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USE OF BEHAVIOURAL INSIGHTS IN CONSUMER POLICY

OECD SCIENCE, TECHNOLOGY AND INNOVATION
POLICY PAPERS

January 2017 **No. 36**

OECD

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FOREWORD

This report examines how behavioural insights have been used by governments and other public policy organisations within their consumer policy making process and policy initiatives. It also identifies challenges to applying behavioural insights to policies. This report reflects the responses to a questionnaire to the Committee on Consumer Policy (CCP).

This report also benefited from the discussion at the *Roundtable on Behavioural Insights and Consumer Policy* held at the 91st session of the Committee on Consumer Policy in April 2016. Dr. Pete Lunn (Behavioural Economist, Economic and Social Research Institute, Ireland) moderated the roundtable; Ms. Elizabeth Hardy (Lead, Behavioural Insights, Innovation Hub, Privy Council Office, Canada), Dr. Charlotte Duke (Partner, London Economics), Dr. Anne-Lise Sibony (Professor of EU Law, University of Louvain), Dr. Andrew Stivers (Deputy Director for Consumer Protection in the Bureau of Economics at the Federal Trade Commission, United States), Ms. Magdalena Lazcano (Legal Counsel of the National Direction, Servicio Nacional del Consumidor, Chile), Mr. Tamás A. Molnár (Adviser on International Consumer Issues, European Commission) participated as speakers.

This report was drafted by Rieko Tamefuji of the OECD Secretariat. It was approved and declassified by the CCP on 30 November 2016. It was prepared for publication by the OECD Secretariat.

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EXECUTIVE SUMMARY

More than ten years have passed since the OECD Committee on Consumer Policy (CCP) began to examine the benefits of behavioural insights for consumer policy. During that period the use of behavioural insights in the design and delivery of public policy has increased significantly across a number of policy domains, including consumer policy. An increasing number of countries are bringing in expertise on behavioural insights to help shape consumer policy and this report considers those efforts. More particularly, the report: *i)* examines how governments and other public policy organisations are implementing behavioural insights within their consumer policy making process; *ii)* collects and analyses case studies where behavioural insights have informed policy initiatives; and *iii)* identifies challenges to applying behavioural insights. The report is based on the responses to a questionnaire to the CCP, a *Roundtable on Behavioural Insights and Consumer Policy* held at the 91st session of the CCP in April 2016 and additional research by the Secretariat.

The terms "behavioural economics" and "behavioural insights" are closely related and often used interchangeably. They do not, however, have exactly the same meaning. Behavioural economics is generally understood as the incorporation of psychological insights into the study of economic problems. Behavioural insights often involve multidisciplinary research in fields such as economics, psychology, neuroeconomics and marketing science to understand consumer behaviour and decision making. In this report, the term "behavioural insights" is used to reflect the breadth of this field.

For consumer policy makers, the use of behavioural insights, and the evidence-based approach it exemplifies, are particularly notable when defining a consumer problem and its source, and when developing effective policy implementation. There are several ways to reflect behavioural insights in the policy making process. One common technique is the use of consumer behavioural surveys. The behavioural surveys identified in this report are mostly focused on improving the understanding of consumer behaviour and consumer decision making. There have been several cases where similar surveys have been conducted on a regular basis to enable time-series comparisons. Surveys are also used to develop effective policy implementation, for instance, when identifying the type of labelling that is least likely to cause consumer confusion.

Another way is through consumer behavioural experiments such as laboratory experiments and randomised control trials (RCTs). Although still limited, the number of cases using experiments is increasing. Examples include experiments to help: *i)* assess the effect of commercial practices on consumer behaviour and understand how consumers may behave irrationally (*e.g.* drip pricing or advertisements in online games); *ii)* choose effectively among various policy options; *iii)* decide on the most effective presentation of a disclosure (e.g. product labelling, terms and conditions, and price information); and *iv)* to identify ways to increase consumer participation on a project designed to help consumers.

In terms of policy implementation, the report covers interventions informed by behavioural insights that include: *i)* enforcement actions; *ii)* new regulations; and *iii)* consumer empowerment initiatives and consumer education. Many of the initiatives noted in this report are based on a review of previously existing behavioural research and evidence; initiatives that are actually tested by behavioural experiments and/or surveys before their implementation are still rare.

Regarding enforcement actions, some consumer authorities have used work on behavioural insights to inform their understanding of deceptive and unfair commercial practices. For example, there are a number of enforcement actions that relate to drip pricing in the online market, which is a price advertising technique that might trigger behavioural biases.

With respect to regulations informed by behavioural insights, consumer authorities have prohibited businesses from conducting commercial practices that might trigger behavioural biases in specific markets such as e-commerce market and credit card industry. Behavioural biases including default and status quo effect, hyperbolic discounting, overconfidence and framing have been addressed in regulations.

In terms of consumer empowerment initiatives and consumer education, some consumer authorities help consumers by providing them with tools to mitigate the effect of behavioural biases. There are cases where businesses are required to provide consumers a simplified version of a consumer contract, and where consumers are given access to their consumption data to enhance their understanding of purchasing choices. Consumer education initiatives can be informed by behavioural insights and be designed with behavioural biases in mind.

Applying behavioural insights to consumer policy may raise new challenges and some aspects may require further consideration by policy makers. For instance, the introduction of behavioural experiments may raise concerns about external and internal validity, and it is often difficult to define what is best for consumers in a policy context. Interventions informed by behavioural insights (*e.g.* nudges) could be exposed to criticisms of manipulation. Consumer authorities that are new to behavioural insights may face challenges such as lack of time and resources and the need for capacity building. Policies informed by behavioural insights often focus on consumer behaviour. However, there are other stakeholders such as businesses and government agencies that may themselves be subject to behavioural biases. Finally, consumers and businesses are not uniform which suggests that policies informed by behavioural insights that work for certain group of consumers might not work for other groups.

This report concludes that, over the past decade, behavioural insights have helped make consumer policy making more evidence-based and effective. However, its use is still limited both in terms of the number of jurisdictions that have incorporated behavioural insights in policy making and in the range of policy areas to which it has been applied. In terms of policy areas, the use of behavioural insights has so far been mainly observed in areas of labelling and information disclosure issues, typically for price representation and in e-commerce. Areas for further development might include, for example, consumer education and product safety. Likewise, further consideration could be given to measuring and evaluating the impact of policy interventions informed by behavioural insights.

USE OF BEHAVIOURAL INSIGHTS IN CONSUMER POLICY

I. Introduction

This report is based on Member country responses to the questionnaire[1] that was circulated to delegates in December 2015 (see Annex), a *Roundtable on Behavioural Insights and Consumer Policy* held at the 91st session of the Committee on Consumer Policy (CCP) in April 2016 and research carried out by the Secretariat. The purpose of this report is to:

- Examine how governments and other public policy organisations are implementing behavioural insights within their consumer policy making process;
- Collect and analyse case studies where behavioural insights informed policy responses; and
- Identify challenges to apply behavioural insights to consumer policy.

The CCP has been a pioneer in exploring the links between demand-side economics and consumer policy. The CCP held its first roundtable on this topic in 2005 (*Roundtable on Demand-side Economics for Consumer Policy*), which explored both information and behavioural economics. At that time, the CCP recognised that behavioural economics: *i)* may explain how market failures can result from consistent biases in consumer behaviour; and *ii)* offers new insights for consumer policy but requires more consideration before it is widely used in policies (OECD, 2006). Building on this first roundtable, the CCP organised a second roundtable in 2006 (*Roundtable on Economics of Consumer Policy*). The CCP concluded that policy makers should take into account consumer behaviour in designing market interventions but cautioned that policy makers should take care not to distort consumer decision making (OECD, 2007).

Subsequently, the CCP examined how information and behavioural economics can be used alongside neo-classical approaches to improve responses to consumer problems in the *Consumer Policy Toolkit*, published in 2010. Based on that work, the OECD Recommendation of the Council on Consumer Policy Decision Making recognised the "important insights that have been gained into the nature of consumer problems through advances in information and behavioural economics, and the benefits of drawing on these insights in developing, implementing and reviewing consumer policies" (OECD, 2014).

The newly adopted 2016 OECD Recommendation on Consumer Protection in E-commerce also recognises the importance of insights gained from information and behavioural economics for consumer policy making in e-commerce (OECD, 2016).

Within the OECD, work on behavioural economics extends well beyond the area of consumer policy. The cross-cutting project on New Approaches to Economic Challenges (NAEC) notes the importance of reviewing assumptions about risk and behaviour with greater realism as markets and consumers may not always be self-correcting. The Regulatory Policy Committee, the Financial Markets Committee, and the Environment Policy Committee are also involved in projects on this topic (OECD, 2015*a*).

An important aspect of behavioural economics is that it questions assumptions from traditional economics related to the role of "rationality" and its impact on consumer behaviour. In traditional

economics, it is assumed that consumers know their preferences, those preferences are stable, that consumers only care about their own welfare, and are able to use available information to make optimal decisions. Building on psychological research, behavioural economics goes beyond these assumptions and describes how people sometimes fail to behave in their own best interests (OECD, 2007 and 2010). Behavioural economics reveals that consumers sometimes fail to behave rationally due to behavioural biases: some of the main behavioural biases that are relevant to consumer policy are described in Box 1. Although they are called "biases" -- consistent with behavioural economics literature -- the use of this term should not be understood to mean that these biases always lead consumers to wrong decisions. For instance, "choice/information overload" indicates that consumers may rely on "heuristics" to make decisions when facing complex products or a bewildering number of choices. This may make consumers take quick decisions without considering possible good choices and sometimes even to walk away from the market entirely. However, in many cases, using heuristics is an efficient way to reach a good decision quickly (OECD, 2010).

The terms "behavioural economics" and "behavioural insights" are both often used when discussing this field. Those two terms are closely related; however, they do not have exactly the same meanings. While there is no universally-agreed definition of behavioural economics, a widely accepted formulation describes behavioural economics as the incorporation of psychological insights into the study of economic problems (Lunn, 2014). Behavioural insights often involve multidisciplinary research in fields, such as economics, psychology, neuroeconomics, and marketing science, to understand consumer behaviour and decision making (EC, 2016*a*).

Indeed, some argue that the term "behavioural economics" could be confusing. For instance, Thaler, who is considered a pioneer in the field of behavioural economics and finance, argues that policies or initiatives that are generally explained as being based on behavioural economics by the United Kingdom-based Behavioural Insights Team do not always involve that much economics: the point is to utilise the findings from other social sciences to improve advice provided by economists (Thaler, 2015).

The CCP has been looking into behavioural economics for more than 10 years, including in its 2010 *Consumer Policy Toolkit*. Although many of the initiatives presented in this report could be explained under the term "behavioural economics", to reflect the breadth of this field, this report will use the term "behavioural insights".

As indicated in the *OECD Consumer Policy Toolkit*, another area useful for consumer policy is information economics, which is based on traditional economics. Generally speaking, information economics is the extension of the standard neoclassical theory to view information as a scarce resource that can be analysed in ways similar to other commodities in the market. It is different from behavioural economics in the sense that consumers are viewed as knowing their preferences and adopting consistent ways of achieving them. It suggests that consumers seek out useful information, but because searching information is costly and time consuming, they generally do not acquire all possible information before purchasing a good or service. The fact that consumers do not have sufficient information about the products and prices is an important source of market failure (OECD, 2010). Despite the differences between information economics and behavioural economics concerning the role of rationality in consumer decision-making, those two areas of economics are related to each other in the sense that they both discuss information provided to consumers. In fact, a large amount of literature in the area of information economics analyses how imperfect information affects market outcomes; for instance, issues around "information asymmetries" between sellers and consumers which may lead to negative outcomes for consumers have been analysed. Having this in mind, the OECD questionnaire for this project included questions on how consumer authorities utilise information economics and how they decide whether to use behavioural insights or information economics. A summary of information gathered from the responses regarding information economics are presented in Box 2.

The importance to policy makers of having access to expert advice on behavioural insights is increasingly being recognised. This can be done by: *i)* having a team specialised in behavioural insights outside the consumer authority which supports applying behavioural insights across a wide range of government agencies; *ii)* having economists and researchers within consumer authorities; and/or *iii)* creating network among different ministries and agencies which work on behavioural insights. Examples are presented in Table 1.

