Review of literature on product disclosure

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Executive summary

Objective

Product disclosure is information that is provided to the consumer concerning the functionality and/or cost of the product, typically during or after a transaction. Effective disclosure can help improve consumer choice, first by providing the information of the key aspects of the product in a manner that is both engaging and comprehensible, and second by assisting consumers in comparing across different products.

This report aims to synthesise the literature on product disclosure in a way that will be helpful for firms when designing disclosures for their products. Identifying elements of behavioural economics that are crucial to consumer understanding and behaviour, this report looks at both academic and regulatory evidence of 'best practices' for product disclosure.

Literature on disclosure

There is a wealth of literature on product disclosure, especially following the popularisation of behavioural economics and its insights into the importance of context and presentation of information in consumer decisions. This literature review focuses on studies from the financial services sector. Research from other sectors is also included to the extent that it contains innovative findings with wide implications for disclosure.

From the academic literature, the report presents cases where changes in the disclosure regime have been evaluated and tested: what works well and what does not. Methodological tools to evaluate those changes involve both lab and field experiments, as well as ex post assessments of changes in disclosure rules.

However, there are cases where, even though disclosure has changed, there is no evidence as to its effectiveness. This may be for a variety of reasons: many disclosure initiatives are quite recent, no testing has been conducted; or the body promulgating a certain product disclosure may not wish to release the results of any relevant studies.

Furthermore, while the review is mainly composed of studies that are initiated by academics or government bodies, this does not mean that firm initiatives do not exist. Rather, firms may not be publicising any documents that evaluate the effectiveness of their disclosure policies, out of commercial considerations. Hence, it must be emphasised that there is a significant amount of work on disclosure that is conducted away from the public eye, but that nevertheless accrues benefits to consumers.

General themes of disclosure

The first part of the literature review highlights the main themes of disclosure that apply to most products, including financial services products. These are:

- design of summary disclosure;
- engagement of consumers;
- presentation of product information.

Summary disclosure is considered necessary to ensure that consumers are informed about the key aspects of a product, so that they can assess its quality and suitability. It is therefore important to select those attributes that are most important (for example, price, risk) and present them in a manner that is engaging and consistent across products to facilitate comparison. In addition, summary disclosure may include indicative measures of costs in cases where fees are particularly complex and hard to understand. For example, for home-secure credit in the USA, the summary disclosure includes a simple graphical comparison with high cost credit to indicate how close the consumer is to high cost credit.[1]

The **engagement** of consumers is a key function of disclosure. Financial services products are often difficult to engage with, due to their abstract and intangible nature. Disclosure can help to draw the attention of consumers through various methods such as providing eye-catching content—even if uninformative—and using reminders to direct attention to the appropriate information at the right time.

Effective disclosure must also aim to **present information** in such a way as to help consumers to process and understand the content. Some of the lessons that can be learned from the literature include:

- place the most important pieces of information in places where consumers are expected to focus their attention—for example, many people tend to disregard the content in the body of the letter and focus on the headlines;
- use simple language whenever possible and simple short messages—for example, the Behavioural Insights Team[2] found that letters with simplified language were much more effective in convincing doctors to clarify their tax affairs than traditional letters drafted by HMRC;
- present images that summarise the information contained in the text; for example, the Authority for the Financial Markets in the Netherlands requires that information for each fund is summarised in a leaflet containing both text and images which show graphically the degree of the risk. The leaflet contains an illustration of a man carrying a burden, and the burden becomes heavier as the risk increases;
- the effectiveness of format depends on the medium of communication (for example, SMS, on-screen, paper).

Themes specific to financial services

Financial services products have certain attributes that make product disclosure especially challenging. In particular, they involve an element of risk with uncertain costs and returns, they have multiple prices and price points, and they commonly use percentages and compounding, which many consumers have trouble understanding.

Risk is an integral part of many financial services products. Many consumers have difficulty assessing risk and can be easily influenced by how the information is framed and presented. Many consumers tend to use information that may seem intuitively useful, although in reality the information is spurious.

[1] Federal Reserve Board (2011), 'Designing Disclosures to Inform Consumer Financial Decision-making: Lessons Learned from Consumer Testing', Federal Reserve Bulletin, 21 October, accessed 22 April 2014.
[2] Cabinet Office and Behavioural Insights Team (2012), 'Applying behavioural insights to reduce fraud, error and debt', February.

For example, in assessing funds, consumers tend to place too much weight on past performance, even if they are warned that it is unrelated to future returns.[3]

Furthermore, consumers tend to be subject to a variety of behavioural biases—such as availability and optimism bias—which cause them to ignore pertinent information and wrongly assess risk. For example, people tend to overestimate the likelihood of outcomes that are particularly memorable, highly emotional or have happened recently.[4] Findings from other sectors, such as energy and food labelling, suggest that disclosure can facilitate the assessment of risk by using graphic images and categorical labels (for example, rate risk from 1–5).

The complexity of financial services products means that they often involve **multiple prices** and charges, both at the time of purchase and during the use of the product. While the existence of multiple prices may be a result of the product structure (for example, for funds, there are multiple agents that charge fees along the chain), in certain cases producers exploit consumer biases such as loss aversion and engage in detrimental practices such as drip pricing. Findings from the literature suggest that disclosure should aim to roll all charges into one, where possible.

Behavioural biases may also lead consumers to ignore charges that may be incurred during the use of a product (for example, overdraft charges). In such cases, disclosure at the point of sale may not be sufficient to avoid such outcomes, since consumers tend to forget about these charges. A more effective strategy would be to disclose the relevant information at the point where they may be incurred or provide frequent reminders. Certain mobile phone providers in the UK (for example, giffgaff) have a screen message following each call, which tells the consumer the duration of the call and the remaining balance.

The most commonly used number format in financial services products is the **percentage**. However, despite its ubiquity it is not universally understood by consumers. Furthermore, the overall cost of return of a product may depend on the compounding of regular percentage amounts, potentially adding more complexity. Several studies have shown that showing charges and fees in absolute terms, rather than percentages, helps consumers to better understand the product features, particularly for financially illiterate consumers.[5]

There have been several successful policy initiatives to help consumers deal with their lack of understanding of percentages. In certain markets, the regulator requires charges to be displayed both in percentages and absolute terms. As part of its 'Know Before You Owe' initiative, the US Consumer Financial Protection Bureau requires that mortgage providers provide all costs and payments in dollars, in addition to the interest rate.[6]

The US CARD Act 2009 requires lenders to include in each bill an explicit calculation of the time and cost of repaying the balance through minimum monthly payments, and a similar calculation for the cost of repaying over 36 months. An example is shown in the figure below.

[3] Diacon, S. and Hasseldine, J. (2007), 'Framing effects and risk perception: The effect of prior performance presentation format on investment fund choice', *Journal of Economic Psychology*, **28**:1, pp. 31–52.
[4] Chuah, S.H. and Devlin, J. (2011), 'Behavioural economics and financial services marketing: a review', *International Journal of Bank Marketing*, **29**:6, pp. 456–69.
[5] Hastings, J.S. and Tejeda-Ashton, L. (2008), 'Financial literacy, information, and demand elasticity: Survey and experimental evidence from Mexico', NBER Working Paper No. 14538.
[6] See Consumer Financial Protection Bureau, 'Know Before You Owe' (http://www.consumerfinance.gov/knowbeforeyouowe, accessed 12 May 2014).

Example of mandated disclosure under the US CARD Act 2009

New balance	$3,000.00
Minimum payment due	$90.00
Payment due date	4/20/12

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay a $35 late fee and your APRs may be increased up to the Penalty APR of 28.99%.

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

If you make no additional charges using this card and each month you pay. . .	You will pay off the balance shown on this statement in about. . .	And you will end up paying an estimated total of. . .
Only the minimum payment	11 years	$4,745
$103	3 years	$3,712 (Savings = $1,033)

Source: Federal Reserve Board (2010), 'New Credit Card Rules Effective Feb.22' (http://www.federalreserve.gov/consumerinfo/wyntk_creditcardrules.htm).

