of the total sample surveyed (EC, 2017[48]). Where sample sizes, market data and survey questions permit, the incidence of detriment can be calculated across sectors, industries or markets, as well as across the different categories of problems encountered.

The calculation of the magnitude of detriment will depend somewhat on the survey questions. However, the first step is usually to calculate detriment for each respondent that experienced a problem. In undertaking this calculation, the European Commission (2017[48]) started by calculating each respondent's pre-redress financial detriment, which was the sum of:

- any reduction in value or loss of service relating to loss in usability of a good or service, as a result of the problem

- any overcharge, extra charges or hidden fees

- any costs incurred by the consumer trying to sort out the problem.

It then calculated the value of any substantial redress, which was the sum of any monetary redress and the value of any repairs or replacement by the trader. Post-redress financial detriment was then calculated by subtracting the substantial redress from the pre-redress financial detriment.

In addition, the European Commission (2017[48]) estimated the cost of time losses by deriving a population-weighted mean hourly earnings rate for the European Union using country-specific mean hourly earnings from Eurostat. The calculation yields a population-weighted mean hourly earnings rate for the European Union of EUR 13.40. This approach differed from that taken by Ipsos for Consumer Affairs Victoria, which instead

based time cost on the individual's stated pre-tax income (Ipsos, 2006[28]). Where income was not provided, income was estimated based on the individual's employment status using data from the Australian Bureau of Statistics (Ipsos, 2006, p. 9[28]).

An estimate of financial detriment at the country level was calculated by multiplying average financial detriment per capita, by the population. Average financial detriment per capita was calculated by multiplying average financial detriment per problem, by the incidence of problems in each market. The same approach was applied to time loss.

Last, the European Commission (2017[48]) extrapolated the results to estimate detriment at the European Union level. It did so using data from its market monitoring survey on the incidence of problems at the country level, and pricing data. Both data sources were population weighted.

Non-survey based methods for evaluating consumer detriment

In addition to consumer detriment surveys, there have been some attempts to estimate consumer detriment associated with specific consumer issues through more direct means. In some cases, this has been done as part of estimating the impact consumer agency actions (see Section 3.3). Other examples include:

- Work by the Economics Bureau of the US FTC on the consumer detriment associated with deceptive claims made by the Volkswagen Group of America (VW) regarding its supposedly "clean diesel" VWs and Audis, which had actually been fitted with emissions defeat devices to mask high emissions during government tests (Carlson et al., 2017[49]). To remedy the deceptive claim, consumers could participate in a buy back scheme or have their vehicle repaired or modified to comply with the claim. The counterfactual in this case was that consumers would have bought a different vehicle, and the detriment was identified as i) the price premium for the clean emissions claims; ii) the lost opportunity to avoid creating excess emissions iii) for consumers who accessed a repair or modification, any loss in performance or resale value, and; iv) any associated transaction costs. US FTC staff developed a simple conceptual model to ensure that the remedies offered would at least compensate for the consumer detriment experienced.

- Development of a model by the US FTC's Economics Bureau to identify content providers who are more likely to be engaging in "cramming", which is the fraudulent practice of charging consumers for text messages that the did not authorise (Balan et al., 2015[50]). Focussing on refund rate as a measure of revenue, it used a non-parametric finite mixture model to sort content providers into groups depending on their likelihood of being crammers.

- Work on estimating the impact of drip pricing, as noted in the previous section on consumer behaviour surveys and behavioural experiments. In addition, an US FTC conference on drip pricing in 2012 brought together a number of examples of attempts to understand the impacts of drip pricing (Shelanski et al., 2012[51]).

- Complaints data could also be used to inform detriment estimates in specific cases. This has for example been the case in Portugal in 2017, where complainants provided information on price increases imposed by four telecommunications operators without warning or the ability for consumers to terminate their contracts. In this example, the stated price increases, multiplied by the number of effected consumers, could be used as an estimate of personal financial detriment.

Triangulation of estimates

Triangulation, which involves using two or more sources of data or research methodologies to validate and verify results, may be a useful exercise to undertake with any resulting estimates of consumer detriment. As noted in the European Commission Better Regulation Toolbox (Tool #4) *"the application and combination of several research methodologies in the study of the same phenomenon ... enhances confidence in results if different methods lead to the same result"* (EC, n.d., p. 20[52]).

In relation to the verification of results from a consumer detriment survey, the European Commission (2017[48]) suggested the following sources for triangulation:

- literature review of previous surveys and reports

- data on consumer complaints (discussed above)

- interviews with experts, consumer organisations and complaint handling bodies

- mystery shopping, which involves the collection of information by field workers posing as shoppers (see the Consumer Policy Toolkit (OECD, 2010[6]) for some examples of mystery shopping)

- court awards for cases of harm or injury, in cases where the measurement of detriment from adverse effects on health is included in the assessment.

As noted at the CCP's roundtable in October 2019, qualitative and case study approaches can be useful for developing a granular understanding of why, how, and under what conditions consumer policies, programs and specific actions succeed or fail. In particular, such approaches, which could include focus groups, consumer diaries, in-depth interviews, observation or qualitative surveys, can complement more quantitative approaches. However, such approaches cannot be relied upon in isolation since they: cannot always be used to infer causality; can be difficult to "scale up" the results to draw general conclusions, and; are not always easy to replicate and verify.

Conclusions

There are a number of examples of surveys being used to estimate both the incidence and magnitude of consumer (personal) detriment. While such approaches can be somewhat subjective, the results can be useful for identifying areas in which consumers are suffering from detriment, and the types of consumers that are most at risk. Such information can be useful in prioritising consumer policy making or review, as well as the actions of consumer agencies, be it greater enforcement or consumer education. Further, given that surveys can also be used to elicit qualitative information, they can also help to identify barriers to effective redress that consumers face when they encounter a problem, as well as providing qualitative information about the types of problems being experienced and the consumer and business roles and responsibilities in relation to this. For this reason, while potentially more expensive than some other methodologies, consumer surveys offer a good opportunity for consumer authorities and policymakers to get a better understanding of (personal) consumer detriment. Other sources of information, such as complaints data, may also be useful in certain contexts.

3. Consumer agency actions

Measuring the impact of consumer agency actions could be used to demonstrate the value of consumer agencies. In particular, it could be used to justify expenditure on consumer protection given its value for money/return on investment. It may also be a requirement from government to ensure accountability (Ormosi, 2012[12]). While this type of measurement may not be well suited to cross-country comparison, it could be used to highlight trends over time and to prioritise the work of consumer agencies.

At least four consumer agencies have experience in measuring the impact of their enforcement actions. These are the United Kingdom's Competition and Markets Authority (CMA), the US FTC, the Authority for Consumers & Markets (ACM) in the Netherlands, and the Competition and Consumer Commission of Singapore (CCCS). In addition, a number of competition agencies undertake these types of assessments in respect of their competition functions, consistent with the OECD's *Guide for helping competition authorities assess the expected impact of their activities* (OECD, 2014[53]).

This chapter explores the types of actions that consumer authorities can undertake and possible ways to measure their impact, drawing on the methodologies followed by the CMA, the US FTC, the ACM, and the CCCS.

Policy tools

There are a range of tools available to consumer agencies in enforcing consumer policy (OECD, 2010[6]). Tools can be categorised as demand-side or supply-side: demand-side tools work on the consumer side of the market whereas supply-side tools work on the business/supplier side of the market. The feasibility of measuring the effect of these different tools is discussed in more detail below. In addition to the policy tools available to consumer agencies, consumers may also seek redress by contacting a business directly, or by taking private action against a business.

Demand-side tools

Demand-side tools include consumer education and awareness, information provision and disclosure, and dispute resolution. Consumer education and awareness, as well as information provision and disclosure, aim to empower consumers, which can lead to more effective markets, thus addressing structural detriment. On the other hand, dispute resolution is more directly aimed at ensuring that consumers that have experienced detriment have processes available by which they can seek redress, thus addressing personal detriment.

Awareness campaigns tend to be short-term media-oriented actions that focus on a specific issue (OECD, 2010[6]). The benefit of awareness campaigns is that they can be targeted at a specific consumer response (for example, to encourage consumers to compare energy offers), making them potentially able to be measured in terms of outcomes. For example, the effectiveness of an awareness campaign encouraging the return of a product recall could theoretically be tested by monitoring the number of returns made before and after the campaign. As long as a metric can be used as a proxy for the intended outcome, there is the potential to measure the benefit of an awareness campaign by looking at the metric both

before and after the campaign. However, it may still be difficult to translate these types of metrics to a measure of consumer detriment or another type of financial benefit or cost.

Education initiatives tend to be more long-term in approach, making it difficult to evaluate their impacts, especially in relation to consumer competencies and outcomes (OECD, 2010[6]). Surveys which test consumer competencies could potentially be informative but linking this to a change in consumer outcomes (or detriment) is likely to be difficult.

In relation to information disclosure, while businesses in many jurisdictions have information disclosure responsibilities and requirements (see Chapter 4), there may also be cases where there is a role for the government in providing information to consumers. For example, government provision of information may be beneficial where there are insufficient incentives for the market to provide unbiased information. For this reason, there are a number of government-run comparison tools across the OECD (OECD, 2010[6]). Such tools may save consumers money by identifying products or service plans that better suit a consumer's needs at lesser cost. Such consumer benefits may be relatively easy to measure to the extent that the tool collects information on a consumer's current plan and the plan that they are switching to.

Dispute resolution can be facilitated by the business itself, or through a third-party, such as an ombudsman, civil society organisation or consumer protection agency. In addition, consumers may seek resolution through private or collective actions. Given these options, consumer agencies may wish to consider which types of consumer issues are best dealt with through agency initiated actions as compared to consumer-initiated actions.

Supply-side tools

Supply-side tools include moral suasion, codes of conduct, standards, prohibitions and enforcement.

Moral suasion can be used by governments seeking to influence or pressure firms into meeting a particular objective involving consumers without directly regulating the firms (OECD, 2010[6]). This could be achieved by promoting corporate responsibility, recognising consumer-friendly initiatives (e.g. through awards), criticising firms that have a bad consumer record, or threatening firms with regulation. Codes of conduct, trust marks and standards can also improve consumer outcomes, either by lifting the standard of quality in respect of a particular issue (or issues), clarifying processes, or (on the demand-side) improving consumer understanding and trust. Similarly, prohibitions can help to protect consumers by ensuring that particularly detrimental forms of conduct are illegal.

Supply-side measures may also address ways in which businesses resolve issues directly with consumers. For example, by requiring a business or industry to put in place systems for alternative dispute resolution and/or online dispute resolution (with and without mediation).