Cross-governmental behavioural insight teams have been established in several countries, notably in Canada, the United Kingdom and the United States. Those teams work with multiple government agencies, including consumer authorities, to help provide reliable evidence for what will work and what will not work using behavioural insights. This has been done primarily through conducting experiments, especially randomised controlled trials (RCTs), in the context of governmental programs. One notable example is the Behavioural Insights Team in the United Kingdom (UK), which was first established within the Cabinet Office in 2010. It functions more like an internal public sector consultancy, working both for the central government and public sector agencies at the local level (Lunn, 2014). The Team has run over 150 RCTs in a wide range of policy areas. One of the earliest research projects done by the Behavioural Insights Team focused on consumer empowerment and included the development of tools that enable consumers to access the data businesses hold on them. Since February 2014, the Team has been turned into a social purpose company which is partly owned by the Cabinet Office (Behavioural Insights Team, United Kingdom, 2015).

Recently, additional jurisdictions have decided to create centralised behavioural insight teams to work with various policy areas across ministries. In 2014, the United States (US) created the Social and Behavioural Science Team (SBST) within the White House Office of Science and Technology Policy. The SBST was established by an executive order that also directed federal agencies to apply behavioural insights into their policies and programs where appropriate. Working with federal agencies, the SBST runs RCTs for most of their projects to identify ways to help achieve agency objectives. For the first year, the Team focused on projects to streamline access to programs, such as retirement, and to improve government efficiency (SBST, US, 2015). During its second year, the SBST worked on policy challenges such as improving access to affordable health insurance and responding to climate change, for example, through supporting consumer adoption of renewable energy sources. There were also projects related to consumer debt such as projects for helping student loan borrowers manage their debt. (SBST, US, 2016).

Box 1. Examples of behavioural biases related to consumer policy

Choice/information overload: When faced with either complex products or a bewildering array of choices, consumers can sometimes ignore possible choices, walk away from markets, or choose not to choose. Consumers can also rely on relatively simple "rules of thumb" or "heuristics" to make decisions.

Default and status quo effect: Presenting one choice as default option can induce consumers to choose that option. The power of default is related to the status quo effect, where consumers have a strong tendency to remain at the status-quo, since the disadvantage of leaving it loom larger than advantages of leaving.

Endowment effect: Consumers often demand much more to give up an object than they would be willing to pay to acquire it. The value of a good for consumers increases when it becomes a part of a consumers' endowment.

Anchoring: Consumers "anchor" decisions around information that they think is the most important. Consumers may fail to adjust their perception of the value of the offer sufficiently, even when additional information is provided to them, since they cannot stray far from the anchor point.

Framing: Consumers are influenced not only by the content of the information provided by suppliers but also by how the information is presented. Presenting an option in a certain way may induce consumers to evaluate the choice from a particular reference point.

Priming effect: When consumers are repeatedly exposed to certain objects, for example, through publicity, certain attributes can play an undue role in consumer decisions. Priming can influence preferences by making certain dimensions salient that would otherwise have been considered as less important.

Overconfidence: Consumers tend to think that they are more likely to experience an outcome from some action that is better than the average expected outcome. For example, many drivers think that they are safer than the average person, and when consumers are told that 20% of customers will benefit from a particular product, they tend to expect that they will be the part of that 20%.

Hyperbolic discounting / myopia: Consumers' discount rate tends to rise steeply the shorter the time period being considered. This means that consumers tend to treat the present as if it were more important than other time periods. This explains outcomes such as low retirement savings in the absence of compulsion.

Time-inconsistency: While traditional economics assumes that consumers behave in a time-consistent way, *i.e.* that they are able to make decisions knowing their long-term interest and resist short-term actions that go against that, in reality, choices are not consistent across time periods. Consumers may face a conflict between short-term urges and long-term interests.

Fairness: Consumers are generally concerned that market transactions should be fair to other consumers and often concerned about the conditions of supply (e.g. labour condition, use of environmental resources). This means that consumers are concerned not only about their own interest.

Social norms: Consumers are often guided by the values, actions, and expectations of a particular society or group. For example, when people are made aware of what others are doing, it can reinforce individuals' underlying motivations.

Source : Kahneman et al (1991), OECD (2006), OECD (2007), OECD (2010), UK OFT (2012a), McAuley (2013), Oxera (2013), Shafir (2008), Behavioural Insights Team (UK) (2014)

Box 2. Information economics and behavioural economics

In the responses to the OECD questionnaire, several jurisdictions mentioned that initiatives that were informed by behavioural insights were also informed by information economics, and that both are necessary. Therefore, it is difficult to draw clear lines between policies that draw upon information economics and behavioural insights.

For example, the "Midata" initiative in the United Kingdom (explained in section III), which enable consumers to access and use data held about them by businesses, is considered to draw upon insights from information economics, namely "information asymmetries", as well as behavioural economics. The UK government considered that the fact that businesses can easily collect and analyse data on consumers' purchases and characteristics by using modern IT may create an "information asymmetry" whereby businesses know more about consumers' consumption habits than they do. Businesses may use this advantage to construct offers or tariffs that consumers will overvalue or fail to grasp the costs they bear. The UK government also took into account behavioural economics to explain cases where consumers are unlikely to switch even if it is more beneficial to do so.

In the responses to the questionnaire, some jurisdictions explained their ways of understanding the linkages between behavioural economics and information economics. For instance:

- Information economics can predict how consumers will respond to changes in available information. However, responses to amounts and quality of information are often, if not always, influenced by the "context" and this is where behavioural economics can help understanding consumers' responses to information available.

- Behavioural economics can be considered as an extension of the application of research and principles from information economics. For example, while information economics might suggest that full disclosure to consumers should be mandatory, behavioural economics suggests that in order to be useful such disclosures must take into account behavioural biases.

Source : Department for Business Innovation and Skills and Behavioural Insights Team, UK (2011 and 2012), Responses to OECD questionnaire (2016).

Table 1. Examples of jurisdictions with team/economists/researchers on behavioural insights

	Outside consumer authority		Within consumer authority	
Australia	X	Behavioural Economics Team, Department of Prime Minister and Cabinet		
Canada	X	Innovation Hub, Privy Council Office		
Province of Ontario (Canada)			X	Consumer Protection Ontario, Government of Ontario
Chile	X	Laboratorio de Gobierno	X	Servicio Nacional del Consumidor
France	X	Secretariat-General for Government Modernisation		
Germany	X	Staff of Policy Planning Unit, the Federal Chancellery	X	Advisory Council for Consumer Affairs, Federal Ministry of Justice and Consumer Protection
Israel			X	
Netherlands	X	Behavioural Insights Network	X	Authority for Consumers and Market
Norway			X	
United Kingdom	X	Behavioural Insights Unit	X	
United States	X	Social and Behavioural Science Team, White House Office of Science and Technology Policy	X	Bureau of Economics, FTC
European Union	X	EC Joint Research Centre	X	DG Justice and Consumers

Source: Responses to OECD questionnaire (2016), Behavioural Insights Team, UK (2015), Social and Behavioural Sciences Team, US (2015), Behavioural Economics Team, Australia (2016), EC (2016*a*), EC (undated), Joint Research Centre, EC (undated)

In 2015, Canada established an Innovation Hub within the Privy Council Office which has a behavioural insight team specialising in running RCTs within departments across the Government of Canada. This team has also established partnerships with Canadian universities and work with behavioural scientists outside the government to provide support when running trials (Innovation Hub, Canada, 2016*a*). Moreover, in February 2016, the Australian Government established its first central unit dedicated to the application of behavioural sciences in public policy, which is housed in the Department of Prime Minister and Cabinet (Behavioural Economics Team, Australia, 2016).

The European Commission (EC) has been applying behavioural insights to policy making since 2008. Within the EC, the Joint Research Centre (JRC) has increased its capacity in the field of behavioural insights and currently has a number of researchers/economists working on behavioural issues. More specifically, the Foresight and Behavioural Insights Unit (FBIU) was created in June 2014 in the JRC's Headquarters in Brussels. In 2015, the EC set up the EU Policy Lab which supports policies with evidence from behavioural insights, foresight and design thinking. Recently, the FBIU analysed developments in use of behavioural insights in policies in EU Member States and published *Behavioural Insights Applied to Policy: European Report 2016* (EC, 2016*a*).

There are also examples of behavioural insights teams that have been established at the regional level. In the Canadian province of Ontario, a Behavioural Insights Unit supports Ontario's ministries, including the Ministry of Government and Consumer Service, to apply behavioural insights from policy development to implementation (Province of Ontario, Canada, 2016).

Whether centralised behavioural insights team exist or not, it is also possible that economists and/or researchers within consumer authorities develop ways to apply behavioural insights into consumer policies, such as in Israel and Norway. There are some jurisdictions that have an economics bureau within the consumer authority that can help inject behavioural insights into policy work, such as in the Federal Trade Commission in the United States (US FTC). Another way is to have academics outside the government acting as advisers to consumer authorities. For instance, in Germany, the Federal Ministry of Justice and Consumer Protection has established an Advisory Council for Consumer Affairs which includes academics whose focus is on behavioural science (Federal Ministry of Justice and Consumer Protection, 2016). Likewise, the Ministry of Government and Consumer Services of the Province of Ontario has worked with academic experts to support collecting data and developing behavioural insights interventions (Province of Ontario, Canada, 2016).

Some jurisdictions are taking a network approach, and do not have centralised behavioural insights team. The advantages of this approach is to help make the best use of existing knowledge within different ministries/authorities, help bring together different insights and expertise, and increase flexibility to serve for different policy needs (OECD, 2015*b*). In the Netherlands, a Behavioural Insights Network was established in 2014, comprising 11 different ministries and regulatory bodies including consumer authorities, to promote collaboration and knowledge sharing. The behavioural insights team of the Ministry of Economic Affairs acts as a common secretariat, linking the teams and experts from different ministries (EC, 2016*a*).

II. Use of behavioural insights in the consumer policy making process

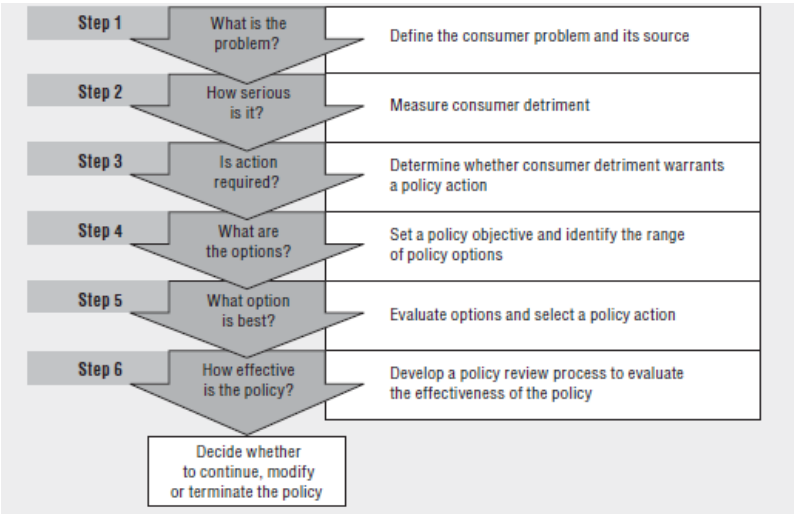
The introduction of behavioural insights to public policy has been influencing not only the policies themselves but also policy making processes. This is in line with movements towards promoting evidence-based policy making. For evidence-based policy making, one should give careful consideration on how to gather evidence, ensure its quality, communicate it effectively, or translate it into practice. Behavioural science uses empirical approaches that can help policy makers in that regard (EC, 2016*a*). The OECD Recommendation of the Council on Consumer Protection in E-commerce adopted in March 2016 notes

that governments should work towards improving the evidence base for e-commerce policy making through empirical research based on the insights gained from information and behavioural economics (OECD, 2016).

Within the policy making process, the following section suggests that behavioural insights are especially useful when defining consumer issues and their sources, when measuring consumer detriment, and when evaluating policy options and select policy action, which are three of the six steps for consumer policy making established in the *OECD Consumer Policy Toolkit* (Figure 1) (OECD, 2010).

Likewise, the EC notes that behavioural insights can be applied to various stages in the policy making process. A report by the JRC points out that behavioural insights can be used: *i)* at the design stage, when clear and evidence-based understandings of how people may react to a policy is essential; *ii)* at a later stage of policy making, including when deciding how to implement a policy; *iii)* after a particular policy option had been decided, for example, by running a small behavioural pilot study before full implementation; and *iv)* in evaluating existing policies (EC, 2013*a*). The same report also suggests that the earlier in the policy making process behavioural insights are applied, the more effective its contribution is likely to be (EC, 2013*a*).