Effective disclosure can also help consumers find the most suitable products for their needs. Consumers sometimes suffer detriment because they choose unsuitable products (for example, using short-term credit for long-term needs). Disclosure can be helpful in this respect by emphasising the proper use of the product and providing warnings for those product features that may lead to consumer detriment.

Disclosure of product usage

Regulatory initiatives have largely centred on disclosure of product features. However, the total cost and benefit of a particular product depends on the product attributes and costs, as well as the overall usage of the product. Disclosure has a role in reducing the misperception, both in terms of the product attributes and in terms of the future usage of the product. A novel regulatory approach called 'Smart Disclosure' has been encouraging the **disclosure of information on consumers' own use patterns**. Consumers can then upload their usage information into a comparison website, which can tell them the cost of their usage from other providers. Product usage information can also be used by the same provider to recommend contracts that may be more suitable. Some initiatives based on this idea have begun recently and have been labelled 'MyData' or 'MiData' in the UK.

Methods to evaluate product disclosure

The report also provides an overview of approaches for evaluating product disclosure. These include methods that can be used to inform prototype disclosure design, such as literature reviews and qualitative market research techniques. Once a disclosure has been designed, it can be tested via laboratory experiments, which can either involve hypothetical choices, with no consequences for participants, or choices where participants receive some payout depending on decisions made during the study. Also, disclosure can be tested in field studies, which involve some element of randomisation with a treatment group of actual customers receiving the new disclosure, and a control group of actual customers receiving a control disclosure.

1 Introduction

1.1 Objectives and scope

This report is part of a larger project by the Financial Conduct Authority (FCA), intended to help firms in the financial services sector to improve product disclosure, such that they can better engage consumers and help them understand and process the information provided.

The objective of this report is to summarise the academic literature concerning product disclosure, focusing on the insights provided by behavioural economics.[7] This review is intended to highlight key elements of disclosure that the evidence suggests increase consumer understanding and engagement.

1.2 Approach to the literature review

The review of the academic literature consisted of the following steps.

- First, key papers investigating the use of behavioural economics in policy were identified and those studying issues that are related to disclosure included.[8]
- Second, the papers cited in the studies mentioned above were reviewed for relevance, and included in this report as appropriate. In the event that a paper was outdated, more recent papers that cited the older studies were used.
- Finally, Internet search tools such as Google Scholar and SSRN were used to identify a large number of papers on product disclosure.

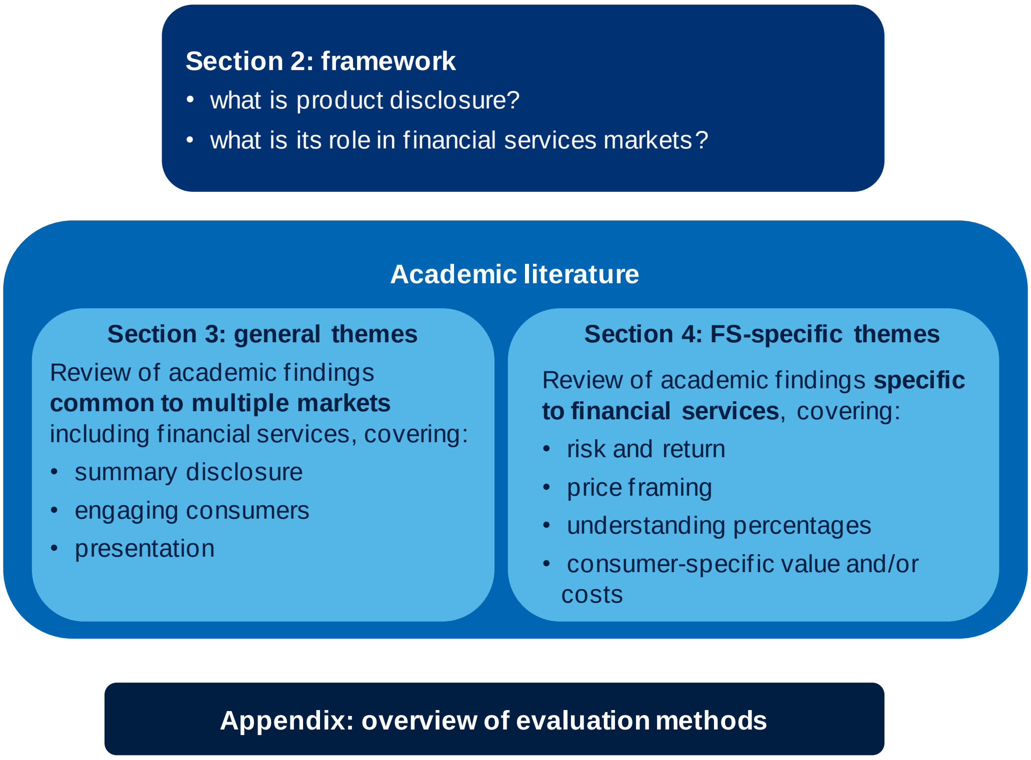
The final list of articles that has been reviewed in this report was agreed with the FCA.

1.3 Structure of this report

The figure below provides an overview of the structure of this report.

[7] Although this review includes some studies conducted by financial regulators or other public bodies, a comprehensive review of interventions by and experience from regulators was beyond the scope of this report.
[8] See, for example, Sunstein, C.R. (2013), *Simpler: the future of government*, Simon and Schuster.

Figure 1.1 Report structure



Source: Oxera.

1.4 Academic literature

There is a wealth of literature on product disclosure, especially following the popularisation of behavioural economics and its insights into the importance of context and presentation of information in consumer decisions. This literature—both the academic and regulatory elements—includes studies concerning financial services markets as well as other sectors; influential research on disclosure has been conducted both in the UK and abroad.

Oxera has focused this review predominantly on cases where disclosure has been evaluated and empirically tested: what works well and what does not? It is not uncommon for disclosure materials to be subjected to qualitative or quantitative studies prior to being implemented at large.

However, what is often still lacking is an impact assessment of changes in disclosure, and robust findings based on ex post reviews as to what works well, and what does not. This may be for a variety of reasons: many disclosure initiatives are quite recent, no testing may have been conducted, or the body promulgating a certain product disclosure may not wish to release the results of any studies done on the new disclosure.

Generally, testing of disclosure has focused on a combination of quantitative consumer surveys and detailed, qualitative interviews. In both cases, participants are typically shown one or more disclosures, and subsequently asked to respond to questions, aimed at checking their understanding of information presented in the disclosures and/or simply asking for their views on the disclosures. Many studies employ randomised controlled trials, where participants are (randomly) assigned to different ‘disclosure groups’ and the outcomes of each group are compared with the control group, which typically receives the standard disclosure. Randomised studies have been conducted both within a controlled experiment[9] and in the field.[10]

The studies of disclosure included in this review were almost exclusively initiated by either academics or government bodies; however, this does not mean that firm initiatives in improved disclosure are lacking. Rather, due to the value that consumers place on honesty and transparency, for many firms, developing informative and engaging disclosures can give them a competitive edge. Naturally, if a firm did test their disclosure documents developed for this reason, it would not be commercially prudent to make the results of the tests publicly available. Hence, it is important to keep in mind that there is a significant amount of work on disclosure that is conducted away from the public eye, but that, nevertheless, accrues benefits to consumers.

There is substantial evidence to indicate that well-designed disclosure documents can assist consumers in taking better decisions. Disclosure is an important element of ensuring that consumers understand the features of the product they are purchasing, as well as all of the costs and risks involved with the product. Certainly, there may be consumer groups that react differently to disclosure, and a fine tuning of disclosure may result in some groups always being somewhat at a disadvantage. However, a thorough analysis of disclosure-related literature shows that there are select themes and guidelines for good disclosure that are consistent across products and consumers. At the same time, the appropriate application of these guidelines may vary from case to case.

Furthermore, an important conclusion of this review is that disclosure materials should always be tested to make sure that they will actually be beneficial to consumer outcomes. It is also important that any testing, whether done through controlled experiments or field studies, is done in a realistic setting.