The effectiveness of supply-side measures can potentially be estimated by measuring the extent of a consumer problem before or after a consumer agency takes a supply side intervention. How easy this is and the level of confidence around the results would depend on the specific form of intervention applied.

Enforcement measures

Enforcement measures include persuasion, warning letters, civil penalties (and monetary restitution), cease and-desist orders, bans, licence suspension and licence revocation, and

criminal sanctions (OECD, 2010[6]). Enforcement actions can be informed by consumer complaints, market monitoring, and other coordinated approaches to gathering relevant information, including through Internet "sweeps". Such sweeps involve undertaking a set of predefined checks on a specific category of websites at a particular point in time to identify breaches of consumer law. In general, the results of the sweep will be used to inform further enforcement action. These types of sweeps have been undertaken across the European Union each year since 2007 (EC, n.d.[54]).

Enforcement actions tend to involve a specific issue or form of conduct that the consumer agency is trying to address. For these reasons, the impacts of enforcement actions may be easier to measure (at least in some way) as compared with some of the other types of actions that can be undertaken by consumer agencies. In particular, if the scope of the problem had been measured in some way prior to enforcement occurring, then this could also be measured after the enforcement action to see what effect the enforcement action had. Alternatively, some estimate of average consumer detriment could be calculated and applied to the estimated number of affected consumers. However, in practice, such measurement is still likely to be difficult, as will be discussed below in the examples from the relevant consumer agencies.

Product safety tools

New digital tools that enable authorities to detect and deter issues with consumer products at an early point are also available, such as domestic recall databases in a number of countries, and the OECD *GlobalRecalls* portal. In addition to these informational tools, authorities also have at their disposal a range of regulatory and corrective action tools, including:

- information orders
- product safety alerts and warnings for consumers
- interim and permanent bans (i.e. prohibition to supply a specific product that is deemed unsafe)
- mandatory regulations that specify key safety requirements
- orders to change a product to make it safe
- orders to seize unsafe products
- product withdrawal
- product recalls.

Use of the above tools is subject to an authority's risk assessment of a product safety issue, which combines the probability of a product safety incident occurring and the severity of harm if such an incident is to occur (OECD, 2013[55]). The impact of such tools may be measured by the number of times they are utilised by an authority and the level of risk of consumer harm that is being mitigated by the tool each time it is implemented, for example.

Possible information sources

Relevant estimates of consumer detriment are likely to be useful to estimating the impact of consumer agency actions. Hence, consumer surveys and complaints data (discussed in Chapter 2) remain relevant. In addition, information on consumer awareness and

competencies may be relevant. Such information could come from targeted consumer awareness and competencies surveys, or from tracking the impact of awareness raising in other ways (see below). Further, agency information on resources devoted to specific actions, and detailed case-specific information, are likely to be particularly useful sources of information.

Consumer awareness and competencies surveys

Consumer awareness and competencies surveys are used to evaluate consumers' knowledge about key issues, and their ability to address the challenges that arise. These types of surveys have been undertaken to assess baseline levels of consumer knowledge regarding consumer rights in Australia, the European Union, New Zealand, and the United Kingdom (OECD, 2012[10]).

Such surveys could potentially be used as an input to assessing the impact of awareness raising and education efforts undertaken by consumer agencies. However, it might be difficult to isolate the effects of such campaigns from other influences such as media reports and coverage, for example (in such cases, direct measures of how consumers have interacted with a campaign may be more useful – see section below). Even with this limitation, such surveys could potentially be informative where they focus on an issue that a consumer agency has been trying to raise awareness around and where the survey is undertaken both before and after the agency action, to see how awareness has changed as a result of the campaign. Alternatively, such surveys can be used to identify gaps in consumer knowledge and understanding which can be used to prioritise the efforts of consumer agencies in relation to education and awareness raising activities.

Other consumer agency data

In estimating the costs associated with agency actions, consumer agency budget data is likely to be an important input. Budget data should help to identify staffing costs, overheads, and legal and other expert consultancy costs incurred in relation to a particular action, or administration more broadly.

Consumer agencies may also have information that could be indicative of the effectiveness of some forms of intervention. For example, consumer agencies could track the number of times that an online resource has been viewed to see how many consumers it is potentially reaching. For awareness campaigns on social media, consumer agencies could analyse the engagement level of a post, for example.

Further, information gathered as part of an investigation will also be very useful for determining consumer detriment and hence, the impact of any consumer agency action undertaken to address that detriment. Similarly, information gathered as part of any Internet sweep, may be useful.

Measuring the impact of consumer agency actions

The impact of consumer agency actions can be initiated *ex ante*, to decide whether to take a particular action, or *ex post* to determine the impact of an intervention. As noted by the International Consumer Protection Enforcement Network (ICPEN) (2017[56]), in the case of *ex ante* assessments, three key factors that an agency may wish to consider are:

- the estimated size of the affected turnover associated with the issue

- the (expected) benefit of the intervention (for example, removing or avoiding a price increase)
- the length of time that the benefit could be attributed to the agency.

However, in some cases these factors will be difficult to determine, especially where the perceived benefits do not directly relate to a change in price. Hence, undertaking such assessments usually relies on a number of simplifying assumptions in place of relevant data.

In comparison, *ex post* assessments tend to assess the impact of an intervention by looking at the situation before the intervention as compared to the situation after the intervention. Impacts could be on the demand (i.e. consumer) or supply (i.e. business) side of the market, depending on the intervention.

The various methodologies followed by the CMA, the US FTC, the ACM and the CCCS, in assessing the impacts of various interventions are discussed below.

Approach of the CMA

Where possible, the CMA uses case specific data to estimate the impact of its interventions. In general, it looks to quantify the average or individual personal financial consumer detriment related to the conduct and apply this to the number of affected consumers for the relevant period, using discounting as appropriate (see below for some examples).

Where data is not available, the CMA instead estimates a percentage price effect (normally 1-2%, but up to 5 % - see examples below) and applies this to the turnover that was affected by the abuse. The CMA multiplies the resulting estimate by the assumed duration of the impact. It conservatively assumes that, absent any intervention, the conduct would have continued for at least two years. Where evidence, usually gathered during the investigation, indicates that a different duration is appropriate, for example, due to the length of contracts in the industry, then a different duration may be used. Impacts beyond the first year are discounted using a standard government discount rate. This methodology, while generally carried out after an intervention has occurred, is essentially an *ex ante* assessment since it does not actually assess what the impact was over the relevant time period, but rather, the expected impact.

To demonstrate these two methodologies, here are some examples:

- In 2016, the CMA intervened in the elderly care home sector to prevent care homes from charging for the remainder of the billing period after a resident had died (CMA, 2016[57]). In this case, the number of residents involved, the billing periods used by the providers targeted by the intervention, and their prices, were known from the initial investigation. Combined with survey evidence on the number of days left on residents' contracts once they depart, a precise figure for annual detriment could be calculated *ex ante*.

- In 2016, the CMA also performed an evaluation of a consumer case concerning unfair gym contracts that was previously carried out by the OFT (CMA, 2016[58]). In this case, the benefit was calculated by estimating the number of consumers who were able to cancel their contracts as a result of the intervention (who were unable to do so before), multiplied by the amount of money this saved them. A mixture of evidence gathered during the initial investigation, and surveys of both gyms and consumers, was used. This *ex post* assessment was conducted in 2016 to evaluate the impact of interventions made between 2011 and 2013.

- In 2015, the CMA led a project with the European Commission and Consumer Protection Cooperation (CPC) network authorities to engage with the five largest car rental companies in the United Kingdom (and their subsidiaries) to address a range of unfair practices in the short term car hire market (CMA, 2015[59]). It conducted an *ex ante* review of the impact of the project using data from market research (for example, Mintel (2015[60]) and Moody's (2015[61])), complaints data from Citizen's Advice, and commercial data from the companies themselves.

- In a case about unfair cancellation terms for weddings and events (CMA, 2016[62]), the CMA estimated the (*ex ante*) impact using the following methodology. Average detriment was estimated as the average amount of money lost (through retained deposits and cancellation fees) by complainants. This represented the average cost incurred by a person cancelling a wedding absent the intervention. The number of weddings per relevant business was estimated, as was the proportion of weddings which may be cancelled. This figure was multiplied by the average detriment, and scaled down to account for a proportion of businesses not engaging in harmful conduct prior to the intervention, and scaled down further since the intervention was not expected to address all of the detriment. Since the CMA acted alongside seven other members of the CPC network, 50 % of the impact was ascribed to the CMA (as it was responsible for the bulk of the work).

- As outlined at the CCP's October 2019 roundtable, the CMA also looked at the impact of opaque contracts, unfair auto renewals and misleading pricing by ten consumer cloud storage businesses. In this case it looked at affected revenues, and multiplied this by an assumed price effect to determine the prevented detriment. The price effect was assumed to be 5 % for serious or multiple practices, and 1-2 % for other practices (e.g. a lack of transparency).

As was also noted at the CCP's roundtable, quantification of the impacts of an action is sometimes extremely difficult. For example, consider an example of commitments made by high-profile influencers to properly label paid-for posts on social media. The impact of this could potentially be estimated by multiplying the number of incorrectly labelled ads, by the number of consumers who saw those posts, by the proportion who did not realise that the post was an ad, by the proportion of consumers who made a purchase due to the ad, by the financial detriment from making a sub-optimal purchase. However, it is not clear how many of the parameters could be estimated, making it challenging to measure the impact of this intervention.

The following learnings from the CMA's experience in undertaking these types of estimates were noted at the CCP's roundtable:

- The best estimates usually come from case-specific methodologies that are applied with close involvement of the case team, preferably soon after the intervention.

- Where there is less case-specific data available, there is a need to rely on assumptions. For example, to assume that a percentage of revenue represents the likely detriment. In respect of this, there is a need for more research to provide an empirical basis for these assumptions. Possible research could include laboratory experiments or analysis of businesses' internal documents.

- There is more work to be done for the more difficult cases where there is little available data and research to support any necessary assumptions.

The CMA has been estimating the impact of its actions for many years now and has changed its methodology over time. Back in 2010, the (former) OFT (now the CMA), published a guide for the methodology used at that time (OFT, 2010[63]). The guide describes a process of estimating the impact of consumer interventions using complaints data; treating the (de-trended) fall in the number of complaints following the intervention as indicative of the decrease in consumer detriment which may be attributed to it (see Annex B for an overview of this methodology). This methodology was found to lack robustness since the number of complaints about a firm might not be linked to the extent of detriment in a clear way (as was discussed in Chapter 2). For example, a successful intervention may cause an increase in complaints due to increased awareness (Ormosi, 2012[12]). This led the OFT/CMA to abandon this methodology in favour of the two approaches outlined above.