Figure 1. Consumer policy making steps



Source: OECD (2010)

There are several ways policy makers can use behavioural insights in their policy making process. The following examples are described below: *i)* consumer behavioural experiments; *ii)* consumer behaviour surveys; and *iii)* policy evaluation frameworks. It should be noted that methods to apply behavioural insights to policy making are not limited to those three. Qualitative research such as focus groups and interviews can also be used to better understand consumer behaviour. Qualitative methods may result in richer and more nuanced data on how people think, but there is no guarantee that what has been observed could apply to the rest of the population, and usually done with small sample size because of the time and cost involved (EC, 2013*a*). Moreover, there are many cases where policy makers do not conduct experiments or surveys, but design policies explicitly building on already existing behavioural evidence (EC, 2016*a*).

It should also be noted that studies can be based on more than one methodologies; studies can benefit from combining different search methodologies such as experiments, consumer surveys, focus groups and interviews (EC, 2015*a*). For instance, a study on impact of online marketing on children (which is

discussed below) uses online experiments, surveys, focus groups, and literature review. If different methods produce the same results, the credibility of the results is thereby enhanced (EC, 2015*a*).

Consumer behaviour experiments

What are experiments and randomised control trials (RCTs)?

Behavioural insights have led to the introduction of inductive science methods to consumer policy. These include experiments, notably RCTs, which are commonly used in a number of areas such as psychology, and offer a contrast to the deductive methods of traditional economics (Lunn, 2014).

In a consumer policy context, experiments are designed to evaluate how consumers behave in different types of simulated situations (OECD, 2012). The policy maker who conducts the experiment will manipulate one element, which would be the policy option being tested, and measure the subject's specific behaviour or reaction to gauge whether that policy is likely to work in practice (EC, 2013*a*). By using experiments, policy makers will be able to examine whether the policy intervention will "nudge[2]" consumers in the direction they have predicted, and how it compares to the status quo and alternative options (London Economics, 2016). Field experiments would be better to understand absolute magnitudes, but they are not always possible to conduct, for example, due to legal impediments. Laboratory and online experiments are useful as well and easier to implement compared to field experiments (London Economics, 2016).

In the EU, the most popular methodology for quantitative analysis used in behavioural studies in recent years has been experiments (EC, 2015*a*). The act of carrying out experiments can be outsourced. Many of the behavioural studies by the EC, including ones that involve experiments, have been conducted under a framework contract to facilitate outsourcing of behavioural studies which was set up in 2012. Under this framework, the JRC has provided scientific support to the design and implementation of such behavioural studies (EC, 2015*a*). Based on such experience, the JRC has set forth seven points that government officials should consider when outsourcing behavioural studies in support of policy making (Box 3) (EC, 2015*a*).

There are some advantages to using experiments. One reason why experiments under lab conditions are preferred by scientists is that it allows extraneous variables to be controlled (Etzioni, 2011). Moreover, by manipulating individual elements and evaluating changes in consumer behaviour, policy makers can identify causal factors (*i.e.* that the change observed is due to the manipulated element and not by other factors) and not simply correlation. Another advantage is that laboratory experiments can draw statistically significant results from a relatively small sample size (EC, 2013*a*).

The simplest form of RCT is to divide a target population in two groups: the control group and the treatment group. The control group is the group without intervention (*i.e.* no substantial changes from status quo) and the treatment group is the one facing changes (*i.e.* policy intervention). RCTs can be conducted in the field (*i.e.* in real life). The key step in RCT is to ensure that the individuals in two groups are as closely matched as possible so that the two groups are equivalent with respect to all key factors such as socioeconomic status and gender. This can be done by randomly allocating individuals to control group and which receive different treatment. After the policy is introduced to and implemented within the treatment group, the outcome between the control group and treatment group can be considered solely as a result of the policy intervention (EC 2013*a*, and Behavioural Insights Team, UK, 2012). Figure 2 shows an example of an image of a RCT to test the effectiveness of new "back to work" programme which provides assistance to people who are looking for work. Targeted populations are randomly divided into two groups of the same size: the control group receives the current intervention while the treatment group is provided with the new "back to work" programme. In the case presented in Figure 2, policy makers could consider

that the new policy is effective because more people have found jobs in the treatment group (Behavioural Insights Team, UK, 2012).

Box 3. Seven points to remember when outsourcing behavioural studies

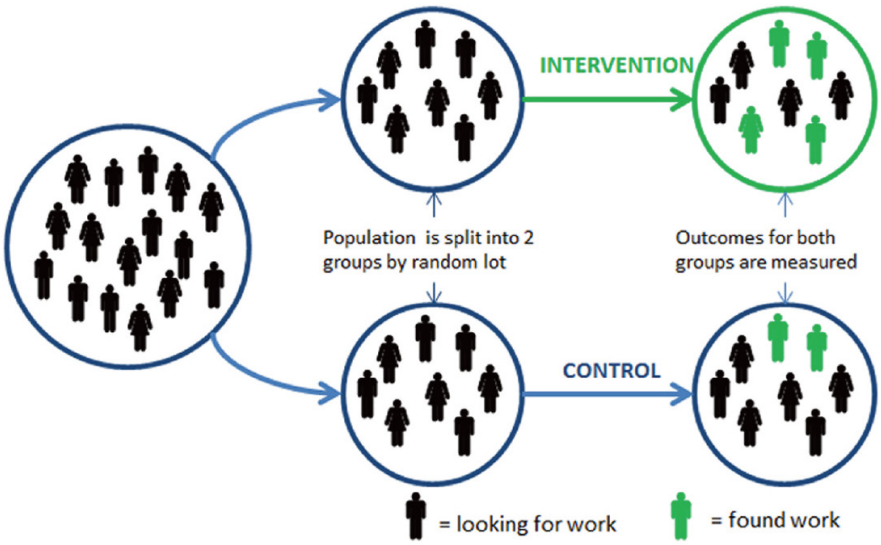
1. Identify the behavioural elements (the aspect of policy problem where human behaviour is central) as clearly as possible.
2. Participate in the choice of methodology.
3. Plan carefully to minimize changes along the way. The failure and success of a study largely depends on the design of the study.
4. Reconsider the search of "representativeness". Consider what specific population you need to target in order to get valid results, given that a sample of "representative" of general population is probably not feasible.

If conducting an experiment:

5. Be wary of too many experimental conditions. There is a trade-off between number of interventions tested and sample size per intervention.
6. Expect a null result. Consider what the consequence null result would bring to the study as a whole and how to minimize the possibility of a null result.
7. Ensure the ecological validity of experiments. An experiment will be ecologically valid if it successfully makes participants feel they are in a real-life situation. To achieve this, incentives (*e.g.* monetary incentives) could be used, but should be carefully considered.

Source : EC (2015*a*)

Figure 2. Image of example of RCT (testing a new "back to work" programme)



Source: Behavioural Insights Team, UK (2012)

According to the UK-based Behavioural Insights Team, there are 9 key steps to an RCT (Box 4).

Box 4. Nine key steps for RCTs

1. Identify two or more policy interventions to compare.
2. Define the outcome the policy is intended to influence and how it will be measured in the trial (*e.g.* examination results for certain education policy).
3. Decide on the randomisation unit (*i.e.* who or what is going to be randomised). It is usually individual people, but could be groups (*e.g*. institutions such as schools, geographical area).
4. Determine how many units are required for robust results. To draw policy conclusions, a sufficient sample size is required.
5. Assign each unit to one of the policy interventions, using a robust randomisation method. Random allocation of the units is the key which makes RCTs superior to other types of policy evaluation: it makes the control group and the treatment group equivalent with respect to all key factors such as socioeconomic status and gender.
6. Introduce the policy interventions to the assigned groups.
7. Measure the results and determine the impact of the policy interventions. The timing and method of measurement should be decided before randomisation and would vary by policy intervention,
8. Adapt the policy intervention to reflect the findings. When the results show that the policy intervention is ineffective, "rational disinvestment" should be considered.
9. Return to step 1 to continually improve understanding of what works. It is useful to think of RCTs as part of a continual process of policy innovation and improvement. Replication of result is important especially when the policy will be implemented for different population segment than that was involved in the RCTs. RCTs are also useful to identify new ways of improving outcomes.

Source : Behavioural Insights Team, Cabinet Office, UK (2012)

One of the main criticisms that laboratory experiments receive is that results apply only under the artificial conditions created in the laboratory, and may not apply in real life when the policy interventions tested are actually implemented (Etzioni, 2011). RCTs could help overcome this issue as they allow the trial to be done in a natural environment without having people participating in the experiment realise that they are examinees. Moreover, like laboratory experiments, it can establish causality (EC, 2013*a*). RCTs are often used when applying behavioural insights to public policy, has been described as the best way to test whether the policy would work well (Behavioural Insights Team, UK, 2012, and Social and Behavioral Sciences Team, US, 2015).

Experiments can be used at different stages of policy making including when: *i)* evaluating sources of problem; *ii)* evaluating policy options; and *iii)* developing effective policy implementation. Available information suggests that experiments have not been much used in many jurisdictions in the consumer policy area so far. Four jurisdictions (US, UK, Canada and EC) have conducted behavioural experiments for consumer policy purposes, while two jurisdictions (Germany and Norway) are planning to conduct them in the near future. In Canada, the Innovation Hub of the Privy Council Office is considering which projects they are running would be suitable for RCTs: areas of work include regulatory compliance, energy conservation and channel shifting.

It should also be noted that several jurisdictions which are not planning any experiments in the near future indicated that they use instead other sources as a basis for policies, including published research from external organisations such as academic institutions, consumer complaints and inquiry data.

Evaluating sources of problems

Experiments that have already been done in the field of consumer policy show that they have been used for purposes such as: *i)* to examine whether certain commercial practices may damage consumer welfare; and *ii)* to enhance better understanding of consumer behaviour such as to identify factors that influence consumer decision making. In other words, experiments can be used at the very beginning of the consumer policy making process which is defining the consumer problem and its source and measuring consumer detriment, as indicated in the *OECD Consumer Policy Toolkit* (OECD, 2010).

Experiments could be used by consumer policy makers to better understand how consumers actually behave under certain circumstances. This would cover experiments which are used to assess the effect of specific commercial practices that might trigger certain behavioural biases and prevent consumers from making the best choice. The United Kingdom Office of Fair Trading (UK OFT) conducted controlled laboratory experiments using a website created for this purpose to compare different price frames in 2010 and 2013. These included drip pricing, a price advertising technique in which additional costs are added to the price as the consumer goes through the purchasing process. The result of the behavioural experiments revealed that drip pricing is the price frame that negatively affects consumer behaviour the most: consumers tend to purchase too many or too few units than their optimal amount of purchase and tend to search too little when they should have continued searching at the next shop (UK OFT, 2010 and 2013*a*). The experiment conducted in 2010 informed enforcement action against airline companies on drip pricing resulting from last minute debit card surcharges (UK OFT, 2012*b*). It had also supported UK OFT's response to super-complaint from Which? (a consumer body in UK) related to drip pricing regarding payment surcharges; in its response in 2011, the UK OFT set out certain principles including that debit card charges should be included in the headline price (UK OFT, 2011).

In terms of analysing consumer behaviour, experiments can be helpful for understanding how and why consumers may behave irrationally. Experiments allow policy makers to observe how consumers are reacting to certain commercial practices. In that regard, experiments are sometimes used to identify factors that influence decision-making process under specific circumstances. In 2011, US FTC conducted an experiment to better understand consumer susceptibility to fraudulent advertising by using fraudulent advertisements inspired by actual cases they dealt with. In this experiment, 254 participants were shown eight different advertisements, including both plausible and implausible advertisements, and were asked to rate each advertisements' credibility (believability, truthfulness and deceptiveness) on a seven-point scale. They measured a variety of economic, psychological, and demographic variables that might affect consumers' perception of the advertisement: the study examined the role of optimism, consumer literacy, cognitive impulsivity, numeracy, confirmation bias, overconfidence, risk and loss aversion, impatience and present-bias, scepticism of advertising, and demographics and educational background. The study found that there is a positive relationship between numeracy and overconfidence, with the credibility ratings of plausible advertisements. It also pointed out that consumer literacy and scepticism were negatively associated with the credibility ratings of implausible advertisements and overconfident being positively related with the credibility ratings of implausible advertisement. Because looking at a fraudulent advertisement would be the first step for a consumer to be deceived, understanding the factors that influence susceptibility to advertisements is useful for improving consumer policies (US FTC, 2015*a*).