Testing of disclosure is crucial, as poorly designed disclosure may actually lead to consumer detriment. First, a poor product disclosure may result in consumers not assessing key information relevant to a purchase, and, consequently, purchasing inappropriate products. The design and content of disclosure is critical to consumer understanding and engagement with the purchasing decision, and is often sensitive to seemingly minor changes. Hence, if an updated disclosure is not tested thoroughly, there is a risk of it not only failing to help consumers find relevant information, but also obfuscating points that are crucial to consumers' understanding of the product in question.[11] Furthermore,

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[9] See, for example, Lacko, J.M. and Pappalardo, J.K. (2004), 'The Effect of Mortgage Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment', Federal Trade Commission Bureau of Economics Staff Report, February.

[10] See Bhargava, S. and Manoli, D. (2014), 'Why are Benefits Left on the Table? Assessing the Role of Information, Complexity, and Stigma on Take-up with an IRS Field Experiment', V Working Paper, University of Texas at Austin.

[11] For example, the Federal Reserve proposed disclosures for mortgage broker compensation to address concerns about conflict of interests, anticipating that they would increase competition. However, following consultation, it did not adopt the rules, as interviews with consumers suggested that those disclosures would have confused them rather than help their decision-making process (Federal Reserve Board (2011), 'Testimony of Sandra Braunstein, Director of Division of Consumer and Community Affairs, Federal Reserve, before the Subcommittee on Insurance, Housing, and Community Opportunity, Committee on Financial Services, U.S. House of Representatives, Washington, D.C., July 13, 2011', accessed 21 May 2014.). This is consistent with the findings from a 2004 study by the Federal Trade Commission which used an economic experiment. It was found that consumers treated the commission information as particularly salient. They placed too much emphasis on the commissions, and too little on whether the loan was keenly priced. Consumers paid more for their loans than they would have in the absence of the commission information. This also created a bias against broker-arranged loans, even when the broker loans cost the same or less than direct lender loans. By placing brokers at a disadvantage to direct lenders, this could generate less competition and higher costs for all mortgage customers (Lacko, J.M. and Pappalardo, J.K. (2004), 'The Effect of Mortgage

disclosure materials may also have other negative unintended consequences. For example, disclosure can allow for increased firm coordination and tacit collusion, especially when disclosure includes simplified or prominently displayed prices (although it should be noted that there are limited recent examples of mandated disclosures having been shown to result in these unintended consequences).[12]

Disclosure requirements can therefore be used by regulators to protect and help consumers. While this is one of many regulatory tools, it is important to recognise both the benefits and pitfalls of disclosure as a regulatory mechanism.

Product disclosure is less intrusive than more direct regulatory approaches such as price controls or regulation of product standards. Furthermore, disclosure allows market mechanisms to function, preserving both consumer choice and firm competition. In other words, product disclosure can nudge consumers, and subsequently firms, to scenarios with better consumer outcomes, instead of forcing outcomes.

However, product disclosure may not be an adequate tool for some cases of consumer abuse. Indeed, there may be cases where disclosure is not cost-effective—for example, if implementation costs for changing product disclosure are high and increased engagement is minimal. Additionally, some situations simply cannot be resolved through disclosure—for example, cases of abuse of dominance by a monopolist.

Broker Compensation Disclosures on Consumers and Competition: A Controlled Experiment', Federal Trade Commission Bureau of Economics Staff Report, February.)

[12] In the early 1990s, the Danish Competition Council began publishing price data for concrete in order to encourage consumers to switch between suppliers. One study argued that the significant increase in prices within a year of the data publication was indicative that price transparency actually facilitated tacit collusion, as the market did not experience an increase in input costs or demand (Albæk, S., Møllgaard, H.P. and Overgaard, P.B. (1996), 'Law-assisted collusion?: the transparency principle in the Danish competition act', *European Competition Law Review*, **17**:6, pp. 339–43.).

2 What is product disclosure?

2.1 What is product disclosure?

Product disclosure is information that is provided to the consumer concerning the functionality and/or cost of a product, typically during or after a transaction. The decision-making process during a purchase can be divided into three stages: consumers need to be able to access the relevant information, assess that information, and act upon their assessment.[13] The goal of disclosure is to ensure that consumers can access and assess the information relevant to a purchasing decision—i.e. for consumers to engage with sufficient information to make a beneficial purchase.[14]

The content or format of disclosure may vary depending on several dimensions of the purchasing decision. First, the sale channel of a product is important, as disclosure may not be via the same channel—for example, a purchase made by phone may result in the relevant disclosure being sent electronically or by post. Other elements of the sales channel may also be relevant to disclosure and how it is perceived by consumers—for example, if the sale is advice-based or if the product is sold as an add-on. The timing of a disclosure can also vary—some disclosures are provided prior to a purchase, some during the transaction process, and some after the purchase has been made.

Disclosure also influences product design, which is particularly relevant to financial services products. Disclosure requirements influence market outcomes as well as firms' incentives for offering simpler, more specialised products versus more versatile products with additional functions. Similarly, disclosure regimes may affect the pricing of a product, perhaps by allowing for less price discrimination, or by restricting the number of charges a firm can include for a product.

More generally, product disclosure interplays with other aspects of products such as branding and customer charters. Disclosure is an integral part of a firm's advertising, and therefore partly determined by the firm's marketing policy. At the same time, a change in disclosure requirements by the regulator may change the branding and advertising strategy that a firm pursues, focusing, for example, on characteristics not included in current disclosure. Customer charters are voluntary statements through which firms commit themselves to certain good practice; disclosure requirements may influence what is included in these charters.

2.2 Consumer biases and implications for product disclosure

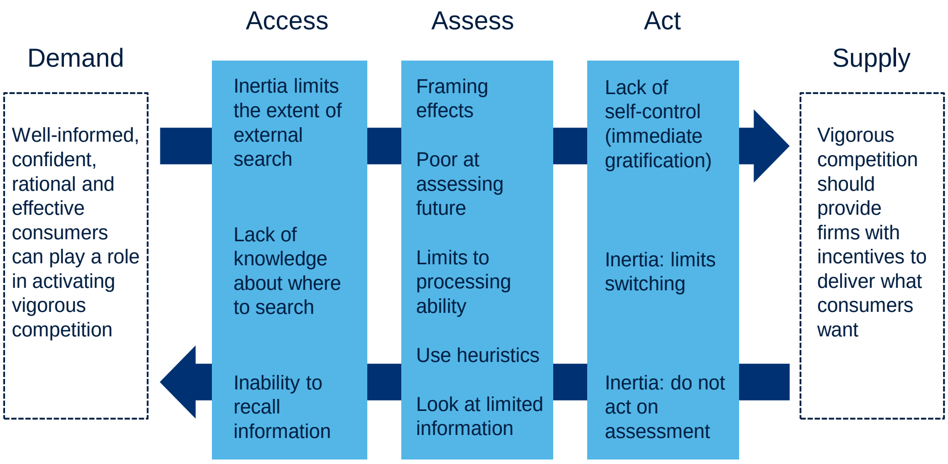
Consumers often fail to make correct choices because they do not have the necessary product information to make those choices. However, simply providing more information may be ineffective, as consumers are often not able to process all of the available information—either because they do not understand it or they do not have the time available to do so.

The Office of Fair Trading (OFT) observes that in order to make markets work, we need engaged consumers, able to assess, access, and act on information. Behavioural biases (as outlined in Figure 2.1 below) affect the effectiveness with which consumers can access, assess and act on product information. Firms can

[13] Office of Fair Trading (2010), 'What does Behavioural Economics mean for Competition Policy?', March.
[14] Disclosure addresses accessing and assessing information; however, other regulatory tools may be necessary to allow consumers to act (see discussion in section 1.4).

exacerbate consumer biases at each stage of the decision-making process—for example, hiding fees and restrictive terms and conditions to limit consumer access, and offering complex pricing structures to reduce consumers' ability to assess the value of the product/service.[15]

Figure 2.1 Access, assess and act on information



Source: Based on Office of Fair Trading (2010), 'Behavioural economics and competition policy', presentation by Amelia Fletcher, OFT behavioural economics seminar, 22 April.