Approach of the US FTC

As part of its annual financial report, the US FTC assesses its performance compared to a target goal through, for instance, estimating total consumer savings compared to the amount of its resources allocated to consumer protection law enforcement (US FTC, 2017[64]). The US FTC's "total consumer savings" figures are composed of: i) the amount of money the US FTC returned to consumers, and; ii) an estimate of the amount of harm that would have occurred but for the US FTC's enforcement action. To calculate the latter, the US FTC assumes that the harm would have continued for only 12 additional months and that the amount of harm that would have occurred in that period is the same as what occurred in the past. The US FTC's case managers then divide the total estimated economic injury by the years the business operated to derive an annualised estimate of consumer injury for the agency's annual financial report.

The US FTC also publishes the total amount of refunds to consumers from its enforcement actions each year (US FTC, 2017[65]). Once an US FTC lawsuit or settlement is finalised, and the defendants have paid the money, the US FTC's Office of Claims and Refunds attempts to return the money to affected consumers. US FTC court orders facilitate this by requiring the firm to provide a list of customers, their contact information, and how much each customer paid. Where such lists are reliable, the US FTC sends monies to the relevant consumers. In the absence of a reliable list, refunds are made using a claims process, usually involving a media campaign to raise awareness. Alternatively, the US FTC may use its internal complaints data to contact affected consumers directly. And, in some cases, the business administers the redress. Any money left over at the conclusion of the refund program is sent to the US Treasury.

Approach of the Netherlands' ACM

Each year the ACM publishes a report on the effects of its law enforcement as part of its annual report (see e.g. ACM (2017[66])). In the field of consumer protection, the report covers both interventions and consumer outreach. As noted at the October 2019 roundtable, the ACM has followed a standard method for calculating the effects of its actions since 2013, and a key objective of the approach is simplicity. Its standard methods of calculation are published (in Dutch) (ACM, 2013[67]).

In general, the ACM's approach focusses on the effects on price, quality and choice over the short-term (e.g. 2 years), and aims to underestimate (rather than overestimate) the impact. The ACM analyses the market situation before and after the intervention, as well as the extent to which businesses comply with the rules. The ACM uses different methods

depending on the type of intervention. Methodologies generally involve an assessment of the consumer detriment addressed through the ACM intervention and can include the use of quantitative and qualitative information gathered through questionnaires, requests, inquiries and sweeps (ACM, 2017[66]). For example:

- In one case, the ACM intervened to address incorrect termination fees and other administrative errors in charges levied by a firm in the energy sector. The benefit from this intervention was calculated as the differences in charges once the errors had been addressed, and these benefits were assumed to last for three years (ACM, 2014[68]).

- There was a drip pricing case in 2013 which resulted in consumers incurring extra search costs and potentially making a wrong purchase. The ACM calculated that the costs associated with this would be approximately equal to 0.75 % of realised turnover and it assumed that these costs would be addressed by the enforcement action (ACM, 2014[68]). The assumptions behind this calculation are outlined in Box 3.1.

- In another case, the amount of compensation paid out by a business was used as a proxy for the harm that would have occurred in the next year if the ACM had not intervened.

- As noted in the roundtable, for cases involving unfair commercial practices (for example, subscription traps), the general approach is to determine the likely average detriment per consumer, and to multiple this by the number of affected consumers. Where there is no data on the number of affected consumers, the ACM multiplies the number of complaints by a factor of 20, based past research undertaken by the former Office of Fair Trading of the United Kingdom.

- The ACM also calculates the benefit from electricity and gas tariff regulation as the difference between the initial tariff and the capped tariff multiplied by the average household use and the number of contracts, as discussed in the roundtable.

In relation to consumer campaigns, the ACM aims to assess whether campaigns have achieved their goals. However, where this is not possible, it looks at other indicators such as the number of website visits and media reach. In some cases, the ACM has commissioned external parties to assess the impact of campaigns through the use of online tracking and surveying of consumers (ACM, 2017[66]).

The ACM notes that the actual gains are likely to be much higher than its estimates since it does not calculate the effects of all of its interventions and since many benefits are hard to measure in monetary terms (ACM, 2014[68]).

Approach of the CCCS

The CCCS has estimated consumer detriment in a number of instances, as a part of its enforcement activities in Singapore. In particular, the CCCS is required to quantify the consumer benefits that have arisen as a result of its decisions and interventions as part its key performance indicators. Examples of CCCS initiatives include:

- A case taken against a car importer who had misrepresented delivery dates and the cost of the Certificate of Entitlement (COE). In this case, the counterfactual was that consumers received their cars on the agreed date and paid the original agreed prices. The calculation of harm (per consumer) was then the difference in the COE

premium that car owners had to pay, the car rental cost to cover the delayed delivery, and the time-cost of deposits. This was then multiplied by the number of affected consumers.

- A case involving the use of pre-ticked boxes for insurance by low cost airlines. To assess the harm from this, it looked at the number of passengers using these low cost airline services,[2] and the number of passengers who purchased insurance.[3] It then looked to the literature and found a study which looked at the effect of pre-ticked boxes on the number of passengers who paid for seat selection in rail travel. This study showed that paid seat selection jumped from 9 % of passengers to 47 % of passengers, a difference of 37 % (Goldstein et al., 2008[69]). It used this benchmark to estimate the impact of the conduct.

In addition, as noted in Chapter 2, behavioural experiments can help to understanding how consumers respond to certain commercial practices. Better understanding of consumer behaviour can input into assessments about the consumer detriment before and after an intervention (i.e. with and without the commercial practice). It is important to do these experiments in multiple jurisdictions to test whether the results are influenced by jurisdictional differences. In this respect, the CCCS is considering future behavioural experiments on:

- The impact of greater transparency in search ranking results and ownership links between online travel agents and metasearch engines on consumer behaviour. This was flagged as a potential issue in the CCCS's market study on online travel booking (CCCS, 2019[70]).

- Improving information disclosures, building on the work undertaken by the CCCS in developing its draft pricing transparency guidelines (CCCS, 2019[71]).

- Reliance on consumer reviews in purchasing decisions, given the prevalence of fake reviews and consumers' limited ability to potentially identify fake reviews, as uncovered by investigative journalists in Singapore.

Box 3.1. Assumptions associated with the impact of drip pricing

In 2013, the ACM took enforcement action against Ryanair. In particular, airfares on Ryanair's website did not include all foreseeable and unavoidable costs, as was required under regulation. This practice can result in consumers incurring higher search costs or making a wrong purchasing decision.

To calculate the impact of this, the ACM first estimated Ryanair's turnover in the Netherlands. It then assumed that the costs of extra searching and wrong choices were equal to 0.75 percent of realised turnover over two years. This assumption was made on the basis of literature on search costs and assumptions around the costs of wrong decisions:

- Hong and Shum (2006[72]) estimated the search costs associated with purchasing books online to be between 3–4 % of the average price.

- Koulayev (2009[73]) estimated the search costs of booking a hotel online to be about $2.50 per hotel; about 3 % of the median hotel price and 2.5% of the average hotel price.

Therefore, the ACM assumed that search costs are about 2.5 % of the average price. It then assumed that around 20 % of search costs are due to non-transparent prices. Hence, the additional search costs were estimated to be 20 % of 2.5 %, which is 0.5 % of the value of a purchase.

The ACM found that there was a lack of literature on the costs associated with making a wrong decision, or the impacts of drip pricing on the likelihood of making a wrong decision. It therefore made the following assumptions to estimate the impacts of a wrong choice:

- 5 % of sales are due to a wrong decision to purchase

- 5 % of the price represents the value of a wrong purchase.

Five percent of 5% is equal to 0.25% of the value of the purchase.

Adding these two costs together gives 0.75 % of realised turnover. It then assumed that its enforcement action addressed the entire consumer detriment associated with the conduct.

Source: Consultation with ACM staff.

Other approaches

While only a few consumer agencies undertake in-depth estimates of the benefits of their interventions, many collect and report on other types of indicators of impact. For example, the benefits of demand-side interventions can potentially be measured with reference to the number of consumers reached via the various tools. This approach has been used previously in Canada, where media coverage was used to indicate the impact of the policy (OECD, 2013[7]). Consumer agencies could also track the number of times that an online resource has been viewed or consumer engagement with a social media post, for example.

On the supply-side, the number of businesses that have changed their practices could be indicative of the benefits. Such an approach was used by the Israel Consumer Protection and Fair Trade Authority to understand the impact of increased enforcement in the retail grocery sector (see Box 3.2).

The potential role of business surveys to understand business perceptions of and responses to enforcement was discussed at the October 2019 roundtable, with this seen as a potential way to understand the deterrent effect of consumer agency actions. In this regard, the Israel Consumer Protection and Fair Trade Authority together with Professor Ariel from the Institute of Criminology at Hebrew University, have designed a Business Deterrence Survey, intended to examine the Authority's impact on businesses, from knowledge of the law to compliance and deterrence.

The survey, which consists of an anonymous questionnaire within an academic research project, examines a variety of issues including:

- business familiarity with the Authority and the Consumer Protection Law

- the level of compliance of the business and among similar businesses

- compliance and deterrence questions including reasons for noncompliance, level of deterrence, how businesses perceive their chances of being caught and how they estimate the sanction that will be imposed in case of violation of the law

- motivation for complying with the Law and about pro-active actions taken by the business to comply with the Law.

The Authority has carried out a pilot telephone survey on a limited number of participants in order to test its feasibility, and plans to circulate the survey online to tens of thousands of businesses, with the aim of obtaining a representative sample, and to conduct the survey periodically.

In a similar vein, the EC asks businesses about their views on consumer markets as part of its Consumer Market Scoreboard publication. In 2017, the results showed a high positive correlation between retailers' views on enforcement and their assessment of compliance, suggesting that enforcement does have a positive impact on compliance (EC, 2017[74]).

Box 3.2. Impact of enforcement in the grocery sector in Israel

Between 2015 and 2017, the Israel Consumer Protection and Fair Trade Authority focused its annual work plan in the area of retail sales of grocery products to consumers. This was chosen since expenditure in this area averaged around 16.3% of total household monthly expenditure, increasing up to 21.4% for the poorest 20% of Israeli households. Hence, expenditure on food is significant and sensitive for the average Israeli household.

To assess the impact of its interventions over this period, the Authority monitored business compliance. In particular, inspectors were sent, according to a model developed in the Authority, to retail stores selling food products throughout Israel, where they systematically examined compliance with several law provisions relating to the area of food sales.