There are a number of academic experiments on information disclosure in the US. Of note, are two experiments, one of which examined how consumers interpret the fact that businesses do not disclose information, and the other which considered how businesses make use of consumer biases even if there are

mandatory disclosure requirements. Results from both experiments revealed that consumers failed to react to information disclosure in the rational way posited by traditional economics (Box 5) (Jin, Luca, and Martin, 2015 and 2016).

Box 5. Information disclosure experiments: missing and complex information (US)

Both experiments involve disclosure games in which:

- Senders (who could be considered as businesses) make decisions about whether and how to communicate to receivers (who could be considered as consumers). Receivers process the information sent (or not) and decide what that information means.
- Senders in the experiments learn the true quality of the product; receivers all value higher quality.
- The sender wants the receiver to believe quality is high, and the receiver wants to choose as close as possible to the true number.

Information and unraveling

The first experiment was a simple voluntary disclosure experiment. The sender could choose between disclosing to receivers the true number (*i.e.* true quality; higher numbers show higher quality) (1, 2…,5) or null (*i.e.* communicate no number), and receivers can guess the true number. The result showed that senders who received low numbers send null; but receivers who received null as the message guessed the number higher than it really was should they be acting rationally. This suggests that consumers are not as skeptical as they should be if they were rational in the absence of disclosure and tend to consider that "no news is good news".

Complex disclosure

The second experiment was on more complex disclosure which tested how complexity is used in sender-receiver games and how businesses can bias consumers even under mandatory disclosure situations. In this experiment, senders learnt the true number (1,2,…,10) and had to disclose N numbers that summed up to the truth (N=1,2,…,20) (*e.g.* if the true number is 5, senders can pick up to 20 numbers which are positive and negative that add up to 5) and could not choose null (*i.e.* mandatory disclosure). The results showed that senders increase the complexity when they receive small numbers (*i.e.* low quality). Receivers did understand that highly complex numbers indicate small true number. However, their actual guess showed that they tend to overestimate indicating that they believe the quality is higher than it really is. The gap between actual guess and true number tend to be larger for highly complex message compared to non-complex message.

Source : Jin, Luca and Martin (2015 and 2016).

Experiments are also used to enhance a better understanding of specific dimension of consumers. A study on consumer vulnerability, which was conducted by the EC and publicised in 2016, looked at the spread and causes of consumer vulnerability, with the aim of establishing a new evidence-based definition of consumer vulnerability, and finding ways to effectively address the issue. Five different research methods were used in this study including a consumer survey and behavioural experiments. These behavioural experiments focused on three key sectors: energy, finance and online environment (e.g. internet, telephone). The result of the experiments showed that 62.5% of consumers selected the best deal; however, when provided with clearer information, 69.2% of the consumers selected the best offer which was a statistically significant increase of about 7%. Another interesting element covered by the research is the link between consumers' personal and demographic characteristics and the likelihood of vulnerability. For example, it found that providing clearer information benefits older respondents (65-74 years old) more than base age group (35-44 years old) (EC, 2016*c*).

Evaluating policy options

The *OECD Consumer Policy Toolkit* suggests that, after setting policy objectives identifying practical policy options, policy makers should evaluate each option from several aspects including non-financial aspects (Figure 1) (OECD, 2010). There are examples where experiments have been used in that sense, including when assessing different policy options and in finding ways to "nudge" consumers.

Experiments are used to assess which of the several possible policy options will protect consumers in the most effective way. In 2013, the EC conducted a study using RCTs to assess the behavioural responses of consumers to several measures designed to prevent them from becoming addicted to online gambling services. This study includes two types of experiments: one laboratory experiment in one country and the other as an online experiment in seven countries in the EC. Both experiments were designed to assess the impact of pre-gamble (*i.e.* when consumers visit the website for the first time or when offered a free trial session) and in-gamble (*i.e.* in the process of actual gambling) measures on consumers' time and money spent for online gambling. Neither the laboratory nor the online experiments revealed evidence that pre-gambling treatments have an effect on consumer behaviour. Regarding in-gamble treatments, the laboratory experiment suggested that monetary-limits combined with alerts are the most effective. However, it was noted that this outcome should be treated with caution as it was only based on a single laboratory RCT in one country (EC, 2014*a*). These studies contributed to the development of Recommendations on Principles for the Protection of Consumers and Players of Online Gambling Services and for the Prevention of Minors from Gambling Online (Here after Recommendations on Online Gambling Services) that were adopted by the EC in July 2014, encouraging EU Member States to pursue a high level of consumer protection by focusing on in-gamble support for consumers (EC, 2014*b*).

In 2016, the EC publicised a study on the impact of online marketing on children's behaviour and effectiveness of consumer protection measure to alleviate consumer vulnerability in the online environment. The study involved various methods to collect data on this issue such as focus groups, survey, literature review, and also behavioural experiments. Two behavioural experiments were conducted with children from 6 to 12 years old in two Member States (Netherlands and Spain). The first experiment examined the effect of embedded advertisements in online games on children's consumption. The results revealed that such online marketing practices have significant effect on children's behaviour without them being aware of that. The second experiment investigated how exposure to prompts to make in-app purchases in online games impact children's purchasing behaviour. It found that prompts have a significant impact on children's behaviour notably by encouraging young children (8 to 9 years old) to purchase apps. In the behavioural experiments, the effect of various protective measures were investigated, suggesting that those may have positive effect on making children aware of the commercial intent of the marketing practice and breaking the flow of the game such as adding a distractive task to disengage children from the game for a second before actually making the purchase. This study will inform ongoing review of EU consumer and marketing law such as the Unfair Commercial Practices Directive (EC, 2016*b*).

Experiments can be used to inform authorities on ways nudge consumers to positively influence consumer choices. Natural Resources Canada is working with the Privy Council Office Innovation Hub on a project which aims for more efficient energy use at home. The user research and analysis conducted have identified opportunities where behavioural experiments can be conducted to improve household energy use and increase the use of energy efficiency product (Natural Resource Canada, 2016).

Participants to experiments for consumer policy purposes are not necessarily limited only to consumers. When using experiments to identify the best policy measures, there are cases where businesses are the participants. The Norwegian Consumer Council is now planning a behavioural experiment to identify the measures that would make food retailers prevent or restrict themselves from selling unhealthy

foods and beverages to children. The experiment had not been conducted yet, but is planned to be a field experiment in actual grocery stores (Norwegian Consumer Council, 2016).

Developing effective policy implementation

After deciding which policy to implement, policy makers can also employ experiments to identify the most effective way of implementation, as well as to evaluate the effectiveness of policies. With respect to policy implementation, experiments can be used to choose the most effective ways to disclose information such as a product labelling and terms and conditions, as well as to identify ways to increase consumer participation on a project designed to help consumers.

The EC ran two experiments (an online behavioural experiment and a bricks and mortar experiment) to assess the impact of the energy label on consumer understanding and on purchasing decisions. The purpose of the study was to serve as evidence for identifying the most effective labelling design for future EU energy efficiency labels. Regarding consumer understanding of the energy efficiency label, several ways of presentation were tested such as the ones using letter (*e.g.* A to G, A+++ to D label), and numeric scales (*e.g.* 30 to 100). The result of the experiments showed that the energy efficiency scale with letters is generally better understood than the one with numeric scales. Regarding consumers' choices, there was some evidence that consumers tend to choose more often energy efficient products when the energy efficiency label is presented in letters compared to when it is presented in numeric scales (EC, 2013*c*).

In terms of identifying effective presentation, the EC did an online experiment and survey on a standardised information notice regarding the proposal of Common European Sales law which informs consumers on their rights. Both the presentation and the notice content were assessed. In the experiments, over 8000 respondents were asked to complete a shopping simulation and provided with the standardised information notice. The results showed that consumers do not typically read the notice at all, but for those who had, it improves the comprehension of consumer rights. Regarding effective presentation, the study identified that the presentation does not significantly change the impact of the notice; however, highlighting important information in bold makes the notice appear more attractive. With regard to the content of the notice, the study confirmed, for instance, that long and detailed notices embarrass consumers, and that presenting information in tables does not improve clarity (EC, 2013*d*).

Terms and conditions (T&Cs) in a consumer contract is another area in which behavioural insights would be useful to test effective presentation. A study by the EC shows that consumers often automatically accept terms and condition without even reading them. The EC conducted a study on consumers' attitudes towards online T&Cs to examine how consumer readership (*i.e.* whether consumer actually read T&Cs), comprehension and trust in T&Cs can be improved using online surveys and online behavioural experiments. The study included three online experiments involving 12 Member States with 1000 respondents in each Member State, to test the: *i)* effect of shortening and simplifying the T&Cs to increase readability and comprehension; and *ii)* effect of various quality cue (*e.g.* a logo of a national consumer organisation accompanied by the statement “these terms and conditions are fair”) on consumers' trust in the quality of T&Cs. The results showed that shortening and simplifying the T&Cs have improved consumers' readership and, enhanced their understanding of T&Cs and trust in T&Cs, without making them feel that they miss relevant information. Also, adding a reading cost cue (*e.g.* reading T&Cs takes less than five minutes) resulted in more consumers having read the T&Cs. Quality cues also showed positive effects on purchase intentions and trust in the seller and T&Cs. However, the effect varied by type of quality cue: the most positive effects were observed with a national consumer organisation endorsement cue on domestic online stores and with European consumer organisation endorsement cue on foreign online stores (EC, 2016*d*). This study will inform the review of EU consumer and marketing law, particularly on the Unfair Contract Terms Directive (EC, 2016*e*).

Cost disclosure is another area where experiments can be helpful. In the United States, 819 mortgage customers in 12 locations across the United States participated in a controlled experiment using hypothetical mortgage loans in 2005. The purpose of the study was to examine consumer understanding of actual mortgage cost disclosures and a prototype disclosure that was developed for the study. The study revealed that many consumers failed to understand key costs when reading current mortgage cost disclosures and prototype disclosures significantly improved consumer understanding of mortgage costs (US FTC, 2007).

In 2013, the EC also conducted a study related to cost disclosure. The EC examined consumer choice of payment instruments (*e.g.* cash, credit card, debit card) to see whether and how providing more information on payment charges change consumer behaviour, and identifying the most effective way for payment charge disclosure so that consumers can choose the most cost effective method of payment. The study included RCTs which involved payment card holders in 10 Member States. The policy options tested were: merchant cost information (show consumers short and simple notice noting that merchant has to pay a fee to the card company involved); educational nudge (show consumers how much one could save over a year, if the consumer were to make cost-effective choices for payment methods); and direct cost differentiation (either show as rebate or surcharge for using certain payment methods) (EC, 2013*b*). The results showed that choosing payment methods is largely influenced by individual habits and beliefs. Only showing merchant cost information is not effective at all in this context. Showing the cost as surcharges was by far the most effective way. The timing for providing information (before consumers choose a product, before they choose the payment method, or after they have made payment) was also examined but proved to have a limited impact on the decision process (EC, 2013*b*).

In Canada, the Ministry of Government and Consumer Services of the Province of Ontario is considering running experiments to help improve disclosures and to help make consumer decision making easier in a variety of sectors such as payday loans and condominium purchases (Province of Ontario, Canada, 2016).

Concerning policy implementation, experiments can also be used to identify effective ways to reach to consumers and increase their participation on a programme related to consumer protection. One example is consumer education initiatives. In the Province of Ontario, Canada, experiments were used in a project which involved online advertising campaign to convince consumers (homeowners) not to use roofers participating in the underground economy for their home renovation. Roofers participating in the underground economy have been an issue since they offer low level of consumer protection and less emphasis on consumer safety. RCTs were conducted to see what types of messages could induce more consumers to go to the government's website which was designed to make consumers aware of such risks inherent in the underground economy. The Ontario Government tested 16 advertisements on two search engines most used among Canadian consumers. The advertisement on two major search engines informed by the result of the RCTs increased traffic to the government's website by 144% (Innovation Hub, Canada, 2016*b*)

Another way of using experiments is to measure the effectiveness of policies that have already been implemented. The US FTC is using RCTs to evaluate the effectiveness of an existing online program called *Admongo* (*www.admongo.gov/*) which aims to help children improve their understanding of marketing information. RCTs were used to assess *Admongo's* interactive teaching tool. The US FTC is planning to conduct a RCT with 800 students in which half of them will be instructed to play the *Admongo* online game (treatment group) while the other half will not (control group). The effectiveness of the program will be measured by an advertising literacy test which will be given to both groups (US FTC, 2015*b*).

Consumer behaviour surveys

What are consumer behaviour surveys?