However, thoughtfully designed disclosure can alert consumers to these predatory elements, or frame the relevant decision in a way that mitigates the effects of behavioural biases on consumer decisions. Disclosure can help consumers to improve their choices by properly informing them of the product features and helping them to compare products across various providers.

Table 2.1 presents a list of biases and how these are relevant to product disclosure. The list is by no means comprehensive, but highlights the key biases and disclosure-related elements that may decrease the influence of biases in consumers' decisions.

Table 2.1 The relevance of behavioural biases to product disclosure

Bias	Predictable mistakes caused by biases	Relevance to disclosure
Present bias	People may over-borrow and pay down debt slower than they want	People ignore charges that may be incurred in the future or changes in the interest rate
Reference dependence and loss aversion	Consumers susceptible to drip pricing People may purchase add-ons such as PPI because the price relative to the product price is small	People are influenced by how product and price information is framed
Overconfidence	Consumers may downplay or neglect information about the risks of a particular product—e.g. the risk of failing to make payments on a loan	People may ignore statistical information that contradicts their beliefs
Inattention	People forget about overdraft charges	Consumers may not notice relevant charges if they are not salient enough in the disclosure document

[15] Office of Fair Trading (2010), 'What does Behavioural Economics mean for Competition Policy?', March.

Bias	Predictable mistakes caused by biases	Relevance to disclosure
Availability bias	Consumers wrongly extrapolate from a few observations in their personal experience to assess risk	People ignore valid statistical information
Decision making rules of thumb	People use past performance of funds to assess future returns	Disclosure of past performance information is misleading

Source: Oxera.

3 Literature review: general themes

This section presents a literature review of product disclosure that applies to most products. The literature can be summarised in the following three themes:

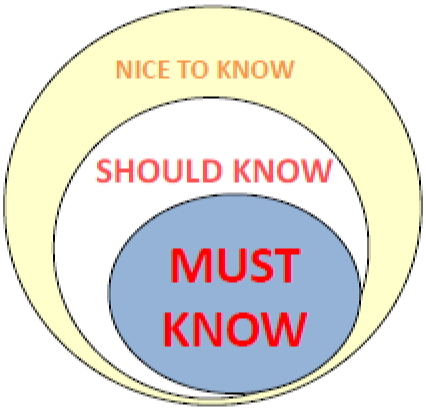
- designing summary disclosure;
- engaging consumers;
- presentation.

3.1 Summary disclosure

3.1.1 Issue

For many products and services, full disclosure may result in information overload, which in turn may cause consumers to either ignore information or fail to discern which information is important within a disclosure document.[16] Recognising the limitations on consumer time and attention, the European Insurance and Occupational Pensions Authority (EIOPA) recommends that the most important information relating to pension schemes be provided upfront, in a form of summary disclosure. As seen in Figure 3.1, there is a nesting of information, depending on how important it is to the consumer's decision.

Figure 3.1 EIOPA's layering of information concerning consumer decisions



Source: European Insurance and Occupational Pensions Authority (2013), 'Good practices on information provision for DC schemes', Report, January, p. 25.

Hence, 'summary disclosure' is considered necessary to ensure that consumers are informed about the key aspects of a product and can therefore assess its quality and suitability. To serve this purpose, the literature suggests that summary disclosure must: (i) include only the most relevant information; and (ii) be designed in a manner that is effective in informing consumers.[17]

Generally, the purpose of summary disclosure is not to replace full disclosure, but to serve as an addition to lengthier disclosure documents. Summary disclosure is particularly beneficial for consumers who find reading the full information disclosure too challenging either because they may not understand the information or because they do not have the available time to process the

[16] Ben-Shahar, O. and Schneider, C.E. (2011), 'The Failure of Mandated Disclosure', *University of Pennsylvania Law Review*, **159**, pp. 687–90.
[17] Office of Information and Regulatory Affairs (2010), 'Memorandum on Disclosure and Simplification as Regulatory Tools', Memorandum for the Heads of Executive Departments and Agencies, 18 June.

information. It should be borne in mind that creating summary disclosure may increase the chance that some consumers will ignore the full disclosure, and instead only engage with the summary.

3.1.2 Identifying the aspects to include in summary disclosure

Summary disclosure is intended to include only the most important information concerning a product. While the specifics may vary from product to product, they will often include the following.

- **Product attributes**: these explain the function that the product fulfils, which in turn helps consumers to assess whether the product suits their needs.
- **Prices**: these are fundamental to allowing consumers to assess the value of a product/service, and whether it best suits their needs.
- **Usage charges and changes in costs**: many financial products include charges that depend on usage or that can change after the product is purchased. These charges must be included in summary disclosure to reduce the chance of consumers failing to acknowledge these costs. For example, prominent displays of usage costs have resulted in more study participants recognising that a mortgage loan has a prepayment penalty[18] (see Figure 3.2 for an example of usage fees, i.e. 'Penalties and late fees'). Also, study participants were better able to understand credit card transactions and their associated fees when usage costs were presented more prominently, as per Figure 3.3.[19]

[18] Federal Trade Commission (2007), 'Improving Consumer Mortgage Disclosures', June, p. ES-8.
[19] Macro International Inc. (2008), 'Design and testing of Effective Truth in Lending Disclosures', prepared for the Board of Governors of the Federal Reserve System, 15 December.

Figure 3.2 Federal Trade Commission (FTC) prototype mortgage disclosure

Mortgage Loan Offer
JL Mortgage Company
123 Main Street
Mortgagetown, Virginia 22189
(703) 555-2767

LOAN "K"

Page 1 of 3

Borrower: James and Clara Borrower
Property Location: 123 Your Street, Hometown, VA 22189
Offer Date: October 14, 2005

This page provides a summary of your loan, our charges for the loan, and your loan payments. See pages 2 and 3 for important details on each of these items.

YOUR LOAN

Loan Type Summary	30 year fixed-rate
Loan Amount	$ 175,425.00
Loan Term	30 years (360 monthly payments)

OUR LOAN CHARGES

Interest Rate	6.20%	Fixed rate
Up-Front Charges	$ 5,303.39	Total settlement charges
	$ 0.00	Charges for optional products and services
	$ 5,303.39	Total up-front charges
Monthly-Billed Charges	None	
Annual Percentage Rate (APR)	6.38%	The cost of credit, including both interest payments and other finance charges, expressed as an annual rate.

YOUR LOAN PAYMENTS

Cash Due at Closing	$ 5,303.39	
Monthly Payments	$ 1,074.42	Payments number 1–360 (Does NOT include required payments for property taxes and hazard insurance.)
Balloon Payment	None	

PENALTIES AND LATE FEES

Prepayment Penalty	A penalty of four percent (4%) of the prepaid loan balance will be charged if the loan is paid off during the first five years. An immediate refinancing of the loan would result in a penalty of $7,017.00.
Late Fee	A 5% late fee will be charged on payments more than 7 days late.

Source: Federal Trade Commission (2007), 'Improving Consumer Mortgage Disclosures', June, p. H-19.

Figure 3.3 Federal Reserve Board (FRB) prototype credit card disclosure

Interest Rates and Interest Charges	
Annual Percentage Rate (APR) for Purchases	**0.00%** (Intro. APR through your May 2009 billing cycle) **11.99%** (Standard APR after May 2009) Your standard APR will vary with the market based on the Prime Rate.
APR for Cash Advances and Balance Transfers	**20.99%** This APR will vary with the market based on the Prime Rate. Cash advance and balance transfer fees will also apply (see Fees section below).
Loss of Introductory APR	We will end your introductory APR and apply the standard APR to your outstanding balance if you perform any of the actions listed in the Penalty APR row below.
Penalty APR and When It Applies	**31.99%** This APR may be applied to your account if you: 1) Make a late payment twice in a six-month period; 2) Go over your credit limit; or 3) Make a payment that is returned. **How Long Will the Penalty APR Apply?:** If your APRs are increased for any of these reasons, we may keep them at this higher level indefinitely.
How To Avoid Paying Interest On Purchases	Your due date is at least 24 days after the close of each billing cycle. We will not charge you interest on purchases if you pay your entire outstanding balance (excluding promotional balances) by the due date each month.
Minimum Interest Charge	If you are charged interest, the charge will be no less than $1.50.
For Credit Card Tips from the Federal Reserve Board	To learn more about factors to consider when applying for or using a credit card, visit the website of the Federal Reserve Board at **www.federalreserve.gov/location**.