In order to determine whether enforcement actually lowered the number of violations, the Authority calculated the number of violations identified each month as a percentage of the number of inspections each month. After creating a series of the monthly percentages, the Authority calculated the percentage of inspections where violations were found in each of the years examined, which showed a decrease over the period 2015 to 2017. For example, 65% of inspected businesses failed to display prices in 2015, compared to 53% in 2016 and 46% in 2017. In addition, 55% of inspected businesses failed to disclose food products under price regulation in 2015, compared to 22% in 2016 and 18% in 2017.

To test whether the decrease was significant, the agency undertook a linear regression where the dependent variable was the percentage of violations and the independent variables were dummy variables for 2016 and 2017. The regression had significant results, showing a significant reduction in the frequency of violations between 2015 and 2017. This correlated with a period of targeted enforcement, including monetary sanctions, by the Authority, suggesting that its enforcement activities may have been effective.

In relation to product safety, information about domestic, regional and global recalls can assist consumer product safety authorities to identify and assess risks at an early stage to inform policy or other regulatory responses. Many jurisdictions now maintain their own domestic recall databases and contribute to regional and global recall databases such as the ASEAN and the Organization of American States' recall portals and the OECD *GlobalRecalls* portal. The data in such portals provides national authorities with a bird's eye view of emerging product safety trends and issues within and outside their jurisdictions and can enable them to take action to protect consumers in their jurisdiction. For example, a number of OECD countries and partner economies use the OECD *GlobalRecalls* portal to inform their domestic product safety initiatives and mitigate consumer harm. In Australia, recall information from the *GlobalRecalls* portal has been used to help justify the initial imposition and then continuation of mandatory product safety standards, while in Costa Rica, 64 % of its domestic product recalls since 2016 have been informed by data on the OECD *GlobalRecalls* portal.

There may also be relevant examples from other regulatory bodies that undertake impact assessments. For example, Ofgem, the energy regulator of the United Kingdom, estimates the consumer impact of its interventions as part of its annual report. Among other things this has involved estimating the benefits from service level requirements, targeted interventions on switching behaviour and enforcement actions (Ofgem, 2018[75]; Ofgem, 2019[76]). In some cases, Ofgem has even estimated the consumer detriment associated with enforcement actions (Ofgem, 2018[75]; Ofgem, 2019[76]). Similarly, many competition

authorities attempt to estimate the impact of their interventions. The OECD has released a *Guide for helping competition authorities assess the expected impact of their activities* (OECD, 2014[53]). Some of the key principles from the guide are summarised in Box 3.3. In the roundtable in October 2019 (see Annex A for the roundtable agenda) a number of delegates expressed their support for developing a similar methodology for the measurement of consumer agency actions.

Box 3.3. Estimating the impact of competition authority actions

The OECD's *Guide for helping competition authorities assess the expected impact of their activities* highlights the following general principles:

- use case-specific information where possible

- assume that no intervention will have a negative impact

- estimate static consumer benefits and when possible also include dynamic ones

- calculate and publish impact assessments regularly

- present the results as an annual figure and an annual three year moving average

- present the results by type of decision, when possible

- give 'point' estimates within a range of plausible values.

In terms of static consumer benefits, the guide provides that a simple estimate can be determined by multiplying:

- the size of the affected turnover, by

- the price increase removed or avoided, and

- the expected duration of the price effect.

Where an agency does not have case-specific data, the guide recommends the following assumptions:

- for the size of the affected turnover:

  o in cartel and abuse of dominance cases, the ex-ante turnover of the companies under investigation in the affected market(s)

  o in merger cases, the ex-ante turnover of all the firms in the affected market(s).

- for the expected price effect:

  o in cartel cases, an overcharge of 10%

  o in abuse of dominance cases, a price increase of 5%

  o in merger cases, a price increase of 3%.

- For the likely duration of the price increase absent the competition agency's intervention:

  o in cartel cases, a 3-year duration

  o in abuse of dominance cases, a 3-year duration

  o in merger cases, 2-year duration.

Source: OECD (2014[53]).

Conclusions

A number of consumer agencies have been estimating the impact of their activities for some years. Such assessments tend to be case-specific and the choice of methodology is somewhat determined by information availability. The best estimates tend to be for cases where there is good data on the incidence of detriment, the magnitude of detriment, and the likely time horizon for the conduct (absent the intervention). In these cases, data is often provided by the relevant business(es) as part of the investigation. In some cases, this information has been supplemented with data and information from surveys.

In general, the magnitude of detriment is much easier to estimate where the case involves a clear price impact, such as an overcharge, or a fee for an unwanted service. Detriment associated with issues such as misinformation, misleading information, opaque pricing, and some forms of unfair contract terms may be more difficult to quantify from the information gathered as part of the investigation. In some of these cases, assumptions have been drawn from the literature. For example, the ACM looked to the literature to inform its assumptions on the impact of drip pricing (it assumed an impact of 0.75 % of revenue). Further, the CCCS looked at the literature on the impacts of pre-checked boxes (one study found that the purchase of pre-paid seating jumped from 9 % of passengers to 47 % of passengers with pre-checked boxes). In other cases, rules of thumb have been used as a proxy of the price impacts of these forms of conduct (e.g. the CMA's use of a multiplier of 1-5 % of revenue, depending on the conduct). Assumptions regarding the duration of the conduct range from one to three years, except where there is information to support an alternative period.

As noted at the CCP's roundtable, where assumptions are made, these need to be presented transparently to allow for scrutiny of the results and continual improvement to the methodology. Ideally, any important assumptions should also be subject to a sensitivity analysis. Other methodological considerations requiring more attention include how to account for any deterrent effect (if at all); what time frame to consider; how to consider any gains to business at the expense of consumers (if at all); whether it matters if fines may go to affected consumers or to government revenues, and; how to determine the counterfactual.

4. Consumer policy

This chapter outlines the qualitative benefits and costs of consumer policy and then considers potential ways of measuring these benefits and costs. In most OECD countries, consumer spending accounts for approximately 60% of Gross Domestic Product (GDP) (OECD, 2019[77]); hence, consumer policy applies to a substantial proportion of the economy and its impacts could potentially be wide-ranging.

Benefits of consumer policy

Consumer policy can result in a range of benefits, including:

- **Informed consumer decision-making**: Some consumer policies address market failures associated with imperfect and asymmetric information (OECD, 2010[6]). For example, many jurisdictions require that businesses i) provide adequate information about the business, product and the transaction; and ii) ensure that information is not false, misleading or deceptive. These protections can help consumers avoid financial and non-financial personal detriment associated with making a poor purchase due to insufficient, false or misleading information. In this context, financial detriment may be the cost involved in buying the wrong product or paying too much, and non-financial detriment may be the hassle and stress associated with buying an unsuitable product. More informed consumer decision-making can also foster effective competition between businesses bringing greater and lower prices for consumers, as well as increased productivity and economic growth (OECD, 2014, p. 2[78]).

- **Improved consumer confidence and trust**: Consumer policy can promote consumer confidence and trust in markets, thereby contributing to greater consumer engagement and economic growth (OECD, 2015[79]; Algan and Cahuc, 2013[80]). For example, it can remedy market failures associated with externalities that occur when the costs or benefits of an action are not entirely borne by the party making the decision about whether to undertake the action as in the case of spam, and poor data security. It can also address power imbalances between businesses and consumers that might diminish consumer trust through, for example, contract terms regulation and cooling off periods (UNCTAD, 2016[81]; OECD, 2010[6]). It can also help to address practices (such as drip pricing) that may take advantage of consumers' behavioural biases (OECD, 2017[42]; OECD, 2018[82]). Such protections can in part address some forms of structural detriment that would otherwise occur.

- **Consumer protections from frauds, scams and unsafe products**: Coupled with effective enforcement and education, prohibitions and other protections against frauds, scams and unsafe products can also protect consumers. In particular, such protections can reduce the risk of consumers suffering from financial and non-financial detriment, and can otherwise compensate consumers where they do suffer from these types of detriment. Addressing such issues can also promote consumer confidence and trust, discussed above.

Analysis by the EC suggests that consumer conditions influence the economic and social environment. In particular, while a direct causal link may be difficult to establish, there appears to be a positive correlation between consumer conditions and i) gross adjusted

disposable income per capita, ii) global competitiveness, iii) innovation, and iv) a number of other social indicators. In addition, there appears to be a negative correlation between consumer conditions and i) material deprivation, and ii) inequality (EC, 2017[74]).

Costs

While consumer policy brings a range of benefits, it can also impose direct and indirect costs. These costs can be one-off or ongoing. Potential costs include:

- **Compliance costs**: Including the costs of buying new equipment; employing staff, consultants or experts to work on compliance; changing production processes, or; collecting and storing information, for example (OECD, 2008[83]). Estimates of compliance costs should ideally be informed through consultation with businesses.

- **Government costs**: Including the costs borne by government in administering and enforcing consumer policy including staff costs, overheads, and legal costs (OECD, 2008[83]).

- **Competition**: Consumer policy could potentially have negative or unintended impacts on competition if, for example, it sets rules that: restrict price competition or advertising; raise barriers to entry, or; otherwise reduce competition between businesses (OECD, 2008[83]). There may also be substitution effects to the extent that one market is regulated and another is not (OECD, 2008[83]). However, effective consumer policy, which empowers consumers and addresses information asymmetries, is also a precursor to effective competition.

- **Innovation**: Consumer policy could unintentionally stifle innovation if it makes it more difficult for new businesses to enter a market, for example, by imposing regulatory requirements that are costly or difficult to meet (OECD, 2008[83]). However, consumer policy could potentially drive innovation to the extent that it increases competition, as noted above.

Possible information sources

To the extent that estimates of consumer detriment are used as inputs to estimate the impacts of consumer policy, the information sources and methodology discussed in Chapter 2 remain relevant here. In addition, while not discussed below as a separate methodology, surveys could be used to inform qualitative information around the impact of consumer policy. For example, as noted at the October 2019 roundtable, in 2014, the Consumer Directorate General of Portugal sent out surveys to arbitration centres, consumer associations and local consumer information centres to evaluate the application of the Consumer Rights Directive.

In addition, macroeconomic data (such as GDP and productivity estimates, for example) may be required if the aim is to measure the macroeconomic impacts of consumer policy. The OECD has access to a range of macroeconomic and other data that would likely suit this purpose. To the extent that a specific consumer policy issue has competition impacts, market power indicators may also be worth consideration. Of course, even where such data exists, a key issue for measuring the impact of consumer policy would be to establish clear links between these indicators/data and changes in consumer policy.

Measuring the impact of consumer policy

This section looks at possible approaches to estimating the impacts of consumer policy. Some of these approaches would be more appropriate for measuring the impacts of consumer policy at a general level, whereas others could look at the effects of a change in consumer policy (or new piece of consumer legislation), or to predict the impact of a new type of consumer policy.