Consumer behavioural surveys are designed to help understand the factors that influence consumer decision making and behaviour by asking questions to a large sample of people about, for example, their attitudes, beliefs and expectations (OECD, 2012 and EC, 2013*a*). However, there are limitations: because they are based on self-reporting by consumers, there is no guarantee that consumers express an honest view, and responses may be adversely affected by the way the question is asked. Also, consumers may interpret the questions differently than is expected by the policy maker. Ensuring that the sample is representative of the whole population might be difficult as well (OECD, 2012 and EC, 2013*a*).

Like experiments, consumer behaviour surveys can be used at different stages of policy making, including when: *i)* evaluating sources of problem; *ii)* evaluating policy options; and *iii)* developing effective policy implementation. Behavioural surveys are more commonly used than experiments in at least nine jurisdictions (Australia, Japan, Hungry, Canada, Norway, United Kingdom, United States, Chile and EC). In addition, in some of the studies explained in the previous section on behavioural experiments, consumer behaviour surveys had also been conducted in the same project (*e.g.* study on consumer vulnerability by EC). Some jurisdictions which have not done their own consumer behavioural surveys reported that they do use consumer behaviour surveys conducted by external stakeholders and scientific literature to understand consumer behaviour.

Evaluating sources of problems

In theory, consumer behaviour surveys can be used to decide which policy options to implement by presenting different policy options to consumers and questioning them on how they would react to each policy. However, the surveys that have been identified in this report are mostly focused on improving the understanding of consumer behaviour and consumer decision making. Some examples of questions that are addressed in consumer behavioural surveys are presented in Box 6.

One reason to use consumer behaviour surveys is to better understand consumer behaviour in general. A survey can be a one-off event, but can also be continuously done in a regular basis (*e.g.* yearly basis, once in five years, etc.) using the same question so that one can compare the changes from previous survey(s).

The Consumer Affairs Agency (CAA) of Japan has been conducting door-to-door surveys called the Basic Survey on Consumer Life in a yearly basis since fiscal year 2012. The survey includes questions regarding consumer behaviour, for example, a question on behaviour consumers are committed to take. The most recent survey conducted in November 2015 involving about 6500 consumers in Japan revealed that “closely checking and understanding labels and descriptions before selecting products/services”, "understanding how personal information will be dealt and manage ones' personal information properly", and "chose environmental friendly products and services" were the top 3 behaviour consumers are committed to. It also included questions regarding how consumers react when encountering consumer problems. The results suggested that about 50% of consumers sought assistance, with 46 % contacting the supplier and 37% consulting someone close to them such as family and friends (CAA, Japan, 2016*a*).

The Treasury of the Australian Government has twice conducted a survey named the Australian Consumer Survey, part of which contains questions on consumer behaviour: the first one in 2010-2011 right before the Australian Consumer Law (ACL) came into effect, and then the second one in 2015-2016 to inform the review of the ACL. Both surveyed over 5,000 consumers and used same questions, making it possible to assess the effectiveness of the ACL. The Australian Consumer Surveys included questions on

consumer experiences in trying to address problems, identifying for example under what circumstances consumers would seek advice or file a complaint. It also examined whether consumers take action to address problem encountered and if not, why they do not take action The results revealed that young consumers (16 to 24 years old) are often not taking actions because they do not have enough time and are embarrassed to do so (Commonwealth Treasury of Australia, 2016).

A survey on consumer protection by the Hungarian Authority for Consumer Protection also sought to understand consumer reactions to problems with products or services they had purchased (Hungarian Authority for Consumer Protection, 2016).

Consumer behavioural surveys can also be used to examine general consumer behaviours in a specific market sector. The United Kingdom Department for Business Innovation and Skills (BIS) conducted a survey to better understand consumer behaviour regarding the choice of a service supplier (*e.g.* electricity supplier, mobile phone network supplier, car insurance supplier), as well as the choice of a supplier for major purchases (e.g. furniture, computers, home electronics, car). The study concluded that choosing the cheapest service supplier that meets the consumers' requirement was the most frequent way of making decision. For significant purchase, choosing a supplier which they have used before is the most common factor (Department for Business Innovation and Skills, UK, 2015).

Box 6. Examples of consumer behaviour surveys

- How do consumers react when they face consumer problems? When facing problems, who do consumers consult with? (Australia, Japan, Hungary)
- What kinds of behaviour are consumers committed to take? (*e.g.* choosing environmentally-friendly products and services) (Japan)
- On what basis do consumers make decisions on the suppliers they use for products and services? (*e.g.* price) (UK).
- How do consumers interpret certain expression used in advertisements? (US)

Source : CAA, Japan (2016*a*), Commonwealth Treasury of Australia (2016), Hungarian Authority for Consumer Protection (2016), BIS, UK (2015), US FTC (2009)

In terms of consumer survey on specific sectors, the Norwegian Consumer Council conducts regular surveys in different consumer areas such as financial services, digital services, housing and foods. Most of these surveys include self-reporting questions regarding consumer behaviour. These surveys had informed the Consumer Council's online price comparison tools to provide consumers with more information on markets including financial services, dental services, pensions, groceries, carpentry services and electricity (Norwegian Consumer Council, 2016).

Surveys that examine consumers in a specific sector could serve as evidence to justify introducing new policies or regulations. A survey of payday loan borrowers conducted by the Ontario government (Canada) included questions on lending behaviour. The results later informed amendments to the 2015 Ontario's payday lending legislation (Province of Ontario, 2016). In 2009, the US FTC conducted a survey to examine how consumers understand general claims that would give consumers an impression that the product is good for environment. The survey collected data from up to 3700 consumer and confirmed that claims such as "environmentally friendly" or "eco-friendly" are likely to make consumers think that those

products have huge environmental benefits while very few products in fact have such an effect. Furthermore, the study revealed that claims such as "renewable energy" are interpreted by consumers differently from the suppliers' intention. Based on this evidence, the US FTC considered those claims as being misleading to consumers and revised its "Green Guides" accordingly (US FTC, 2009 and 2010).

Developing effective policy implementation

Consumer behaviour surveys are sometimes used to collect evidence to identify effective ways of implementing policy, but only several cases have been identified in this report. In addition, the Ministry of Government and Consumer Services of the Province of Ontario (Canada) is considering using consumer behaviour surveys to improve disclosure to consumers in a variety of regulated areas.

Concerning labelling, a 2006 survey in the US was used to help review the EnergyGuide label, which shows the estimated annual energy cost or alternative energy consumption information for a variety of products. In addition to the label at that time, three other types of labels for a refrigerator were also tested. The survey, involving 3000 individuals, was designed to understand how well consumers understand each type of label, and to identify the label least likely to cause consumer confusion. The results showed that labels featuring annual operating cost would be most likely to help consumers have a clear understanding of what is at stake. This result was later reflected in the new label design (US FTC, 2006; Farell, J., Pappalardo, J.K., and Shelanski, H., 2010).

In Chile, consumer surveys were used along other methods to make electricity bills clearer, simpler and more transparent for consumers. This was part of a three stages project that started in 2015 and planned to be finished in March 2017. Consumer surveys were used in the first stage of the project to identify potential problems with electricity bills. The surveys revealed that consumers: *i)* pay mostly attention to the final payment; and *ii)* do not understand well the bill content. Based on these results, the initiative focused on improving the content and presentation of information in the bills. The second stage of the project involved the design and testing of prototypes. This stage was conducted through consumer surveys, workshops, trials, and interviews with consumer organisations and businesses. The third stage of the project was the launch of a pilot of the new bill in three municipalities. The new bill has now been upgraded according to the six following elements :*i)* use of plain language with definitions of terms; *ii)* hierarchize the information based on their relevance such as total amount due and date of payment; *iii)* provide explicit information on amount of payment and different charges that apply; *iv)* add detailed information on personalized energy consumption; *v)* include clearer information on authority of the services; and *vi)* add information on energy savings. Consumer survey followed by the pilot revealed that consumers show higher confidence, better understanding, and higher level of satisfaction to the new bill (SERNAC (Servicio Nacional del Consumidor), Chile, 2015 and 2016*a*).

Policy evaluation framework

In the policy making process, policy evaluation to assess the likely impact of the policy before actually implementing and in some cases also after implementation, is required in many governments. Policy evaluation frameworks that have been developed in few jurisdictions and that refer to behavioural insights can provide policy makers with guidance on when and how they should analyse consumer behaviour. In some jurisdictions, consumer behavioural impact is mentioned as one of the impacts policy makers should take into consideration.

The EC's *Better Regulation Guideline* advises how to design policies that achieve their objectives at minimum cost and covers whole policy cycle from policy preparation to evaluation and revision. It calls for impact assessment for initiatives that are likely to have significant economic, environmental and social impacts (EC, 2015*b*). It also stresses the importance of evaluations and fitness checks for existing EU

legislation to see whether those still fit for its purpose. Behavioural insights, especially the use of experiments, are useful for such evaluations and checks (EC, 2016*a*). The corresponding *Better Regulation Toolbox*, which gives more detailed and technical information, mentions behavioural biases and behavioural economics several times. It has a section on impact on consumers which points out that: *i)* to assess consumer welfare, demand side factors including consumer behavioural biases are important, as well as the supply side factors such as the costs of goods and services; *ii)* policy design will be better informed and more effective when consumer behavioural biases are taken into account; and *iii)* behavioural experiments allow policy makers to compare different policy options and to modify policies before actual implementation (EC, 2015*c*). In addition, in the section on how to analyse problems, behavioural biases are noted as one of the four underlying causes of problems, the other three being market failures, regulatory failures and equity (EC, 2015*c*).

Innovation, Science and Economic Development Canada's *Consumer Impact Assessment* provides an assessment framework for policy analysts working in all levels of Canadian governments, whether or not they are focused exclusively on consumer policy development. It addresses strategies to assess consumer impacts when designing or evaluating new policies by using a combination of traditional and emerging analytical approaches, including behavioural economics. The guide also encourages government organisations to be receptive to consumer input, and it offers resources to assist analysts in accessing Canadian consumer organisations (Industry Canada, 2010).

The Canadian Radio-Television and Telecommunications Commission (CRTC) has developed a tool (*Consumer Lens*) to assess the consumer impacts of its policy decisions in 2013 which had been informed by the *OECD Consumer Policy Toolkit* and *Industry Canada's Consumer Impact Assessment Guide,* including the parts on behavioural economics. In the *Consumer Lens*, consumer impact is required to be assessed from three aspects: economic impacts, behavioural impacts and consumer segment impacts (*i.e.* different magnitude of impact among different segments of consumers). As for behavioural impact, CRTC staffs are required to examine any effect on consumers' access to clear, concise and accurate information which would help consumers realistically assess the value of the product and service, keeping in mind that consumers cannot always act rationally as traditional economics suggest (CRTC, Canada, 2014). Another example comes from Natural Resources Canada, which evaluated its energy efficiency programs by collecting data through methods including interviews and surveys looking into how the program has changed energy saving behaviour (Natural Resource Canada, 2015).

III. Consumer policy interventions informed by behavioural insights

Consumer authorities are increasingly implementing policies that are influenced by behavioural insights including: *i)* enforcement actions; *ii)* new regulations; and *iii)* consumer empowerment initiatives and consumer education.

It should be noted here that applying behavioural insights to policy does not always mean that they are based on results of experiments/RCTs and/or consumer behavioural surveys discussed earlier in this report. Behavioural insights can also inform policies, for example, by providing a theoretical basis for implementing new policies through consideration of existing academic literature. The policy interventions mentioned in this section are mainly examples of such interventions. Moreover, there are also cases where policy makers might not have explicitly considered or been aware of behavioural insights when the policy was developed, but can be explained in a behavioural context. Cooling-off periods for consumer purchases is one of such examples; this has been mandated in many jurisdictions guided by implicit knowledge of overconfidence (McAuley, 2013). The recent report by EC on *Behavioural Insights Applied to Policy: European Report 2016* also notes the various ways behavioural insights could influence policies and classifies policy interventions under three types according to the degree to which behavioural insights have helped shape them (Box 7) (EC, 2016*a*).

Box 7. Classification of behavioural policy initiatives by the EC

- **Behaviourally-tested initiatives**: Initiatives being explicitly tested, or scaled out after an initial ad-hoc experiment.
- **Behaviourally-informed initiatives**: Initiatives designed explicitly on previously existing behavioural evidence.
- **Behaviourally-aligned initiatives**: Initiatives that, at least a posteriori, can be found to be aligned to behavioural evidence.