Fees	
Annual Fee	**$60**
Transaction Fees	
• Balance Transfer	**$20** if amount of transfer is less than or equal to $1,000; **$30** if amount of transfer is more than $1,000
• Cash Advance	Either **$10** or **5%** of the amount of each cash advance, whichever is greater.
• Foreign Transaction	**2%** of the amount of each transaction.
Penalty Fees	
• Late Payment	**$24** if balance is less than or equal to $1,000; **$27** if balance is more than $1,000 (Your APRs may also increase; see Penalty APR section above.)
• Returned Payment or Over-the-Credit Limit	**$35** (Your APRs may also increase; see Penalty APR section above.)

How We Will Calculate Your Balance: We use a method called "average daily balance (including new purchases)".

Source: Macro International Inc. (2008), 'Design and testing of Effective Truth in Lending Disclosures', prepared for the Board of Governors of the Federal Reserve System, 15 December, Appendix B, Model 9.

- **Risk**: if a product has some form of inherent risk, a statement of the riskiness, preferably accompanied by some rating or example quantification of the risk is important to include in summary disclosure. In this way, the potential downside of the product is made more salient to consumers, who may often ignore downside risk due to optimism bias.[20]

[20] An example of a visual representation of the risk of a product is the figure used by the Netherlands Authority for the Financial Markets, as discussed in section 4.1.

- **Indicative estimates**: for products with complex fee structures or fees charged as percentages or according to usage, an example estimate based on 'typical' usage is useful for informing consumers about the actual costs of the product (see Figure 3.4 for an example).[21] Additionally, if there is risk involved with a product, giving actual monetary estimates of typical performance for 'good' outcomes and 'bad' outcomes may also be advisable.

Figure 3.4 Environment Protection Agency (EPA) fuel efficiency label

Source: Environmental Protection Agency (2011), 'New Fuel Economy and the Environment Labels for a New Generation of Vehicles', Report, May, p. 3.

Overall, the product features to include in summary disclosure can be informed by considering the consumer's experience of the product/service, and identifying those features that are most likely to influence this.[22]

3.1.3 Design of summary disclosure

The design of summary disclosure is critical to consumer engagement. Poorly designed summary disclosure may be comparatively ineffective in achieving its purpose—i.e. to provide information to consumers who do not engage with long disclosure documents. The literature suggests that the main features that each summary disclosure should target are as follows.

- **Consistency and comparability**: consumers must be able to use the information contained in the summary disclosure in order to facilitate the comparison across various types of products from different providers. Therefore, there need to be common metrics with which to compare providers (e.g. annual percentage rate (APR) for consumer credit). Additionally, a common format with key metrics placed in the same location within the summary disclosure is needed to facilitate consumers' comparison of the information in the disclosure. Examples of such common formats can be

[21] For example, the annual fuel cost of cars and the average savings over a five-year period are included in the Environmental Protection Agency's new fuel efficiency summary disclosures. See Environmental Protection Agency (2011), 'New Fuel Economy and the Environment Labels for a New Generation of Vehicles', Report, May.
[22] See section A1.2 for an example of how consumer experiences can be used to inform product disclosure.

found on the Consumer Financial Protection Bureau's (CFPB) website, and include mortgages, credit cards, student loans, and pre-paid cards.[23]

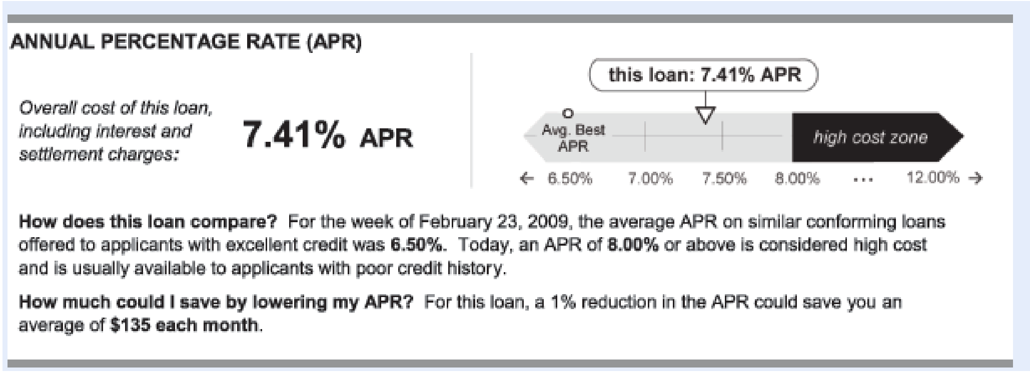
- **Easy access**: summary disclosure must be easily accessible by consumers.[24] It should therefore be prominently displayed and placed in an intuitive part of the disclosure documentation to ensure that consumers have easy access to it.[25]

- **Present costs in both percentage and absolute terms**: many consumers find percentages confusing (see section 4.3 for a more detailed discussion of this).[26] Therefore, in addition to presenting charges and fees in percentage terms, it is helpful for summary disclosure to include costs in tangible units, where possible, often with one or more example quotes in monetary terms.[27]

- **Ratings and warnings**: ratings or warnings for products that rate poorly compared with their counterparts are often helpful in highlighting the downside of the particular product vis-à-vis its competitors. Examples of scales that are used for comparing products include vehicle fuel economy stickers[28] and APR graphics for home-secured credit,[29] the latter of which can be seen in Figure 3.5 below. It is important, however, that the scales or comparisons are clear to consumers, and measure a meaningful aspect of the product in question.[30]

[23] Consumer Financial Protection Bureau (2014) 'Prepaid cards: Help design a new disclosure', 4 April (http://www.consumerfinance.gov/blog/prepaid-cards-help-design-a-new-disclosure/, accessed 23 April 2014).
[24] In the payday lending market investigation, the Competition Commission assessed the accessibility of information about product characteristics, by recording the number of clicks (or 'page down' button presses) from the homepage needed to reach the information. They also assessed how clearly the information was presented (font size and weight (normal, bold, grey/faded)) (Competition Commission (2014), 'Review of the websites of payday lenders and lead generators', Report, January).
[25] This is generally true of text within a disclosure. See Ramsay, I. (2002), 'Disclosure of fees and charges in managed investments', Australian Securities and Investments Commission, 25 September.
[26] Ageing Agendas (2000), 'Summary of the Outcomes of Consumer Testing of the ASFA Super Choice Key Features Statements', report prepared for the Association of Superannuation Funds of Australia Ltd, December. As found in: Ramsay, I. (2002), 'Disclosure of fees and charges in managed investments', Australian Securities and Investments Commission, 25 September, pp. 43–45.
[27] See Example 1 in Federal Reserve Board (2011), 'Designing Disclosures to Inform Consumer Financial Decision-making: Lessons Learned from Consumer Testing', Federal Reserve Bulletin, 21 October, accessed 22 April 2014.
[28] Environmental Protection Agency (2011), 'New Fuel Economy and the Environment Labels for a New Generation of Vehicles', Report, May.
[29] See Example 1 in Federal Reserve Board (2011), 'Designing Disclosures to Inform Consumer Financial Decision-making: Lessons Learned from Consumer Testing', Federal Reserve Bulletin, 21 October, accessed 22 April 2014.
[30] Office of Information and Regulatory Affairs (2010), 'Memorandum on Disclosure and Simplification as Regulatory Tools', Memorandum for the Heads of Executive Departments and Agencies, 18 June.

Figure 3.5 Federal Reserve Board's home-secure credit disclosure graphic



Source: Federal Reserve Board (2011), 'Designing Disclosures to Inform Consumer Financial Decisionmaking: Lessons Learned from Consumer Testing', Federal Reserve Bulletin, 21 October, Example 1, accessed 22 April 2014.