Some of the approaches canvassed below involve modelling. Econometric modelling and simulation modelling are two broad approaches. There are some potential limitations with these approaches, as discussed below. These limitations led the Competition Committee to focus on qualitative analysis when looking at the impact of competition policy broadly (OECD, 2014[78]).

More generally, measuring impacts over a longer time horizon can be difficult. As noted by Ormosi (2012, p. 17[12]):

> *In general it is always difficult to assess the long-term effect of any public policy, given the exponential rise of possible compounding effects with time, which makes it difficult to distinguish effects that were caused by the intervention from effects triggered by exogenous factors.*

Econometric modelling

Econometric modelling can be used to estimate the impacts of various types of policy based on actual changes in key indicators using historic data. For example, the OECD has done work on looking at the impact of structural reforms in relation to product market regulation and labour market policies (Égert and Gal, 2016[84]). Such analyses look at the impacts of changes in policy on macroeconomic outcomes such as productivity, GDP and employment, for example. This is done by constructing an econometric model of the demand and supply conditions in the macro economy.

In theory, this type of modelling could be used to estimate the impacts of consumer policy generally, as measured by an index of consumer policy stringency. Such an approach would involve an assessment of the effectiveness of consumer policy in the various OECD countries (and any other countries that might be included in the analysis), possibly by considering a country's performance on a range of indicators (which would need to be developed and measured or assessed by subject matter experts). However, creating a robust and defensible index of this type is likely to be challenging. Further, even with a robust index, it may be difficult to isolate the impacts of consumer policy from the impacts from other (potentially correlating) policies. For example, a country with strong consumer protections may also have strong institutions and human rights protections, which could also be expected to improve economic impacts. This may be especially difficult where the modelling is undertaken at an economy-wide level, which is likely to be the case with consumer policy, which tends to apply across a broad range of consumer markets.

Alternatively, this type of modelling could be used to look at the macroeconomic effects from a significant change in consumer policy, or a new piece of consumer legislation. This is more likely to be effective where the policy or legislative change is expected to have a significant impact on the economy, and where other changes can be controlled for. What might be more promising would be to look at industry or market-wide impacts where a change in consumer policy impacts as specific industry or market. However, in practice, consumer protections tend not to be industry or market specific.

Econometric modelling has been used by the European Commission in a number of impact assessments:

- It was used (alongside simulation modelling – see below) to determine the impact of its proposed "Digital contracts" package on cross-border online purchases by consumers (EC, 2015[85]; Cardona et al., 2015[86]). In particular, using survey data (EC, 2015[87]), Cardone et al. (2015[86]) developed a logit model to determine the influence of the various barriers to engaging in cross-border e-commerce. They then used an Ordinary Least Squares regression to determine the amount spent on cross-border e-commerce from other European Union countries. The estimated change in the number of consumers that buy online abroad, and spending on online purchases from other European Union countries was then combined in a single figure as an input into the simulation modelling (see below). A similar approach was employed to determine the impact on cross-border online sales by businesses.

- It was used in the assessment of the European Union's "New Deal for consumers" (EC, 2018[88]). In particular, to assess the extent to which implementation of contractual or extra-contractual remedies in a country is associated with a lower probability of a consumer experiencing an unfair commercial practice. This was done by developing a Linear Probability Model (LPM) which used data from the Consumer Conditions Scoreboard and data on the extent of remedies in each European Union country. Combining results from this regression with other sources of statistical information, the European Commission was able to estimate the reduction in consumer detriment corresponding to a situation where all European Union Member States would provide remedies linked to breaches of the Unfair Commercial Practices Directive.

- It was used to assess the impact of removing geo-blocking practices in the European Union (EC, 2016[89]; Duch-Brown and Martens, 2016[90]). The core model was based on discrete choice models of product differentiation (i.e. they used a two-level nested-logit model). Data came from GfK Retail and Technology, an European Union Mystery Shopping Survey and Euromonitor International's Passport Database.

- While not specific to consumer policy, modelling has also been undertaken to assess the impacts of a digital single market. See, for example, Civic Consulting (2011[91]) and European Parliamentary Research Service (2017[92]).

As noted at the CCP's roundtable, there are a number of potential benefits from econometric modelling including that it can allow for a "bespoke" model to be built from the bottom-up; it can provide flexibility in that the key parameter values can easily be changed (and assumptions tested); and, it requires less data than is typically required in simulation modelling (see below). However, there are potential limitations including that these models tend to be partial analyses that do not capture wider indirect impacts (that are better captured with simulation modelling), and that model specification is critical to the validity of the results (key issues include omitted variables and endogeneity problems).

Further scoping work would need to be undertaken to understand whether econometric modelling could be a useful tool for measuring the impact of consumer policy, and in what circumstances. A cursory assessment suggests that this method might be useful in specific circumstances where there is adequate data but that it may be less useful for determining the impact of consumer policy generally on the macro economy.

Simulation modelling

Simulation modelling is a type of modelling that looks at economic (or other) outcomes with and without a type of policy (or other) intervention. Examples include computable general equilibrium (CGE) models and agent-based models (ABMs).

- CGE models are computer simulation models that use data to explore the economic impact of changes in policy, technology and other factors (OECD, n.d.[93]). Normally, CGE models work by implementing a "shock" to a variable in the model to assess the economy-wide impacts of the shock. Common uses are to assess the impacts of tariff changes or changes to productivity, for example. It is unclear how consumer policy at a general level could be linked to the variables in a CGE model without undertaking further work. Further, the OECD's CGE trade model (METRO) might not be fit-for-purpose (OECD, 2015[94]). That said, the European Commission has used CGE modelling (using a version of the Global Trade Analysis Project (GTAP) model) to estimate the impact of its "Digital contracts" package on the economy (EC, 2015[85]; Cardona et al., 2015[86]). In this case, the estimated impact on cross-border e-commerce (estimated using survey data and econometric modelling) was inputted as a shock into the model to determine the economy-wide impacts.

- ABMs use a dynamic system of interacting, autonomous agents to allow macroscopic behaviour to emerge from microscopic rules (OECD, n.d.[95]). Each agent (person, institution or object) individually assesses its situation and makes decisions consistent with rules assigned to it. The agents' actions change the environment. In the next period, each agent sees its new environment and takes action again. Thus, there is an interaction between the agents and the environment, and between one agent and another. Unlike many economic models, ABMs do not assume that people are rational. Instead, they can include behavioural biases. There have been ABMs built to look at consumer behaviour in markets (see, e.g. Baptista et. al. (2014[96])), and one could imagine using ABMs to look at the effects of specific issues such as imperfect information (albeit in a highly simplified environment). However, it is less clear that ABM would be a good tool for measuring the impacts of consumer policy overall at an economy-wide level.

As noted at the CCP's roundtable, there are a number of potential benefits from simulation modelling. One key benefit is that, if properly specified, such approaches can capture both direct and indirect impacts from a policy change, including feedback effects across sectors and other "spill over" effects. However, there are a number of potential limitations, including that such models are based on an assumed set of relationships (that may not hold in reality); require a significant amount of data (which are not always available); and, are highly complex and technical.

Approaches based on estimates of consumer detriment

Another approach is the model developed by the Productivity Commission in Australia (2008[97]), and later adapted by the ICF GHK (2013[98]). This model was built to estimate the likely net benefit of the reforms recommended as part of its 2008 review of Australia's consumer laws and policy, as required in its terms of reference. The starting point was an estimate of total consumer detriment, derived from a state-based survey undertaken in 2006 (Consumer Affairs Victoria, 2006[27]), and extrapolated for all of Australia. It then:

- reduced the detriment by 10% in case the reforms did not address the entire detriment, to be on the conservative side (the figure of 10% was chosen based on the Productivity Commission's best judgement)

- increased the detriment by 25% to account for emotional costs, drawing on relevant literature and examples

- increased the detriment by 10% to account for the fact that perceived risk is greater than actual risk (the reasoning for this was supported by behavioural literature generally, but the value of the reduction was a best guess by the Productivity Commission).

The Productivity Commission used the above as a base and then assumed that the reforms could reduce the resulting (overall) detriment by 5% (based on their judgement regarding the likely impact), less transfers from businesses to consumers. It also accounted for indirect benefits such as increased productivity, reduced transaction costs and reduced compliance costs (from simplifying and harmonising consumer laws across jurisdictions).

While this approach was useful for developing a "ball park" estimate of the benefits from the proposed reforms, the results are sensitive to the Productivity Commission's assumptions, which could not always be supported by data or literature. Further, while this approach allowed the Productivity Commission to estimate the impact of the proposed reforms, it would be less suited to determining the impact of consumer policy more broadly. The main reason for this is that determining a counterfactual is likely to be particularly difficult. In particular, identifying what level of detriment would be present in the absence of any consumer policy would be challenging. Further, the Productivity Commission included many qualifiers to note that the methodology was "experimental". The report by ICF GHK (2013[98]) applied the Productivity Commission's methodology in a context of the United Kingdom.

Conclusions

To date, it does not appear that anyone has attempted to assess the impact of consumer policy (in entirety) on the macro economy. However, there have been several attempts to assess the impacts of consumer policy changes, or new consumer policies. In many of these examples the impacts largely came from harmonising consumer laws between jurisdictions which can improve cross-border trade and reduce compliance costs on businesses.

Theoretically, a number of methodologies, including econometric modelling or simulation modelling, could be used to measure the impacts of consumer policy. However, in both cases, there would need to be more work on identifying and proving the links between changes in consumer policy and changes in macroeconomic outcomes. Further, it is not clear that there is sufficient existing data (or indicators) available that could easily be used for these purposes. Last, these approaches are inherently more complex and technical, making them potentially less accessible for some audiences.

For the above reasons, much more work would need to be undertaken to further develop methodologies for measuring the macro economic impact of consumer policy. The benefits and costs of undertaking such work should be carefully considered given consumer agencies' limited resources and competing demands. In the October 2019 roundtable, the CCP did not support further work in this area over the short-to-medium term.

Annex A. Agenda for CCP's Roundtable on Measuring Consumer Detriment and Consumer Agency Actions, 23 October 2019

The OECD's Committee on Consumer Policy (CCP) has been working for over a decade on improving the evidence base for consumer policymaking to ensure that it is based on the best available data concerning likely costs and benefits. In an effort to continue this work, the CCP has started looking at the feasibility of measuring consumer detriment and the impact of consumer policy and consumer agency actions.

The purpose of this roundtable is for delegates to share their experiences in relation to measurement, especially in relation to measuring consumer detriment and the impact of consumer agency actions. A draft feasibility study has been prepared to support the discussion [DSTI/CP(2019)13].