Source : EC (2016*a*)

Enforcement actions

Consumer protection enforcement authorities are increasingly taking action against businesses using behavioural biases to mislead consumers, drawing on work related to behavioural insights as support. Work on behavioural insights can provide basis for what should be considered as deceptive and unfair commercial practices as noted in consumer laws such as Australian Consumer Law and Consumer Protection from Unfair Trading Regulations in the United Kingdom (CPRs).

Drip pricing

Drip pricing is a price advertising technique that might trigger behavioural biases such as anchoring and endowment effect to prevent consumers from making optimal choices. To date, consumer authorities in several jurisdictions have taken enforcement actions on drip pricing in the online market, including ones against airline companies (Box 8).

Box 8. Examples of enforcement actions on drip pricing

United Kingdom (airline company)

In 2011, the UK OFT started its investigation on airline companies which were charging consumers additional debit card payments fees that were not included in the headline price and presented to consumers at the end of the booking process. Credit card charges were not presented in a clear and transparent way as well. The UK OFT considered these practices as a breach of CPRs provisions on unfair commercial practices including misleading actions and misleading omissions. In July 2012, the UK OFT closed the investigation and 12 airline companies agreed to include debit card surcharges in the headline price and present any surcharges for paying by credit card in a way that could be easily found by consumers.

Australia (airline company)

In June 2014, the ACCC instituted proceedings in the Federal Court against two airline companies on drip pricing. The ACCC argued that the two airline companies did not adequately disclose an additional Booking and Service Fee, which was charged on bookings using mostly credit cards or PayPal. This Booking and Service Fee was only shown to consumers once they had gone through a number of processes for booking. In November 2015, the Federal Court found that the use by two airline companies of drip pricing was misleading and deceptive conduct in breach of the Australian Consumer Law.

Australia (accommodation service provider)

The ACCC found two accommodation service providers in breach of the Australian Consumer Law for making misleading representations by failing to adequately disclosing mandatory fees to consumers. One provider did not

present a mandatory service fee and cleaning fee on search results pages and accommodation listing pages on its website, mobile site and apps. The other provider failed to adequately present mandatory service fee and payment fee on its mobile site and app, and on particular pages of its website. In October 2015, ACCC accepted court enforceable undertakings (a type of administrative settlement) by the two providers.

Australia (tickets selling company)

The ACCC had identified that two ticket selling companies had failed to state a single minimum total price. Unavoidable fees, including additional fee for making payment in debit card or credit card, service/delivery fee, and handling fee (per transaction fee applied to certain events), were not properly presented to consumers early in the online booking process. In October 2014, following the ACCC's investigation, both companies had improved their pricing practices.

Canada (telecommunication company)

The Competition Bureau of Canada concluded in December 2007 that a large telecommunication company in Canada had charged consumers higher prices than advertised for many of their services such as home phone, Internet, and TV. It was not possible for consumers to purchase the service with the advertised price; additional mandatory fees such as modem rental and digital television services are hidden in fine-print disclaimers. In June 2011, the Competition Bureau announced that the company had agreed to stop such advertisements and to pay an administrative monetary penalty of 10 million CAD.

Canada (furniture stores)

In July 2013, the Competition Bureau of Canada announced actions against the two largest furniture and home appliance retailers in Canada for deceptive marketing practices related to drip pricing. Those two retailers ran "buy now, pay later" promotions, which gave the impression to consumers that they did not need to pay at the time of purchase. However, later in the purchasing process, additional up-front fees (a deferred payment option surcharge) were presented to consumers, which resulted in a higher final price at the time of payment. The Competition Bureau filed an action with the Ontario Superior Court of Justice to ask for termination of this kind of advertisement, refunds for consumers who had paid additional up-front fees, and monetary penalties.

Canada (car rental companies)

The Competition Bureau of Canada announced in March 2015 that certain prices and discounts presented in online and offline advertisements by two car rental companies in Canada were not attainable; additional mandatory fees were disclosed later in the reservation making process. The Competition Bureau concluded that their advertisements were misleading even though an estimate of fees was presented to consumers before completing reservations. In June 2016, the two car rental companies have agreed to pay a 3 million CAD administrative monetary penalty for their misleading advertisement. They also agreed to pay 250,000 CAD for the Bureau's investigative costs and to implement a corporate compliance program.

Source : ACCC, Australia (2014*a*, 2014*b*, 2015*a* and 2015*b*), UK OFT (2012*b* and 2012*c*), Competition Bureau, Canada (2011, 2013 and 2016)

In Australia, addressing drip pricing had been one of the ACCC's priority areas in 2014 (ACCC, Australia, 2014*c*). The actions mentioned by the ACCC in Box 8 had been taken following this policy. It still remains a focus for the ACCC as one of the most important emerging consumer issue in the online marketplace. Drip pricing has been seen as a problematic commercial practice in many jurisdictions, prompting international co-operation. In 2015, the annual Internet sweep by International Consumer Protection and Enforcement Network (ICPEN), which involves over 60 consumer authorities, targeted online pricing issues in the travel, tourism and leisure sectors including drip pricing. One of the sweep participants, the ACCC, reported that they had examined websites and mobile apps of over 130 retailers (ACCC, Australia, 2015*c*).

Other unfair commercial practices

Behavioural insights have also informed enforcement actions regarding unfair contract terms. In 2013, the UK OFT opened an investigation into gym membership contracts which tie consumers into minimum membership periods with limited rights to cancel. This investigation was a follow-up to the High Court finding that minimum contract terms that exceed 12 months were considered unfair because they could trigger consumer behavioural biases. This type of contract could be problematic for consumers due to behavioural biases such as overconfidence and time-inconsistency: even if consumers know what is in their future interest at the time of agreeing to the contract, they often fail to act as such. Indeed, one study showed that consumers who pay upfront gym membership fees can end up paying significantly more than if they had simply paid per visit (Oxera, 2013). The UK OFT examined whether these kinds of gym membership contracts could be considered as unfair contract terms. Following the investigation, the UK OFT required gym companies to review their contracts and practices to: *i)* extend rights for members to cancel their contract should their circumstances change; *ii)* commit not to describe membership as fixed-term contracts when it will be automatically renewed on a rolling basis; and *iii)* explore greater transparency about key membership features including membership periods and cancellation rights (UK OFT, 2013*b* and 2013*c*).

In Israel, the Consumer Protection and Fair Trade Authority analysed a case of advertisement by a construction company using behavioural insights. The construction company had used the term "Target Price" in their advertisement for the purchase of apartments which is the same name as a governmental program that offered certain buyers a special below-market price. However, the advertisement had nothing to do with this governmental program which could be misleading for consumers. The company argued that this was not problematic since they provide full information so that consumers would understand that it was not related to the governmental program. The consumer authority concluded that the term "Target Price" constituted a misrepresentation in advertising and was thus considered harmful to consumers. The decision was based on findings from behavioural studies, especially the ones on priming effect: the term "Target Price" may have primed consumers to tie this word to reliability and safety of the transaction, making the apartment more attractive (Consumer Protection and Fair Trade Authority, Israel, 2016*a*).

In July 2015, the Competition Council of Lithuania concluded that advertisements of electronic products offered by an e-commerce company were misleading advertisements and fined the company. The Competition Council found that sale and reference prices reflected fake value of the offers which mislead consumers. This decision suggests that the advertisements may have triggered behavioural biases such as anchoring and framing. The Competition Council also noted the decisive influence price information has in e-commerce given that it is not possible to physically inspect the product before purchase (Competition Council, Lithuania, 2015 and EC, 2016*a*).

Regulations

Evidence in behavioural insights, for instance from behavioural science literature, have provided a basis for introducing new types of regulation. In these cases, consumer authorities recognise specific behavioural biases that may prevent consumers from making optimal choices, and directly prohibit businesses from conducting commercial practices that trigger the behavioural bias. Default and status quo effect, hyperbolic discounting, overconfidence, and framing are typical behavioural biases which such regulations are trying to address.

One notable example of such a regulation is the latest EU Consumer Rights Directive, which was adopted in 2011. The Directive bans the use of pre-checked boxes for online sales. This covers, for example, express delivery options and travel insurance contracts when buying airline tickets (EC, 2014*c*). The new ban was informed by behavioural literature recognising the power of default options in the face of

assumptions from traditional economics that default options will not affect consumer choices. As indicated in the *OECD Consumer Policy Toolkit*, default options may have significant impact on consumer decision making by triggering several behavioural biases such as framing and endowment effect (OECD, 2010).

Since the EU Consumer Rights Directive in 2011, the EC has been actively applying behavioural insights to their recommendations. The 2014 Recommendation on Online Gambling Services was informed by the RCTs which had been discussed earlier. It recommends that Member States provide ongoing support for players through for example information alerts about winnings and losses whilst playing, and to take time out from gambling. These measures are in line with the results of RCTs which suggested that in-gamble measures are more effective than pre-gamble measures (EC, 2014*a* and 2014*b*).

Regarding e-commerce, OECD recommendations also addresses specific commercial practices informed by behavioural insights. The OECD Recommendation of the Council on Consumer Protection in E-commerce adopted in March 2016 includes new provisions aimed to address drip pricing and hidden cost practices in addition to generally recommending the use of research in behavioural insights in e-commerce policy making (OECD, 2016).

The credit card industry is another area where behaviourally informed regulation has been introduced. In the US, the Credit Card Accountability Responsibility and Disclosure (CARD) Act was signed into law by the President in May 2009 and took effect in February 2010. The main purposes of the CARD Act are to enhance fairness by prohibiting certain unfair or abusive practices and to promote transparency by making the rates and fees of credit cards more transparent. Before the act, credit card issuers were adopting practices that were unfair and misleading for consumers taking advantage of consumer behaviour biases. As such, several provisions in the act were extensively informed by literatures of behavioural insights. These included the following: being too optimistic when assessing the likelihood of incurring fees, overly discounting large potential future costs, and paying too little attention to potential costs such as fees or changes in interest rates (Lunn, 2014). As a result, the act (Consumer Financial Protection Bureau, US, 2011):

- Forces credit card companies to decline transactions that go over the card limit and prohibits charging an over-the-limit fee unless consumers expressly opt in to permit such transactions.

- Mandates credit card companies to include in each monthly statement: *i)* the amount consumers should pay each month to pay the bill off in three years; *ii)* the total cost to the consumer in doing so; and *iii)* the savings compared with paying only the minimum payment.

Another example related to credit card concerns the presentation of rates and fees for credits. In Lithuania, credit companies present minimum rather than maximum (*i.e.* presented as "from") annual percentage rates and contract fees. The State Consumer Rights Protection Authority of Lithuania proposed to change this presentation by replacing the word "from" by "until". This has been proposed keeping in mind behavioural bias, namely framing, to promote more informed choices by consumers (EC, 2016*a*).

Contrary to the case of the EU Consumer Rights Directive which bans certain uses of default settings, in some cases, mandatory uses of default settings can help consumers take the best option for them. In Canada, the Wireless Code by the CRTC, a mandatory code of conduct for providers of retail mobile wireless voice and data services, uses the power of default setting to prevent consumers from experiencing "bill shock" which occurs when wireless users receive unexpectedly large monthly bills for their communication services. Under the Wireless Code, service providers are required to limit additional charges for data usage and roaming to certain amount by default: explicit consumer consent is required to impose additional charges. In addition, the Wireless Code, having in mind behavioural bias such as hyperbolic discounting, requires service providers to clearly present information about any device subsidy

and how the value of subsidised devices relates to early cancellation fees. This will help consumers not to value the subsidised device too much at the point of contract without considering the economic consequences over the course of their contract including what they have to pay for early cancellation (CRTC, Canada, 2013).

In Israel, behavioural insights were used when addressing the issue of package size reduction. Package size reduction is the practice of reducing the quantity of a product, such as snacks and drinks, without changing the price and thereby effectively raising the price. While this would not be a problem for the rational consumer of traditional economics who would factor in the size reduction appropriately, behavioural insights suggests differently. As consumers tend to focus on a single characteristic that is prominent for them, that characteristic is disproportionately emphasised compared to other characteristics (anchoring effect). Several studies show that due to this behavioural bias, consumers often chose price as the most important characteristic paying insufficient attention to weight or size. Informed by this behavioural insight, the Consumer Commissioner published guidelines specifying that package size reduction can be a misleading representation, and therefore, businesses should clearly advertise on the package any such size reduction in a way that consumers can realise such reduction and present previous weight of the product, current weight of the product and the percentage of the reduction (Consumer Protection and Fair Trade Authority, Israel, 2016*b*).