Box 3.1 The 'accumulation problem' in disclosure

Many consumers may not engage with disclosure, not because any one disclosure is poorly designed but because of the large number of disclosures that consumers are faced with. Since disclosures accompany many products and services, it is common for consumers to be continually exposed to disclosure materials: this accumulation of information from different sources creates a type of overload problem.[31] As a result, some consumers may not engage with the most important disclosures they are presented with, since their attention has been focused on other disclosures.

Hence, it is important that any specific disclosure be tested and considered within the general information and disclosure 'landscape' of all of the disclosures with which a consumer is likely to be presented. In particular, for a regulator that is able to set disclosure for many products, considering how a particular disclosure will affect the other disclosures it has control over may be an important consideration for ensuring effectiveness of disclosures.

While on a wider scale this may be difficult to do, a first step may be to consider the effect of a product's disclosure when a consumer is shopping around for a given product. In other words, how effective will a disclosure be if a consumer is comparing multiple offers, as opposed to if the consumer is making a binary decision on whether to purchase a specific product from a particular firm? More generally, when considering specific products, it is important to assess the importance of that product's disclosure versus disclosures for other products that a consumer can be expected to encounter. For the less important products, less engaging or even no disclosure may be appropriate; for more important products, disclosure that is more engaging is desirable.[32]

Source: Oxera.

3.2 Engagement

There are a number of products and services that consumers may not engage with sufficiently. Examples include healthcare, dental care, utility bills, and several retail financial services products such as pensions, insurance products, and current accounts. Often the reason is that these products are more abstract and less tangible than many other more visible goods and services. A pension plan, as set out in a detailed information pack of documents which outline the product features, is much more abstract than a piece of furniture or a bus

[31] Ben-Shahar, O. and Schneider, C.E. (2011), 'The Failure of Mandated Disclosure', *University of Pennsylvania Law Review*, **159**, pp. 687–90.
[32] Loewenstein, G., Sunstein, C.R. and Golman, R. (2013), 'Disclosure: Psychology Changes Everything', Harvard Public Law Working Paper No. 13-30, p. 22.

journey.[33] People tend to be less responsive to information that is abstract and statistical (as financial services disclaimers typically are) than information that is salient and vivid.[34]

Furthermore, consumers may fail to engage with some financial services products because these products are linked to negative outcomes that the consumer would like to avoid considering. For example, a consumer may not think of the possibility of missing loan payments, thus avoiding investigating the cost of a late payment fee. People's **tendency to avoid paying attention to undesirable outcomes** was examined in a study that measured daily investor online logins for 401(k) and other retirement accounts. The study showed that investors tend to log in to look at their portfolio when the market does well, but tend to 'put their head in the sand' and check their portfolios less frequently when the market declines.[35] Sometimes the root cause may also be present-biased preferences and memory limitations, resulting in consumers deferring small upfront costs and increasing the risk of a large cost in the future. An example of this type of behaviour is delaying dental/health check-ups.[36]

To overcome this lack of attention, it is important that information is presented in such a way as to engage consumers in the process of purchasing the product and to encourage them to become familiar with product prices and characteristics. There are several key points from the literature on how to attract consumer attention and facilitate consumer choice.

- **Include features that attract attention to disclosure even if the content is uninformative**. An experimental study in South Africa conducted a large-scale direct-mail field experiment to evaluate the effects of advertising content on consumers' loan decisions.[37] They found that showing a photo of an attractive woman resulted in a significant increase in loan demand. Moreover, the authors suggested that this form of uninformative advertising content triggered 'peripheral' or 'intuitive' responses (effortless, quick, and associative) rather than more 'deliberative' responses (effortful, conscious, and reasoned). These findings are not surprising, since such marketing strategies, which successfully appeal to consumers with non-informative advertising, are very common and long pre-exist the study. For example, financial services providers use mathematical images such as numbers, figures, simple equations and charts to attract the attention of readers and project a more trustworthy image of their brand.[38]
- However, it must be noted that **content that is appealing may also be misleading**. For example, 'teaser rates' on credit cards and savings accounts

[33] Gilbert (2006) points out that objects we can see come to mind more readily, since they activate the visual cortex (the part of the brain responsible for processing visual information) (see Gilbert, D. (2006), *Stumbling on Happiness*, Knopf).
[34] Sunstein, C.R. (2013). *Simpler: the future of government*, Simon and Schuster.
[35] Sicherman, N., Loewenstein, G., Seppi, D.J. and Utkus, S.P. (2012), 'To look or not to look: Financial attention and online account logins', working paper.
[36] Laibson, D. (1997), 'Golden eggs and hyperbolic discounting', *Quarterly Journal of Economics*, 112:2, pp. 443–78; Loewenstein, G., Brennan, T. and Volpp, K.G. (2007), 'Asymmetric paternalism to improve health behaviors', *Journal of the American Medical Association*, **298**:20, pp. 2415–417; Thaler, R. and Sunstein, C. (2008), *Nudge – Improving Decisions About Health, Wealth and Happiness*, New Haven, CT: Yale University Press.
[37] Bertrand, M., Karlan, D., Mullainathan, S., Shafir, E. and Zinman, J. (2010), 'What's advertising content worth? Evidence from a consumer credit marketing field experiment', *Quarterly Journal of Economics*, **125**:1, pp. 263–306.
[38] Czarnecka, B. and Evans, J. (2013), 'Wisdom Appeals in UK Financial Services Advertising', Journal of Promotion Management, 19:4, pp. 418–34.

may draw people's attention, but they may also mislead them, as people tend to focus on headline prices (discussed in section 4.2).

- **Reminders can work**: in a variety of settings, reminders have been found to engage consumers. In a US study, paper reminders mailed to individuals eligible for the earned income tax credit (EITC) resulted in a significant increase in take-up of EITC benefits.[39] Also, SMS reminders have been shown to increase the frequency of loan repayments[40] and saving rates.[41] Additionally, postcard reminders for a dental check-up, including the dentist's name, phone number and address, doubled the number of dental appointments in the following months.[42] It must be noted that the framing of information in the reminders did not have a differential effect on behaviour (for example, highlighting the benefits of loan repayment or dental check-ups versus highlighting the costs associated with missed repayments or deferred check-ups).

3.3 Presentation

In addition to engaging consumers, disclosure should aim to present information in such a way as to assist consumers in processing and understanding product features and prices. Several lessons can be learned from the existing studies on the presentation of disclosure information.

- **Place important pieces of information where consumers are expected to focus their attention**. People typically focus on information given at the start of a letter or email. This was demonstrated most noticeably by eye-tracking research conducted for Royal Mail in 2010, which showed that consumers tend to disregard the content in the body of a letter and focus largely on the headline information or highlighted boxes. Moreover, as expected, the front pages of letters receive far more attention than back pages.[43] Furthermore, people are more likely to notice actions required if they are placed to the right of the page, above or in line with the headline, and if they are in a different colour.[44]

- **Simplify language where possible**. If the form of communication is through text, consumers are more likely to process the information if the language is simple. The Behavioural Insights Team[45] has tested the efficacy of simplified language in several of its experiments. For example, letters with simplified language were much more effective in convincing doctors to clarify their tax affairs than traditional letters drafted by HMRC. Another example is the US Department of Agriculture (USDA), which, in its efforts to promote healthier

[39] Bhargava, S. and Manoli, D. (2014), 'Why are Benefits Left on the Table? Assessing the Role of Information, Complexity, and Stigma on Take-up with an IRS Field Experiment', V Working Paper, University of Texas at Austin, p. 3.
[40] Cadena X. and Schoar, A. (2011), 'Remembering to pay? Reminders versus financial incentives for loan payments', NBER working paper 170202, May; Karlan, D., Morten, M. and Zinman J. (2012), 'A personal touch: text messaging for loan repayment', NBER Working Paper No. 17952, March.
[41] Karlan, D., McConnell, M., Mullainathan, S. and Zinman J. (2010), 'Getting to the top of mind: how reminders increase saving', NBER Working Paper No. 16205, July.
[42] Altmann, S. and Traxler, C. (2012), 'Nudges at the Dentist', Institute for the Study of Labor (IZA), Discussion Paper No. 6699, July.
[43] For example, in a survey commissioned by the Federal Reserve Board in the USA, 1,028 participants were presented with several credit card disclosures and asked questions about the information contained therein. The study found that fees were less likely to be noticed on the back of a disclosure sheet than on the front of the sheet. See Macro International Inc. (2008), 'Design and testing of Effective Truth in Lending Disclosures', prepared for the Board of Governors of the Federal Reserve System, 15 December, pp. ii–iv.
[44] Cabinet Office and Behavioural Insights Team (2012), 'Applying behavioural insights to reduce fraud, error and debt', February.
[45] See Cabinet Office and Behavioural Insights Team (2012), 'Applying behavioural insights to reduce fraud, error and debt', February.