Background

Building on work already undertaken by the CCP, including in developing the Consumer Policy Toolkit, the draft feasibility study looks at possible methodologies for estimating:

1. consumer detriment (Chapter 2)
1. the impact of consumer agency actions (Chapter 3)
2. the impact of consumer policy more broadly (Chapter 4).

The main findings of the draft feasibility study are summarised below.

Estimating consumer detriment

Consumer detriment is the loss or damage experienced by a consumer as a result of a problem relating to the purchase of a good or service ("product"). This may be the case when a product does not meet the consumer's requirements, is faulty, or over-priced. Consumer detriment comprises personal and structural detriment. Personal detriment focuses on the negative outcomes experienced by individual consumers relative to some benchmark such as reasonable expectations. In comparison, structural detriment is the loss in consumer welfare due to market or regulatory failure. Consumer detriment can be financial or non-financial. Further, there can be "hidden" detriment when a consumer has experienced detriment but does not realise it. These concepts are discussed in Chapter 2 of the draft feasibility study. If jurisdictions are able to estimate consumer detriment they can use this to identify areas in which consumers are experiencing problems and to quantify the magnitude of these impacts. This can allow for more informed policymaking and better prioritisation of consumer agency actions.

A number of information sources are relevant to estimating consumer detriment. These include consumer complaints data and consumer surveys covering consumer views, experiences (including consumer detriment) and behaviours. Consumer detriment surveys, in particular, are especially useful for estimating financial personal detriment, and could potentially inform non-financial personal detriment (e.g. in relation to lost time). However, they are less useful for estimating structural detriment. A number of jurisdictions, including Australia, the European Union, Japan, the Netherlands, the United Kingdom and the United States, have undertaken consumer detriment surveys and there has already been much work

undertaken to refine and improve these methodologies, as will be discussed by the roundtable participants. Future work in this area could build on the considerable work already undertaken.

Estimating the impact of consumer agency actions

Developing methodologies to estimate the impact of consumer agency actions could be useful for demonstrating the value of consumer agencies and to help prioritise enforcement and other activities. As discussed in Chapter 3 of the draft feasibility study, a number of consumer agencies already publish information on the estimated impact of their activities, including the Competition and Markets Authority in the United Kingdom, the Federal Trade Commission in the United States, and the Authority for Consumers and Markets (ACM) in the Netherlands. However, there is little publicly available guidance on the methodologies used for this purpose. Further, estimation of the benefits is usually confined to consumer agency actions that lend themselves to measurement. For example, actions that correct a price increase or otherwise reduce the costs incurred by consumers. Panellists on this topic will share their experiences in undertaking these types of measurement activities.

If this work is progressed, more work would need to be undertaken to better understand the methodologies used by relevant consumer agencies in estimating the impact of their activities. Such work could help identify whether robust but simple methodologies could be developed or whether case-by-case methodologies are required. If the latter, it may be useful to look at which types of consumer agency actions (or market conduct) lend themselves to estimation and/or measurement.

Estimating the impact of consumer policy

Consumer policy has the potential to reduce structural detriment associated with market failures such as imperfect and asymmetric information and externalities. In addition, it can reduce personal detriment by offering a host of consumer protections which stop personal detriment from occurring in the first place, or otherwise reduce its likelihood or severity.

Econometric modelling and simulation modelling (including computable general equilibrium models and agent based modelling) could potentially be used to assess structural detriment. Indeed, some of these approaches have been used by the European Commission to estimate the impacts of a range of proposed consumer protections, usually looking at the specific effects on trade (by removing barriers to trade). However, these approaches may be less suitable when looking at consumer policy as a whole, given that it may be difficult to isolate those impacts from other exogenous impacts, as discussed in Chapter 4. Alternatively, consumer detriment estimates could be used to inform estimates of impact at an economy-wide level. Such an approach was applied by Australia's Productivity Commission. This suggests that work on estimating the impact of consumer policy should be sequenced after work on measuring consumer detriment.

Roundtable agenda

Introductory comments from the Secretariat (5 minutes)

The Chair will introduce the roundtable and the Secretariat will provide a brief summary of the key findings from the draft feasibility study.

Measurement and consumer policy (10 minutes)

Dr Christopher Decker, Centre for Socio-Legal Studies, Oxford University, will provide an overview of some of the key issues and potential difficulties associated with measuring consumer detriment and the impact of consumer agency actions, as well as consumer policy more generally. He will also provide a brief overview of economic approaches to measurement both in microeconomic and macroeconomic contexts.

Dr Christopher Decker is an economist who specialises in regulation, competition economics, law and economics, behavioural economics and institutional economics. He has recently been involved in reviewing the annual assessments of the Competition and Markets Authority of the United Kingdom (CMA) and has also worked with regulators/policymakers in the areas of energy, medicines, legal services and financial services on how to approach the task of measuring the impact of their activities on consumers.

Discussion questions (10 min)

1. What topics and methodologies provide the most promise from an academic perspective?
2. What are some of the potential difficulties that we should be mindful of?

Panel 1: Experiences in measuring consumer detriment (20 minutes)

In the first panel, delegates will share their experiences in measuring consumer detriment.

- The **European Commission** will talk about its experience in measuring consumer detriment.

- **Japan** will briefly intervene on its experience with measuring consumer detriment.

- **Portugal** will share its experience in developing and using its consumer complaints database.

- The **United States** will share its experience in measuring consumer detriment in respect of fraud.

Discussion questions (15 min)

1. Do consumer surveys offer the most promising avenue for quantifying consumer detriment?
2. Do such surveys work better when focussed on specific issue areas or when conducted more broadly?
3. What are some of the key methodological issues to be mindful in undertaking consumer detriment surveys? Are there any potential problems associated with consumer detriment surveys? How often should such surveys ideally be undertaken?
4. What other information (e.g. consumer complaints data) can inform estimates of consumer detriment?

Panel 2: Experiences in measuring the impact of agency activities (15 minutes)

The second panel will allow delegates to share their experiences in measuring the impact of their respective agency activities. The discussion will be supported by presentations from:

*   The **United Kingdom**.
*   The **Netherlands**.
*   **Singapore**.

Discussion questions (15 min)

1. Is there potential to develop one or more simple methodologies to estimate the impact of consumer agency actions, or can such estimates only be developed on a case-by-case basis?
2. If simple rules of thumb are unlikely to apply in all cases, to what degree could methodologies be based on the type of consumer detriment being experienced (e.g. scams, fraud, drip pricing)?

Annex B. Methodology used to estimate the impact of actions undertaken by the (former) Office of Fair Trading of the United Kingdom

In 2010, the United Kingdom's (former) Office of Fair Trading (now the CMA), published a guide to its impact assessment methodology (OFT, 2010[63]). The methodology outlined in the 2010 guide, which is summarised below, used a number of information sources (including complaints data) and drew on relationships determined from the results of consumer detriment surveys. This methodology is no longer used by the CMA in estimating the impact of its actions, largely because the number of complaints is not necessarily indicative of the level of detriment in the market. Nonetheless, the previous methodology is summarised below for information purposes.

Complaints data were a key input into the assessment of the OFT's interventions. To determine the impact of an intervention, the OFT first looked at the number of complaints in the 12 months before and after the intervention. Recognising that there may be a trend in the overall number of complaints made, the OFT applied an "adjustment factor" to remove any underlying trend. The adjustment factor was equal to the overall percentage increase in the number of complaints reported over the relevant period.

It then estimated average consumer detriment by using data on payment values from its complaints database and adjusting these according to a formula derived in analysing the results of its consumer detriment surveys. The formula was: $log_{10}(D) = 0.3354 + 0.6340 \, log_{10}(P)$, where D is the average detriment and P is the average payment value associated with each complaint.

The OFT then applied a multiplier to account for the fact that only a proportion of consumers who experience a problem actually complain. Its previous research on detriment suggested that this impact is sector specific and hence, it applied "sector multipliers" to account for this. The multipliers are listed in Table B.1 below.

Table B.1. Sector multipliers

Sector	Multiplier
(A) House Fittings and appliances	22.8
(B) Other household requirements	56.9
(C) Personal goods and services	24.7
(D) Professional and financial services	59.3
(E) Transport	14.0
(F) Leisure	32.0

Source: Office of Fair Trading (2010[63]).

Finally, the OFT multiplied the resulting estimate by the assumed duration of the impact. It (conservatively) assumed that, absent any intervention, the conduct would have continued for at least two years. It estimated the avoided detriment both from improving the practices of the firm(s) subject to the intervention as well as for other firms in the same sector according to the equations in Box B.1.

Box B.1. CMA equation for calculating the total benefit

The avoided detriment is calculated as the benefit from improving the practices of the firm(s) subject to the intervention (given by B_1) as well as for other firms in the same sector (given by B_2) according to the equations below.

Total impact = B_1 + B_2, where:

$B_1 = (Cb_1.A - Ca_1).(D).(M).(T)$, and

$B_2 = (Cb_2.A - Ca_2).(D).(M).(T)$.

Where:

Cb_1 = Complaints against the targeted firm(s) in the 12 months before intervention

Cb_2 = Complaints against other firms in the same sector in the 12 months before intervention

A = Adjustment to reflect general increase in complaint numbers

Ca_1 = Complaints against the targeted firm(s) in the 12 months after intervention

Ca_2 = Complaints against other firms in the same sector in the 12 months before intervention

D = Average detriment associated with each complaint

M = Sector specific multiplier

T = Number of years for which the practice was expected to continue, absent intervention

Source: Office of Fair Trading (2010[63]).