Consumer empowerment initiatives and consumer education

Behavioural insights can support consumer empowerment and educational initiatives. The two main areas are: *i)* initiatives to help consumers overcome specific behavioural biases and to help consumers making better choices; and *ii)* education tools designed to help consumers understand behavioural biases.

A typical behavioural bias that consumer empowerment initiatives try to address is "choice overload". Simplifying the information presented to consumers is a commonly-used way to address "choice overload" and to enhance consumer empowerment through information provision (Lunn, 2014). For example, the CRTC of Canada requires service providers to supply a critical information summary which summarises the most important elements of the contract for the consumer in addition to the full copy of the contract (CRTC, Canada, 2013 and 2016).

A notable consumer empowerment initiative, which is different from providing simpler forms of information, is the UK *Midata* initiative. *Midata* enables consumers to access information they provide to businesses including transaction and consumption data. Consumers can also submit their data to comparison websites to enhance their understanding of purchasing choices. This was first launched in 2011 by the Department for Business, Innovation and Skills working with the Behavioural Insights Team as part of the consumer empowerment strategy. It focused on four sectors: personal current account, credit cards, energy and mobile phones. One of the main purposes of this initiative is to improve consumer decision making by providing tools to mitigate certain behavioural biases. The Internet has made information much more readily available for consumers when choosing products and services, but behavioural insights suggest that that does not always make consumers better off. One issue is the "choice overload" bias which makes it difficult for consumers to choose the best options. Another issue is the "status quo" bias which might prevent consumers from switching services even if better options are readily available in the market. The *Midata* initiative tries to mitigate these problems by simplifying choices and reduce switching costs (Department for Business Innovation and Skills and Behavioural Insights Team, UK, 2011).

The above mentioned initiatives are the ones to address issues when too many choices are provided. On the contrary, there are also cases where behavioural insights suggest giving more choices to consumers. Requiring Microsoft to use Internet Explorer Ballot Box in the EU is one example. In the EU, there had been concerns over Microsoft tying its web browser Internet Explorer to the Windows PC operating system,

thus increasing the risks of limiting consumers' choice on web browsers due to status quo effect, and reducing competition on web browsers. On January 2009, the EC sent to Microsoft a Statement of Objections. Since March 2010, Microsoft has introduced the so-called "ballot box" which is designed to give consumers an effective and unbiased choice between various web browsers including ones that are not operated by Microsoft (EC, 2010 and 2013*e*). Since the introduction of the ballot box, the share of Internet Explorer as desktop browsers has declined, while the share of other web browsers has increased (EC, 2016*f*).

Consumer education initiatives can be designed with behavioural insights in mind. For instance, the *Admongo* program (*www.admongo.gov/*) by the US FTC, an interactive teaching tool that helps children to have the critical thinking skills to understand advertising, takes into account behavioural biases that may affect children when reading advertisements (US FTC, 2016).

IV. Challenges in applying behavioural insights

Behavioural insights have been influencing consumer policy in a variety of ways as policy makers work to improve the evidence-base and take into account alternatives to the assumptions of traditional economics. However, there are challenges and some aspects that require further consideration. Both the literature and responses to the OECD questionnaire identify challenges related to scientific methods such as experiments, interpretation of behavioural insights in policy, organisational issues, and addressing the variety of stakeholders.

Potential challenges which policy makers may encounter when introducing more evidence-based process such as experiments and surveys include:

- ***Internal and external validity***. Behavioural insights suggest that context matters in understanding consumer choices. In conducting experiments, there are often concerns as to whether the result of an experiment is due to external factors that were not measured in the experiment (internal validity) and whether the result can be generalised in a real word situation (external validity) (EC, 2013*a* and US FTC, 2016). To achieve external validity, internal validity is necessary. One of the keys to achieving internal validity is to randomise the sample and allocate similar set of participants to each treatment (*i.e.* status quo and interventions) (London Economics, 2016). The problem of external validity can be mitigated to some extent by testing interventions on the field (Innovation Hub, Canada, 2016*a*).

- ***Data collection***. Data on consumer responses to a particular policy or program intervention is often difficult to collect. There is often no built-in reporting system to gather data on each consumer transaction (*e.g.* the price consumer purchased or whether the consumer was satisfied with the transaction). This makes it difficult to evaluate consumer decision making (Province of Ontario, Canada, 2016).

- ***Lack of simple outcomes measure***. In consumer policy settings, it can be difficult to assess what is the optimal or best choice for consumers. Policy making may be focused on questions such as whether consumers regret their purchase or whether consumers were satisfied with the transactions, which are vague and difficult to assess. Difficulty in knowing what the "best" choice is can make it more difficult for policy makers to apply behavioural insights (Province of Ontario, Canada, 2016).

- ***Type of policy or program***. There can be certain types of policies or programs for which behavioural insights may not be informative. Not all policies or programs are suitable for running

experiments and RCTs (Innovation Hub, Canada, 2016*a*). There are also number of things policy makers are not able to test due to legal restrictions (SERNAC, Chile, 2016*b*)

Another challenge may come when implementing interventions and considering how behavioural insights should be interpreted in a policy context:

- ***Timing***. The timing of an intervention is important in practice. For instance, timing has been indicated as one of the key elements for effective implementation of financial education programmes. Education initiative that implemented just before making key financial decisions or recurrent event like a tax deadline are more effective. (OECD, 2013). It has also been pointed out that information requirements in EU legislation, which provide considerable information to consumers, could be improved if policy-makers consider not only the content of information but also the timing of its provision, which has not yet been sufficiently studied (Sibony, 2016).

- ***Manipulation.*** The public may view policies informed by behavioural insights as "manipulation" by government. Nudging has been the subject of political and normative criticism that it works by manipulating people's choices. (Hansen and Jespersen, 2013). Similar criticisms have been levelled at the UK Behavioural Insights Team, but on the whole the public has realised that behavioural insights had made a difference for the better. The Team also points out that it is important to be transparent on what the government is doing using behavioural insights, for instance by publicising the results of experiments to gain people's trust (The Governance Post, 2016).

- ***Linking normative policy prescription with the behavioural insights***. Too many studies come across as policy advocacy rather than as descriptive of how consumers make their choices and why they seem to make particular choices. Considering the diversity of consumers and business sectors, what is advocated based on behavioural insights might be optimal only in a certain context. Therefore, making clear distinction between studies on behavioural insights and policy recommendations may allow a better weighing of all factors at the policy decision level (US FTC, 2016).

Depending on the size of the organisation, there might be resource challenges:

- ***Lack of resources and time***. Conducting experiments requires human and financial resources, which can be an important constraint, particularly for smaller organisations (CAA, Japan, 2016*b*; SERNAC, Chile, 2016*b*; and Federal Consumer Affairs Bureau, Switzerland, 2016). It is also sometimes challenging to find professionals specialised in the field. For instance, just taking sample is a complex activity which requires relatively large amount of training, time and resources (SERNAC, Chile, 2016*b*). In addition, experiments can take more time than the constraints of the policy making process can allow (Federal Ministry of Justice and Consumer Protection, Germany, 2016).

- ***Capacity building.*** Behavioural insights are a relatively new field and efforts are needed to build capacity for the theory and practice to be applied to improve consumer policy (Natural Resource Canada, 2016). Employing scientific or experimental approaches may be new to many policy analysts and decision makers and require a shift of mentality within government (CRTC, Canada, 2016).

- ***Organisational commitment.*** It is sometimes difficult to convince officials in certain policy areas to apply behavioural insights. In Canada, the Innovation Hub tries to overcome this challenge by:

i) presenting trials that occurred in Canada; *ii)* putting emphasis on the fact that this is a trial/test; and *iii)* designing the solution for implementation (Innovation Hub, Canada, 2016*b*).

Many consumer policies focus on behavioural biases that consumers as a whole are assumed to fall into. However, there are a variety of stakeholders that need to be considered when making and implementing policies:

- ***Diversity of consumers and business sectors***. Relevant behavioural insights may apply only to certain groups of consumers and/or certain sectors of business. For instance, there is some evidence that elderly people are more sensitive to framing (Lunn, P. and Lyons, S., 2010). This means that policies informed by behavioural insights that work well for average or most consumers may not work for vulnerable consumers.

- ***Behavioural biases of businesses***. Although policies informed by behavioural insights generally focus on consumer behaviour, decision-makers in business may likewise act in ways inconsistent with the assumptions of traditional economics. In traditional economics, it is usually assumed that businesses are concerned with a single objective, namely profit or the present value of the company's equity. However, some research shows that businesses may seek other factors such as market share or cash flow at the expense of profit (McAuley, 2013). In addition, the impact of regulation on business behaviour might differ by type of policy. Some research suggests that there is not much evidence that enforcement actions have a deterrent effect on business behaviour, at least in European legal systems. It suggests that formal enforcement actions or deterrent sanctions should be restricted to rare and serious cases and enforcement policy should be oriented instead to reward and incentivise ethical behaviour (Hodges, 2015).

- ***Behavioural industrial organisation/Counter-nudges*** *(firms' responses to behavioural biases).* Businesses may take advantage of consumer behavioural biases such as framing. In such cases, increasing the number of firms does not always increase competition. Rather, firms may engage in more complicated pricing practices which make it more difficult for consumers to compare and switch between different companies. In this case, less sophisticated consumers may subsidise more sophisticated consumers, and only sophisticated consumers may benefit (London Economics, 2016). In other cases, businesses may counter-nudge consumers to opt-out from a legal default that will protect consumers, which makes the behavioural intervention (default) ineffective (Sibony, 2016).

- ***Distinction between manipulation and fair advertisements by businesses***. Using behavioural insights in designing and implementing market interventions is not new in the private sector, particularly in the field of advertising (OECD, 2015*b*). However, it is difficult to tell whether and when nudging such advertisements become manipulation, because the concept of manipulation itself is difficult to define and apply (Wilkinson, 2013). This may raise challenges for authorities when setting regulations and deciding whether or not to take enforcement actions on misleading advertisements.

- ***Behavioural biases of government agencies***. Like consumers, government officials are also subject to behavioural biases. As a result, government policies may institutionalise rather than overcome behavioural biases, which may result in choosing policies that may harm consumers. For example, policy makers may overestimate small risks leading to alarmism about extraordinary cases such as Ebola and plane accidents (Viscusi and Gayer, 2015).

V. Conclusion

This report suggests that, over the past decade, behavioural insights have helped improve consumer policy making towards a more evidence-based one and have helped developing consumer policy interventions. The increasing use of behavioural insights suggests its utility to consumer policy, including for jurisdictions that has not yet applied it to their consumer policy. However, it is important to note that approaches based on behavioural insights are a complement -- not a substitute -- to traditional policy approaches (OECD, 2015*b*).

Methods such as behavioural experiments and surveys help policy makers better understand various policy questions and provide evidence-based results to help address those questions. In general, this report finds that behavioural experiments are used when defining the consumer problem and its sources, when measuring consumer detriment, and when evaluating policy options and selecting the ones to be implemented; whereas behaviour surveys tend to be used for defining the consumer problem and its sources. In terms of developing effective policy implementation, behavioural experiments and surveys are both used to decide on the effective presentation of a disclosure, while behavioural experiments are also used to identify ways for governments to engage more consumers in initiatives aimed at protecting consumers. Also, behavioural experiments tend to be used to address issues associated with specific commercial practices (*e.g.* drip pricing), whereas behavioural surveys are mostly being used to understand consumer behaviour in general (Figure 3). Using several methods for addressing one policy question could reinforce the validity of its results.