eating, uses **simple, short messages** such as ‘Make half your plate fruit and vegetables’.[46]

- **Present images along with text**. Images can be a useful tool to help consumers understand some of the key attributes of the product. Imagery not only has the ability to capture consumers’ attention, as discussed in section 3.2, but can also aid their comprehension and memory.[47]

  The most common example of the use of images is that of anti-smoking campaigns, which display graphic images along with warning text. In addition, the Behavioural Insights Team conducted an experiment whereby drivers who had not paid their car tax were sent a letter along with a photo of their unlicensed car captured by a DVLA camera. The addition of the photo increased relicensing rates from 22% to 33%.[48]

  The use of images to convey messages has also been recognised as an important tool by some financial regulators. For example, the Dutch Financial regulator (AFM) requires that product-specific information is summarised in a leaflet, which contains both text and images that show the size of the risk (see section 4.1 for a discussion on risk).

- **Effectiveness of format depends on communication channel**. Depending on the communication channel used by a consumer (e.g. SMS, on-screen, paper, verbal), different elements will be appropriate for inclusion in disclosure, even for the same product. On-screen forms of disclosure have additional dimensions to paper or verbal disclosures: hyperlinks, pop-ups and buttons can be used on-screen but not elsewhere.

  Furthermore, there are different aspects to how information can be displayed prominently for different mediums. A study on web-based financial privacy notices found that many consumers ignored introductory text,[49] in contrast to paper disclosures where the front page is typically a location on which consumers focus.[50] Also, using a vertical layout on-screen, analogous to the layout of paper disclosure, resulted in participants skimming through information and therefore not engaging with the information therein.[51] Even within on-screen disclosure, it is important to keep in mind that these disclosures can be viewed via mobile phones or desktop devices—owing to the differences in screen size and capacity between the two, disclosure formatting for these electronic devices may need to be a little different.[52]

  Verbal disclosure has different dimensions to paper disclosure—for example, cadence, speed of speech, and timing of disclosure message.[53] Generally, verbal disclosure should be made in a way that does not make it less

[46] See United States Department of Agriculture website (http://www.choosemyplate.gov/food-groups/downloads/MyPlate/SelectedMessages.pdf).
[47] Cabinet Office and Behavioural Insights Team (2012), ‘Applying behavioural insights to reduce fraud, error and debt’, February.
[48] Cabinet Office and Behavioural Insights Team (2012), ‘Behavioural insights and public policy’, presentation by David Halpern (http://www.bristol.ac.uk/cmpo/events/2012/policy/halpern.ppt).
[49] Kleimann Communication Group (2009), ‘Web-based Financial Privacy Notice Final Summary Findings Report’, Federal Trade Commission, October, p. 12.
[50] Cabinet Office and Behavioural Insights Team (2012), ‘Applying behavioural insights to reduce fraud, error and debt’, February.
[51] Kleimann Communication Group (2009), ‘Web-based Financial Privacy Notice Final Summary Findings Report’, Federal Trade Commission, October, p. C-2.
[52] Federal Trade Commission (2013), ‘.com Disclosures’, March, p. 18.
[53] This is also true of online audio disclosure. See, for example, Federal Trade Commission (2013), ‘.com Disclosures – How to Make Effective Disclosures in Digital Advertising’, March, p. 20.

relevant—or less understandable—than the surrounding audio messages.[54] However, there is very limited testing of verbal disclosure on consumer understanding and behaviour.

Finally, in addition to the standard forms of communicating disclosure, various financial services product providers currently provide information on their products using short video clips or cartoons.[55]

[54] Federal Trade Commission (2011), 'Complying with the Telemarketing Sales Rule', February (http://www.business.ftc.gov/documents/bus27-complying-telemarketing-sales-rule, accessed 13 May 2014).
[55] See for example Lloyds' guide to credit cards: http://www.lloydsbank.com/help-guidance/product-guides/credit-cards/credit-card-guide.asp (accessed 12 May 2014).

4 Literature review: themes specific to financial services

Various financial services products have attributes that make ‘effective’ disclosure of their features particularly challenging. ‘Effective’ in this case means that the disclosure: (i) engages consumers; (ii) helps them understand to the product; and, consequently, (iii) assists them to make a sound decision. Attributes that are obstacles to effective disclosure include the following.

- **Information-heavy and complex—**as described in section 3.1, the complexity of some financial services products, combined with the limited attention and cognitive ability of some consumers, creates a role for summary disclosure to allow consumers to make appropriate consumption decisions, or at least reduce the barriers to doing so.
- **Difficult to engage with—**financial services are non-tangible, usually described in abstract and statistical terms, which can result in sub-optimal attention by consumers. As summarised in section 3.2, different disclosure techniques, such as reminders and eye-catching triggers, can help to address this.
- **Uncertain returns and costs—**some types of financial products involve money spent now in return for prospective gains in the future, with some element of risk. This, combined with behavioural biases can make financial products difficult to assess even if accurately disclosed, and the perceived value (or cost) of a product may be influenced by the framing of information, the presentation and format, or whether someone has experienced a related event recently. Section 4.1 summarises the findings from the academic literature in relation to the disclosure of risk.
- **Multiple prices and price points—**partly due to their complexity, financial services products often involve multiple charges at the time of purchase and throughout the product life-cycle. For example, when choosing between different mortgage offers, in addition to the interest rate on the mortgage, borrowers may need to consider survey fees, adviser fees, and exit fees. Section 4.2 considers how the way in which these fees are disclosed can affect consumer behaviour.
- **Percentages and compounding—**a commonly used number format in financial services products is the percentage. It is used to present the fees for fund management, to measure the performance of a fund, to calculate the cost of credit for mortgages or to measure the claims ratio of insurance products, among many other uses. Furthermore, in many cases, the overall return and/or cost of a financial services product depends on the compounding of regular percentage amounts, adding more complexity to the consumer’s decision. Section 4.3 summarises the findings from the literature in relation to these topics.
- **Consumer-specific value (and/or cost)—**the value (and/or cost) of many financial services products depends on how the consumer uses the product, and while a product may be suitable for one consumer, it may not meet the needs of another effectively. This makes it difficult to have uniform disclosure for all consumers, a topic that is addressed in section 4.4.
- **Product Usage Disclosure—**the total cost and benefit of a particular product depends both on the product attributes and costs, as well as the overall usage of the product. Disclosure has a role in reducing the misperception

both in terms of the product attributes and of the future usage of the product. Much of the regulatory efforts on disclosure so far have focused on disclosure of product attributes. However, disclosure mandates can be more effective if they target product use disclosure as well. Recent policies and initiatives to disclose product usage information are disclosed in section 0.

4.1 Risk and return

Many financial services products involve money spent now in return for prospective gains in the future, with some element of risk. This characteristic, combined with behavioural biases, may cause people to assess the risk of certain products incorrectly, even if it is accurately disclosed. For example, consumers may assess the risk associated with a product differently according to how the information is framed and presented, or whether they have a personal experience that is relevant to the risk involved. The remainder of this section summarises the findings from the literature on the following two (overlapping) themes:

- **providing information on past performance** (section 4.1.1);
- **framing of information**: including the ways in which consumers' assessment of risk is affected by the framing of information and how categorical labels and images can assist with risk assessment (section 4.1.2);

The literature on the framing of prices is considered in section 4.2.