References

ACCC (2019), *Targeting scams—Report of the ACCC on scams activity 2018*, Australian Competition and Consumer Commission, https://www.accc.gov.au/publications/targeting-scams-report-on-scam-activity (accessed on 8 August 2019). [18]

ACM (2017), *Annual Report ACM in 2017*, The Netherlands Authority for Consumers and Markets, https://www.acm.nl/sites/default/files/documents/2019-01/2017-acm-annual-report.pdf (accessed on 14 July 2019). [66]

ACM (2014), *2013 Annual Report: The Netherlands Authority for Consumers and Markets (ACM)*, The Netherlands Authority for Consumers and Markets, https://www.acm.nl/sites/default/files/documents/2019-01/2013-acm-annual-report.pdf (accessed on 14 July 2019). [68]

ACM (2013), *Outcome ACM: Working Paper*, The Netherlands Authority for Consumers and Markets, https://www.acm.nl/sites/default/files/old_publication/publicaties/12714_berekeningsmethode-outcome-acm-en-resultaten-2013-2014-03-13.pdf (accessed on 14 July 2019). [67]

ACM (2008), *Onderzoeksrapport Oneerlijke Handelspraktijken (OHP's) in Nederland*, https://www.acm.nl/sites/default/files/old_publication/publicaties/13442_onderzoeksrapport-oneerlijke-handelspraktijken-2008.pdf. [29]

Ahmetoglu, G. et al. (2010), *Pricing Practices: Their Effects on Consumer Behaviour and Welfare*, Prepared for the Office of Fair Trading, http://webarchive.nationalarchives.gov.uk/20140402172955/http://oft.gov.uk/shared_oft/business_leaflets/659703/Advertising-of-prices/Pricing-Practices.pdf (accessed on 2 August 2017). [37]

Ahmetoglu, G., A. Furnham and P. Fagan (2014), "Pricing practices: A critical review of their effects on consumer perceptions and behaviour", *Journal of Retailing and Consumer Services*, http://dx.doi.org/10.1016/j.jretconser.2014.04.013. [36]

Algan, Y. and P. Cahuc (2013), "Trust, Institutions and Economic Development", *Handbook of Economic Growth*, Vol. 1A, http://econ.sciences-po.fr/sites/default/files/file/yann%20algan/HB_FinalVersion1.pdf (accessed on 26 June 2019). [80]

Anderson, K. (2019), "Mass Market Consumer Fraud in the United States: A 2017 Update"*, Staff Report of the Bureau of Economics*, Federal Trade Commission, https://www.ftc.gov/reports/mass-market-consumer-fraud-united-states-2017-update. [24]

Balan, D. et al. (2015), "Economics at the FTC: Fraud, Mergers and Exclusion", *Review of Industrial Organization*, Vol. 47/4, pp. 371-398, http://dx.doi.org/10.1007/s11151-015-9488-6. [50]

Baptista, M. et al. (2014), *An Agent-based Model of Consumer Behavior Based on the BDI Architecture and Neoclassical Theory*, https://www.researchgate.net/publication/299369573_An_Agent-based_Model_of_Consumer_Behavior_Based_on_the_BDI_Architecture_and_Neoclassical_Theory (accessed on 14 July 2019).

[96]

Cardona, M. et al. (2015), "The Macro-economic Impact of e-Commerce in the EU Digital Single Market"*, Digital Economy Working Paper*, No. 2015/09, Joint Research Centre, European Commission, https://ec.europa.eu/jrc/sites/jrcsh/files/JRC98272.pdf (accessed on 12 August 2019).

[86]

Carlson, J. et al. (2017), "Economics at the FTC: Deceptive Claims, Market Definition, and Patent Assertion Entities", *Review of Industrial Organization*, Vol. 51/4, pp. 487-513, http://dx.doi.org/10.1007/s11151-017-9596-6.

[49]

CCCS (2019), *CCCS Guidelines on Price Transparency: Draft*, https://www.cccs.gov.sg/media-and-consultation/newsroom/media-releases/otb-and-price-transparency-guidelines-30-sept-19.

[71]

CCCS (2019), *Online Travel Booking Sector in Singapore*, https://www.cccs.gov.sg/resources/publications/market-studies.

[70]

Citizens Advice (2016), *Consumer Detriment: Counting the cost of consumer problems*, https://www.citizensadvice.org.uk/Global/CitizensAdvice/Consumer%20publications/Final_ConsumerDetriment_OE.pdf.

[34]

Civic Consulting (2011), *Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods*, http://www.civic-consulting.de/reports/study_ecommerce_goods_en.pdf (accessed on 12 August 2019).

[91]

CMA (2016), *Care homes market study*, Competition and Markets Authority cases, https://www.gov.uk/cma-cases/care-homes-market-study (accessed on 12 August 2019).

[57]

CMA (2016), *Evaluation of the OFT's enforcement action on health and fitness contract*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/557129/evaluation-report-of-oft-action-in-gyms-sector.pdf (accessed on 9 August 2019).

[58]

CMA (2016), *Wedding and event venue providers: letter from the CMA on contract terms*, GOV.UK, https://www.gov.uk/government/publications/wedding-and-event-venue-providers-letter-from-the-cma-on-contract-terms (accessed on 12 August 2019).

[62]

CMA (2015), *Short-term car rental in the European Union*, Competition & Markets Authority, London, http://www.nationalarchives.gov.uk/doc/open-government- (accessed on 12 August 2019).

[59]

Competition and Consumer Protection Commission (2014), *Study of consumer detriment in Ireland*, https://www.ccpc.ie/consumers/2014/12/10/study-consumer-detriment-ireland/.

[33]

Consumer Affairs Agency (2018), *Experience of consumer harm and problems / estimated amounts of losses from harm and problems*, https://www.caa.go.jp/en/publication/annual_report/2018/white_paper_summary_04.html. [35]

Consumer Affairs Victoria (2011), *Consumer Confidence and Market Experience Study 2010 – 2011*, https://www.consumer.vic.gov.au/resources-and-tools/research-studies. [15]

Consumer Affairs Victoria (2006), *Consumer detriment in Victoria: a survey of its nature, costs and implications*, https://www.consumer.vic.gov.au/library/publications/resources-and-education/research/consumer-detriment-in-victoria-a-survey-of-its-nature-costs-and-implications-2006.pdf. [27]

Deliema, M. et al. (2019), *Exposed to Scams: What separates victims from non-victims?*, https://www.bbb.org/globalassets/local-bbbs/council-113/media/financial-fraud/pdf/ScamTrackerIssueBrief-ExposedToScams-09.12.19.pdf. [26]

Department for Business Innovation and Skills (2014), *Consumer Engagement and Detriment Survey 2014*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/319043/bis-14-881-bis-consumer-detriment-survey.pdf. [31]

Duch-Brown, N. and B. Martens (2016), *The Economic Impact of Removing Geo-blocking Restrictions in the EU Digital Single Market*, Join Research Centre, European Commission, https://ec.europa.eu/jrc/sites/jrcsh/files/JRC101100.pdf (accessed on 12 August 2019). [90]

EC (2019), *Consumer Conditions Scoreboard: Consumers at home in the Single Market: 2019 Edition*, https://ec.europa.eu/info/sites/info/files/consumers-conditions-scoreboard-2019_en_1.pdf. [16]

EC (2018), "Consumer market study on online market segmentation through personalised pricing/offers in the European Union", http://dx.doi.org/10.2818/990439. [41]

EC (2018), "Impact Assessment on the "New Deal for Consumers"", No. Document 52018SC0096, European Commission, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52018SC0096. [88]

EC (2017), *Consumer Conditions Scoreboard: Consumers at home in the Single Market: 2017 Edition*, European Commission, https://ec.europa.eu/info/sites/info/files/consumer-conditions-scoreboard-2017-edition_en_0.pdf. [74]

EC (2017), *Operational guidance document on measuring personal consumer detriment*, Civic Consulting, Brussels, https://ec.europa.eu/info/sites/info/files/consumer-detriment-study-final-report-part-2-guidance_en.pdf (accessed on 11 July 2019). [48]

EC (2017), *Study on Measuring Consumer Detriment in the European Union*, http://dx.doi.org/10.2818/87261. [2]

EC (2016), "Impact assessment accompanying the proposed Regulation on geo-blocking", European Commission, https://ec.europa.eu/digital-single-market/en/news/impact-assessment-accompanying-proposed-regulation-geo-blocking (accessed on 12 August 2019). [89]

EC (2015), *Identifying the main cross-border obstacles to the Digital Single Market and where they matter most: DSM consumer survey*, Directorate-General for Justice and Consumers, http://data.europa.eu/euodp/data/dataset/dsm-consumer-survey-2015 (accessed on 12 August 2019).   [87]

EC (2015), *Impact Assessment Accompanying the document: Proposals for Directives of the European Parliament and of the Council (1) on certain aspects concerning contracts for the supply of digital content and (2) on certain aspects concerning contracts for the online and other distance sales of goods*, European Commission, Brussels, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015SC0274R(01)&from=EN (accessed on 12 August 2019).   [85]

EC (n.d.), *Consumer Scoreboards*, https://ec.europa.eu/info/policies/consumers/consumer-protection/evidence-based-consumer-policy/consumer-scoreboards_en.   [20]

EC (n.d.), *Safety Gate: the rapid alert system for dangerous non-food products*, https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm.   [44]

EC (n.d.), *Sweeps*, https://ec.europa.eu/info/live-work-travel-eu/consumers/enforcement-consumer-protection/sweeps_en.   [54]

EC (n.d.), "Tool #4. Evidence-Based Better Regulation", in *Better Regulation Toolbox*, http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/sp/h2020-sp_en.pdf; (accessed on 11 July 2019).   [52]

Égert, B. and P. Gal (2016), "The Quantification of Structural Reforms in OECD Countries: A New Framework"*, Economics Department Working Papers*, No. 1354, OECD, http://www.oecd.org/eco/workingpapers (accessed on 14 July 2019).   [84]

Europe Economics (2007), *An analysis of the issue of consumer detriment and the most appropriate methodologies to estimate it*, http://www.europe-economics.com/publications/study_consumer_detriment.pdf.   [14]

European Parliamentary Research Service (2017), *Mapping the Cost of Non-Europe, 2014-19*, European Parliament, http://dx.doi.org/10.2861/35381.   [92]

Goldstein, D. et al. (2008), "Nudge Your Customers Toward Better Choices", *Harvard Business Review*, Vol. December, https://hbr.org/2008/12/nudge-your-customers-toward-better-choices (accessed on 8 August 2017).   [69]

Hahn, R. and J. Hird (1991), "The Costs and Benefits of Regulation: Review and Synthesis", *Yale Journal on Regulation*, Vol. 8/I, pp. 233-278, http://digitalcommons.law.yale.edu/yjreghttp://digitalcommons.law.yale.edu/yjreg/vol8/iss1/9 (accessed on 12 August 2019).   [13]

Hong, H. and M. Shum (2006), "Can Search Cost Rationalize Equilibrium Price Dispersion in Online Markets?", *Rand Journal of Economics*, Vol. 37/2, pp. 258-276, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.15.5264&rep=rep1&type=pdf (accessed on 14 July 2019).   [72]

ICF GHK (2013), *Consumer rights and economic growth: ICF GHK report*, http://www.ghkint.com (accessed on 14 July 2019). [98]

ICPEN (2017), *Impact Assessment: Information document for ICPEN Members*. [56]

Ipsos (2006), *Consumer Detriment Survey*, https://www.consumer.vic.gov.au/resources-and-tools/research-studies. [28]

Koulayev, S. (2009), "Estimating Demand in Search Markets: The Case of Online Hotel Bookings", *FRB of Boston Working Paper*, No. 09-16, http://dx.doi.org/10.2139/ssrn.1523926. [73]