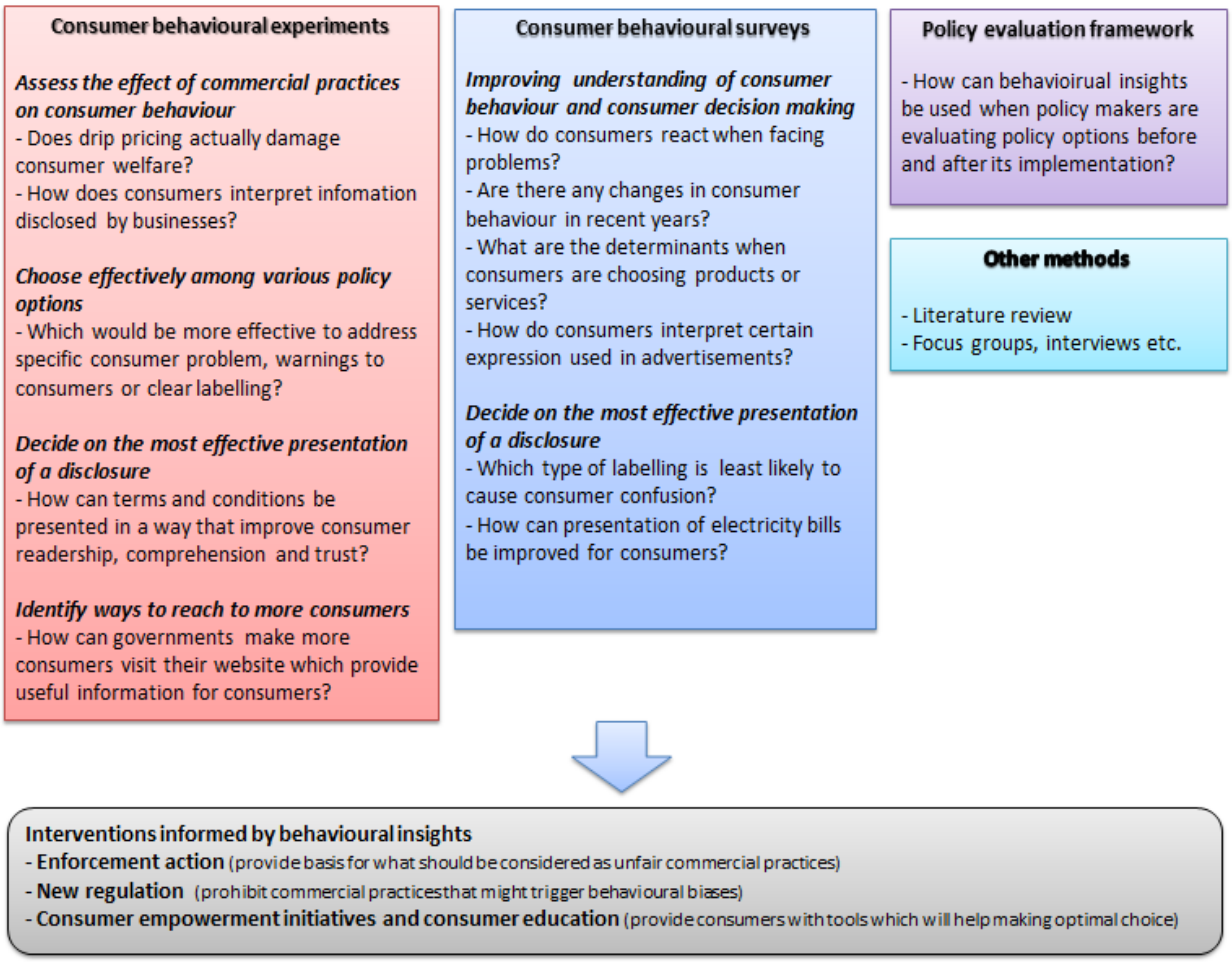
Regarding policy initiatives, this report discusses enforcement actions, regulations, and consumer empowerment initiatives and points out that behavioural insights provide grounds and justification for authorities on why they need to take actions, and indicate how the impact of behavioural bias should be mitigated. However, many of such initiatives are based on previously existing behavioural research and evidence, and initiatives that are tested by behavioural experiments or surveys before implementation is still not that common.

This report focuses mainly on consumer protection policy, but it would be worth noting that policies informed by behavioural insights in other policy areas could also benefit consumers. One such example is initiatives to increase the efficiency and reduce the cost of work done by governments including ones to enhance using online government services. The Ontario government (Canada) did a behavioural experiment to identify messaging which will nudge more consumers to use online renewal services for licence plate stickers thus reducing costs for the government. Consumers also benefited from the shift to online services by, for example, helping them save travel and waiting time (Innovation Hub, Canada, 2016*b*).

Despite an increasing number of useful initiatives, the use of behavioural insights in the policy making process is still limited to a small number of jurisdictions. This is particularly the case for the use of consumer behavioural experiments. This could be due to the challenges listed in section IV, in particular a lack of resources and time as frequently noted in the questionnaire.

The application of behavioural insights is still limited to certain policy areas. Section II and III point out that, to date, the use of behavioural insights in consumer policy has been mainly observed in the areas of labelling and information disclosure issues typically for price representation and in e-commerce. This is not to suggest, however, that the impact of behavioural insights is limited to those areas. Other areas that could benefit from behavioural insights might include:

Figure 3. Ways to use behavioural insights in consumer policy making and examples of questions that could be addressed



- ***Consumer education***. Consumer education programs which take behavioural insights into consideration do exist (e.g. the *Admongo* program of the US FTC). Yet, its use in consumer education is much less prominent compared to other areas such as information disclosure. Other OECD work has already identified consumer financial education as a promising area for incorporating behavioural insights (OECD, 2013).

- ***Product safety.*** It has been pointed out that behavioural biases such as "overconfidence" have led consumers to systematically underestimate product safety related risks. Consumers tend to think that risks associated with goods are properly managed by organisations including businesses and government agencies, and there is no need for consumers to worry about that risk (Venkatesan, 1981). Moreover, product safety is not only about unsafe products in the market: research suggests that many of the injuries caused by products are not because of poor product design, but due to poor use of safe products (Staelin, 1978). These findings indicate that consumer behaviour could be a key factor to promote product safety and that behavioural insights could be useful for product safety policies. Possible examples include enhancing the effectiveness of product recalls or developing more effective safety warnings.

Another area for further consideration would be measuring and evaluating the impact of interventions informed by behavioural insights, which is the final step for consumer policy making established in the *OECD Consumer Policy Toolkit* (Figure 1). This report did not find many cases where effectiveness or impact of interventions had been measured and evaluated afterwards. It has been pointed out that, in general, this process is often ignored or undertaken irregularly and/or incompletely by policy makers, but it is important to determine the extent to which they are achieving policy objectives in a cost-effective manner (OECD, 2010). Interventions informed by behavioural insights are not an exception.

ANNEX:
QUESTIONNAIRE ON THE USE OF BEHAVIOURAL INSIGHTS AND ECONOMICS IN CONSUMER POLICY

Note: If more than one agency in your country applies behavioural insights to their consumer policy making, multiple responses to the questionnaire are welcome.

Country name: _____

Name of organisation:_____

Contact person: _____

Email: _____

Please complete and return to the Secretariat (Rieko.TAMEFUJI@oecd.org and Sarah.FERGUSON@oecd.org) by **29 January 2016**.

Use of behavioural insights and economics in the consumer policy making process

For general description of "behavioural economics" and "information economics" please see below[34]:

- *Behavioural economics*. A standard definition would be that behavioural economics is the incorporation of psychological insights into the study of economic problems. It describes how people sometimes fail to behave in their own best interests, due to biases such as self-control problems, making inappropriate distinctions between gains and losses, and difficulties in choosing among a large set of options.

- *Information economics*. Generally speaking, information economics is the extension of the standard neoclassical theory to view information as a scarce resource that can be analysed in ways similar to other commodities in the market. A large amount of literature in this area analyses how imperfect information affects market outcomes; for instance, issues around "information asymmetries" between sellers and consumers which may lead to negative outcomes for consumers have been analysed.

Experiments and consumer behaviour surveys

Deciding on which policies to introduce / Developing effective ways of implementation

1. Has your organisation run (or is planning to run) economic experiments and/or trials (e.g. randomised controlled trial) that incorporate behavioural insights?

	Yes	No, but planning to in the near future	No, with no plans to in the near future
Deciding on which policies to introduce and/or understanding consumer decision making (e.g. experiments to identify the behaviour bias, experiments to determine what kind of policy would be effective to address problems)			
Developing effective ways of policy implementation (e.g. experiments to analyse what kind of labelling would be understandable and effective for consumers)			

2. If yes in 1,

- Could you please provide information regarding the experiment/trial (e.g. copy of or link to a summary report of the result)?
- If a full report is not available in English, could you please describe: *i)* how the experiments/trials were conducted; *ii)* the results of the experiments/trials; and *iii)* whether and how the results were used?
- If the experiment/trial resulted in the implementation of a new policy, could you please provide information about that policy?
- If you did not implement a new policy as a result of the experiment, please explain why, especially if the reason you did not implement a policy was based either on the results of the experiment or problems with the experiment (e.g., result were not as expected, result contradicted a planned policy intervention, lack of real world validity, lack of diversity of consumers in the experiment, etc.).

3. If "no, but planning to in the near future" in 1, could you please provide information regarding plans to run an experiment/trial, if possible?

4. If "no, with no plans to in the near future" in 1, could you explain why or identify any obstacles to conducting experiment/trial (e.g. lack of resource, lack of necessary expertise), if possible?

5. Has your organisation conducted (or is planning to conduct) a consumer behaviour survey to understand the factors that influence consumer decision making?

	Yes	No, but planning to in the near future	No, with no plans to in the near future
Deciding on which policies to introduce and/or understanding consumer decision making (e.g. surveys to identify consumer behaviour in a specific topic)			
Developing effective ways of policy implementation (e.g. surveys to analyse how well consumers understood the meaning of the labelling)			

6. If yes in 5,

- Could you share the results of the survey?

- If a full report is not available in English, could you please describe: i) how the surveys were conducted; ii) the results of the surveys; and iii) whether and how the results were used?

- If the survey resulted in the implementation of a new policy, could you please provide information about that policy?

- If you did not implement a new policy as a result of the survey, please explain why, especially if the reason you did not implement a policy was based either on the results of the survey or problems with the survey (e.g., results were not as expected, results contradicted a planned policy intervention, lack of real world validity, lack of diversity of consumers in the experiment, etc.).

7. If "no, but planning to in the near future", in 5, could you please provide information regarding plans for the consumer behavioural survey if possible?

8. If "no, with no plans to in the near future" in 5, could you explain why or identify any obstacles to conducting the consumer behavioural survey (e.g. lack of resource, lack of necessary expertise)?

Policy impact assessment framework

9. In the policy evaluation framework (*ex-ante* and *ex-post*) within your organisation, is the impact on consumer behaviour listed as one of the policy impacts that policy makers are encouraged to assess? If yes, information regarding the impact assessment framework would be much appreciated.

Yes _____ No ____

Behavioural economics teams / economists or analysts within the organisation

10. Does your organisation have or work with a behavioural economics team and/or behaviour economists/analysts that help consumer policy making? If yes, information on the team would be helpful. If it is possible to provide their contact information, that would also be helpful.

Yes _____ No ____

Contact person: _____

Email: _____

Application to consumer policy implementation

11. Has behavioural economics influenced the following types of policy actions by your organisation?

	Yes	No
Enforcement actions		
Regulations		
Consumer empowerment initiatives		

12. If yes in 11, please provide us with the examples or other supporting information.

Behavioural economics and information economics

13. Has information economics influenced the following types of policy actions by your organisation?

	Yes	No
Enforcement actions		
Regulations		
Consumer empowerment initiatives		

14. If yes in 13, please provide us with the examples or other supporting information.

15. If yes in 13, please explain how and when you decide to use insights from informational economics and how and when you decide to use insights from behavioural economics in policy making. Do you ever use both approaches? If so, when?

Challenges

16. What does your organisation see as challenges for using behavioural economics/insights in consumer policy making? For example,

- External validity (Results of experimentation may not be fully valid when applied to real world situations).
- Diversity of consumers and business sectors (Relevant behavioural insights may apply only to certain groups of consumers and/or certain sectors of business).
- Ethical issues (e.g. the possibility some may see policy informed by behavioural economics as "manipulation" by government; whether it is appropriate to conduct experiments targeting children or other vulnerable consumers).
- Other?

17. Please provide any other information that you believe would assist the Secretariat in prepare the report.

Thank you very much for your co-operation.

NOTES

1. Australia, Austria, Canada (3 central government authorities and 1 provincial government authority), Chile, Germany, Hungry, Japan, Switzerland (5 central government authorities), Norway, Israel and the United States submitted responses.

2. "Nudge" is an approach which authorities guide people to choose options which would achieve welfare improvement, A nudge has two defining features: *i)* it preserves free choice by not preventing selection of suboptimal choice and *ii)* findings from behavioural insights are employed to alter the decision context in a way that makes better decision more likely (Lunn, 2014).

3. OECD (2010), *Consumer Policy Toolkit*, OECD Publishing, *http://dx.doi.org/10.1787/9789264079663-en*,

4. Lunn, P. (2014), *Regulatory Policy and Behavioural Economics*, OECD Publishing, *http://dx.doi.org/10.1787/9789264207851-en*.

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