Kumara Bhat, S. and A. Culotta (2017), *Identifying Leading Indicators of Product Recalls from Online Reviews Using Positive Unlabeled Learning and Domain Adaptation*, http://www.aaai.org (accessed on 12 July 2019). [45]

Laibson, D. (2012), *Drip pricing: A behavioral economics perspective*, Federal Trade Commission (US), https://www.ftc.gov/sites/default/files/documents/public_events/economics-drip-pricing/dlaibson.pdf (accessed on 4 August 2017). [38]

Mintel (2015), *Holiday Car Hire - UK - May 2015 - Market Research Report*, https://reports.mintel.com/display/715829/ (accessed on 12 August 2019). [60]

Moody's (2015), *Research: Announcement: Moody's: Tourists to drive growth in European car rental market by nearly 3% in 2015-16*, https://www.moodys.com/research/Moodys-Tourists-to-drive-growth-in-European-car-rental-market--PR_328850 (accessed on 12 August 2019). [61]

OECD (2019), *Household spending*, https://data.oecd.org/hha/household-spending.htm. [77]

OECD (2018), *Enhancing product recall effectiveness globally: OECD background report*, OECD, Paris, http://dx.doi.org/10.1787/23074957. [46]

OECD (2018), "Improving online disclosures with behavioural insights", *OECD Digital Economy Papers*, No. 269, OECD Publishing, Paris, https://dx.doi.org/10.1787/39026ff4-en. [82]

OECD (2017), "Trust in peer platform markets: Consumer survey findings", *OECD Digital Economy Papers*, No. 263, OECD Publishing, Paris, https://dx.doi.org/10.1787/1a893b58-en. [3]

OECD (2017), "Use of Behavioural Insights in Consumer Policy", *OECD Science, Technology and Industry Policy Papers*, No. 36, OECD Publishing, Paris, https://dx.doi.org/10.1787/c2203c35-en. [42]

OECD (2016), *OECD Recommendation of the Council on Consumer Protection in E-Commerce*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264255258-en. [11]

OECD (2015), *METRO Version 1 Model Documentation*, OECD, Paris, http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC/WP(2014)24/FINAL&docLanguage=En (accessed on 14 July 2019). [94]

OECD (2015), "Diffusion of online purchases including via handheld devices, 2007 and 2014: Individuals having ordered goods or services online as a percentage of all individuals", in *OECD Digital Economy Outlook 2015*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264232440-en. [79]

OECD (2014), *Factsheet on how competition policy affects macro-economic outcomes*, OECD Publishing, Paris, http://oe.cd/J3 (accessed on 26 June 2019). [78]

OECD (2014), *Guide for helping competition authorities assess the expected impact of their activities*, https://www.oecd.org/daf/competition/Guide-competition-impact-assessmentEN.pdf (accessed on 15 July 2019). [53]

OECD (2014), *OECD Recommendation on Consumer Policy Decision Making*, http://www.oecd.org/sti/consumer/Toolkit-recommendation-booklet.pdf (accessed on 12 February 2018). [1]

OECD (2013), "OECD Consumer Policy Toolkit Workshop on Communication Services: Summary of Proceedings"*, OECD Digital Economy Papers*, No. 221, OECD Publishing, Paris, https://dx.doi.org/10.1787/5k480t1g546j-en. [7]

OECD (2013), *Product risk assessment practices of regulatory agencies*, http://www.oecd.org/sti/consumer/product-risk-assessment-practices-regulatory-agencies.pdf. [55]

OECD (2012), *Enhancing Consumer Policy Making: The Role of Consumer Complaints*, OECD, Paris, http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP(2011)22/FINAL&docLanguage=En (accessed on 20 June 2019). [9]

OECD (2012), *Enhancing Consumer Policy Making: The Role of Consumer Surveys*, OECD, Paris, http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/CP(2011)3/FINAL&docLanguage=En (accessed on 20 June 2019). [10]

OECD (2010), *Consumer Policy Toolkit*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264079663-en. [6]

OECD (2008), *Introductory Handbook for Undertaking Regulatory Impact Analysis (RIA)*, OECD Publishing, Paris, https://www.oecd.org/gov/regulatory-policy/44789472.pdf (accessed on 27 June 2019). [83]

OECD (2007), "Report on Second Roundtable on Economics for Consumer Policy"*, OECD Digital Economy Papers*, No. 132, OECD Publishing, Paris, https://dx.doi.org/10.1787/230744208356. [5]

OECD (2006), *Roundtable on Demand-Side Economics for Consumer Policy: Summary Report*, http://www.oecd.org/sti/consumer/36581073.pdf (accessed on 5 February 2018). [4]

OECD (2005), *Enhancing Competition in Telecommunications: Protecting and Empowering Consumer*, http://www.oecd.org/dataoecd/31/46/36581073.pdf. (accessed on 4 August 2017). [8]

OECD (n.d.), *Global Portal on Product Recalls*, https://globalrecalls.oecd.org/#/.   [43]

OECD (n.d.), *Improving online disclosures with behavioural insights*.   [99]

OECD (n.d.), *METRO trade model*, OECD, https://www.oecd.org/trade/topics/metro-trade-model/ (accessed on 14 July 2019).   [93]

OECD (n.d.), *NAEC Innovation Lab: Workshop on agent based modelling: applications in labour markets*, https://www.oecd.org/naec/Agent-based_models_background.pdf (accessed on 14 July 2019).   [95]

Ofcom (2016), *Review of how we use our persistent misuse powers: Focus on silent and abandoned calls*, Ofcom, https://www.ofcom.org.uk/consultations-and-statements/category-1/review-of-how-we-use-persistent-misuse-powers (accessed on 19 August 2019).   [23]

Office of Fair Trading (2008), *Consumer detriment: Assessing the frequency and impact of consumer problems with goods and services*, https://webarchive.nationalarchives.gov.uk/20140402190150/http:/www.oft.gov.uk/shared_oft/reports/consumer_protection/oft992.pdf.   [30]

Office of Fair Trading (UK) (2010), *Advertising of Prices*, http://webarchive.nationalarchives.gov.uk/20140402173016/http://oft.gov.uk/shared_oft/market-studies/AoP/OFT1291.pdf (accessed on 2 August 2017).   [39]

Ofgem (2019), *Consumer Impact Report: Financial Year 2018-19*, https://www.ofgem.gov.uk/system/files/docs/2019/06/20190626_consumer_impact_report.pdf (accessed on 26 September 2019).   [76]

Ofgem (2018), *Consumer Impact Report: Financial Year 2017-18*, https://www.ofgem.gov.uk/system/files/docs/2018/07/consumer_impact_report_-_published0307.pdf (accessed on 26 September 2019).   [75]

OFT (2010), *A guide to OFT's Impact Estimation methods*, Office of Fair Trading, UK, https://webarchive.nationalarchives.gov.uk/20140402172157/http://www.oft.gov.uk/OFTwork/publications/publication-categories/reports/Evaluating/oft1250 (accessed on 3 July 2019).   [63]

OFT (2010), *The impact of price frames on consumer decision making*, Office of Fair Trading, London, https://webarchive.nationalarchives.gov.uk/20140402165040/http://oft.gov.uk/shared_oft/economic_research/OFT1226.pdf (accessed on 9 August 2019).   [40]

OFT (2000), *Consumer Detriment*.   [47]

Ormosi, P. (2012), "Stocktaking on Evaluation"*, Working Party No. 2 on Competition and Regulation*, OECD, Paris, http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP2%282012%295&doclanguage=en (accessed on 9 August 2019).   [12]

Productivity Commission (2008), *Review of Australia's Consumer Policy Framework*, Productivity Commission, Canberra, http://www.pc.gov.au/inquiries/completed/consumer-policy/ (accessed on 6 July 2017).

[97]

Raval, D. (2019), "Which Communities Complain to Policymakers? Evidence from Consumer Sentinel", *Economic Inquiry*, https://doi.org/10.1111/ecin.12838.

[17]

Shelanski, H. et al. (2012), "Economics at the FTC: Drug and PBM Mergers and Drip Pricing", *Review of Industrial Organization*, Vol. 41/4, pp. 303-319, http://dx.doi.org/10.1007/s11151-012-9360-x.

[51]

Statistics Canada (2019), *Special tabulation*.

[25]

The Australian Government the Treasury and EY Sweeney (2016), *Australian Consumer Survey 2016*, http://www.consumerlaw.gov.au/sites/consumer/files/2016/05/ACL-Consumer-Survey-2016.pdf (accessed on 13 September 2019).

[21]

Thorun, C. et al. (2017), *Indicators of consumer protection and empowerment in the digital world*, ConPolicy GmbH, Berlin, https://www.bmjv.de/G20/DE/ConsumerSummit/_documents/Downloads/Studie.pdf;jsessionid=4B40AED34D25B03591746872B48A10FB.1_cid334?__blob=publicationFile&v=1 (accessed on 9 July 2019).

[22]

UNCTAD (2016), *United Nations Guidelines for Consumer Protection*, United Nations, New York and Geneve, https://unctad.org/en/PublicationsLibrary/ditccplpmisc2016d1_en.pdf (accessed on 27 June 2019).

[81]

US FTC (2019), *Consumer Sentinel Network Data Book 2018*, Federal Trade Commission, Washington, https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2018/consumer_sentinel_network_data_book_2018_0.pdf (accessed on 9 August 2019).

[19]

US FTC (2017), *Agency Financial Report: Fiscal Year 2017*, https://www.ftc.gov/system/files/documents/reports/agency-financial-report-fy2017/ftc_agency_financial_report_fy2017_0.pdf (accessed on 14 July 2019).

[64]

US FTC (2017), *Office of Claims and Refunds Annual Report 2017*, Federal Trade Commission, https://www.ftc.gov/system/files/documents/reports/bureau-consumer-protection-office-claims-refunds-annual-report-2017-consumer-refunds-effected-july/redressreportformattedforweb122117.pdf (accessed on 14 July 2019).

[65]

US FTC (2013), *Consumer Fraud in the United States, 2011: The Third FTC Survey*, Federal Trade Commission, Washington, https://www.ftc.gov/sites/default/files/documents/reports/consumer-fraud-united-states-2011-third-ftc-survey/130419fraudsurvey_0.pdf (accessed on 10 September 2019).

[32]

Endnotes

[1] The AG is composed of representatives from Brazil, Canada, Columbia, the European Commission, Israel, the Netherlands, Peru, Portugal, Sweden, the United Kingdom, and the United States.

[2] Using data from the Centre for Aviation for 2018.

[3] Using data from the Singapore Tourism Board for 2018.