4.1.1 Disclosing past performance

People's assessment of risk may sometimes be influenced by information that seems intuitively useful but is actually unrelated for the assessment of risk and future return of a particular asset. For example, when deciding in which funds to invest for their retirement savings, many consumers tend to place emphasis on funds' prior performance, even though this information is not a reliable guide for future returns.[56]

A field experiment study[57] found that the **presentation of past performance information has a significant impact on consumers' perceived risk and return of equity funds, but not for fixed interest funds**. In particular, when equity fund performance is expressed as a percentage annual yield (as opposed to an index of fund value),[58] consumers' risk perception is heightened and they become less willing to choose an equity-based fund.

In response to these concerns, in 2004, the Financial Services Authority (FSA) introduced rules requiring that, should past performance be used in advertisements, the information must be accompanied by standardised data showing discrete annual percentage returns for the previous five years. Moreover, past performance information must be qualified with a statement that past performance should not be used as an indication of future returns.[59]

[56] See Kozup, J., Howlett, E. and Pagano, M. (2008), 'The effects of summary information on consumer perceptions of mutual fund characteristics', *Journal of Consumer Affairs*, **42**:1, pp. 37–59.
[57] Diacon, S. and Hasseldine, J. (2007), 'Framing effects and risk perception: The effect of prior performance presentation format on investment fund choice', *Journal of Economic Psychology*, **28**:1, pp. 31–52.
[58] For example, the authors used a FTSE tracker fund and presented the information in two different ways. The first was a line graph which mapped the index's performance from 2000–04, with the year 2000 being indexed at 100. The second chart was a bar graph covering the same fund over the same period, reporting annual percentage yields of the fund on a quarterly basis.
[59] Financial Services Authority (2007), 'Conduct of Business Sourcebook', para. 4.6.2 R.

In 2007, the Financial Industry Regulatory Authority (FINRA), which is the mutual fund industry's self-regulatory body in the USA, introduced regulations requiring that **cost information be reported in a highly salient manner when past performance information is also present**. One study conducted a laboratory experiment that examined whether consumers actually use the additional information.[60] The authors found that despite the presence of expense information, consumers persisted in relying on information on past performance when forming mutual fund preference.

Another regulatory response is to restrict **past performance information**. For example, a group of economists called the Squam Lake Working Group on Financial Regulation recommended that the Securities and Exchange Commission (SEC) prohibit the inclusion of past returns in the standardised disclosure label for retirement savings products.[61] However, given that many consumers consider the disclosure of past performance to be useful, some researchers have warned that any attempt to withhold that information might be deemed as suspicious.[62]

4.1.2 Framing of information

Findings in the literature show that people's choice of risky assets may be influenced by information framing. For example, in an experiment with Australian retirement savers, when participants were presented with information that emphasised a fund's losses, rather than the whole range its possible returns, consumers tended to make more conservative choices.[63] **When interpreting the range of returns, consumers may not fully acknowledge that upside risk can be followed by downside risk and vice versa**.

The same study also looked at how the presentation format for a fund can have an impact on people's risk perceptions and investment choices. In the same experiment, participants were asked to choose between a bank deposit account, a growth account and an account equally divided between a bank and a growth account (labelled '50:50' account). The authors then presented nine different presentation formats to analyse the participants' responses to presentation changes.[64] They found that **less numerate consumers were more likely to change their choice when the presentation format changed**, even if the actual risk of the asset remained the same. Moreover, they found that the graphical format was associated with a higher probability of choosing the more risky options—the '50:50' and growth accounts—compared with textual presentations that conveyed the same information.

The assessment of risk for a particular event can also depend on whether the event is readily available in one's mind. **People often overestimate the likelihood of outcomes that are particularly memorable, highly emotional or have happened recently**.[65] If an event is cognitively 'available' people may

[60] Pontari, B.A., Stanaland, A.J. and Smythe, T. (2009), 'Regulating Information Disclosure in Mutual Fund Advertising in the United States: Will Consumers Utilize Cost Information?', *Journal of Consumer Policy*, **32**:4, pp. 333–51.
[61] Squam Lake Working Group on Financial Regulation (2009), 'Regulation of Retirement Saving', July.
[62] Diacon, S. and Hasseldine, J. (2007), 'Framing effects and risk perception: The effect of prior performance presentation format on investment fund choice', *Journal of Economic Psychology*, **28**:1, pp. 31–52
[63] Bateman, H., Eckert, C., Geweke, J., Louviere, J., Satchell, S. and Thorp, S. (2011), 'Financial competence, risk presentation and retirement portfolio preferences', UNSW Australian School of Business Research Paper No. 2011ACTL03.
[64] The formats are based on standard prospectuses and disclosure information drawn from prospectuses of the financial services industries in Australia, Europe and the USA.
[65] Chuah, S.H. and Devlin, J. (2011), 'Behavioural economics and financial services marketing: a review', *International Journal of Bank Marketing*, **29**:6, pp. 456–69.

overestimate the risk and vice versa.[66] For example, it has been found that insurance purchases increase immediately after disasters such as floods and earthquakes, and then gradually decline when memories fade.[67]

Furthermore, **people tend to be over-optimistic**. For example, many people believe that they are less likely than others to suffer from various misfortunes, including automobile accidents and adverse health outcomes.[68]

One way to assist consumers to better assess risk is to use categorical labels, such as stars or letter-grades, rather than a continuous scale. According to the academic literature, **categorical labels may lead to better comprehension, a faster grasp of label information, and greater ease of use**.[69] An area where categorical labels have been successful is the energy sector, as part of policy efforts to promote energy efficiency. [70] In addition, in a field experiment with food labelling,[71] it was found that displaying quantitative information in a categorical format (e.g. low fat rather that 5 grams of fat per serving) has a significant positive impact on consumer behaviour.

However, when facing a list of options, consumers often have a tendency to choose the middle option, a phenomenon known as a compromise effect. This is also important when a comparison is made between products along some dimension that does not have a clear ranking for consumers—for example, the percentage equity in a portfolio. In particular when there are a large number of options to choose from, the **ordering of options may influence consumer decisions**.

Furthermore, **visual images for high risk may help consumers to understand the extent of the risk**. For example, the Dutch financial regulator (AFM) requires that information for each fund is summarised in a leaflet, containing both text and images which show the degree of the risk and scenario-based presentation of financial implications. An example of such a leaflet is shown in Box 4.1.

A study commissioned by the Dutch Ministry of Finance analysed the extent to which information leaflets inform consumers about the risks, costs and financial implications of financial products, and facilitate a comparison of financial products across suppliers.[72] It found that consumers recognised the value of information leaflets (informative and facilitating product comparison) and that familiarity with information leaflets had increased, but also that explanations of risk and calculations were not always understood.

Similarly, EIOPA recommends that pension providers include a graphical or tabular representation of pension payouts in monetary terms, given a certain level of contributions and different levels of risk, as shown in Figure 4.1.

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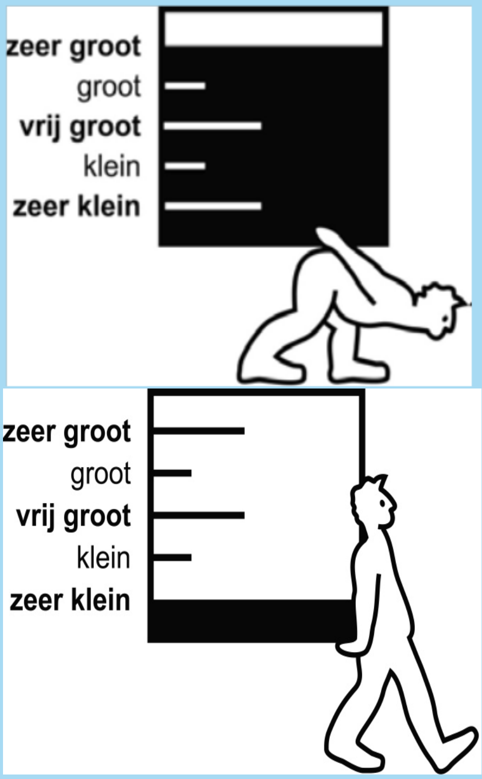
[66] Sunstein, C.R. (2013), *Simpler: the future of government*, Simon and Schuster.
[67] Chuah, S.H. and Devlin, J. (2011), 'Behavioural economics and financial services marketing: a review', *International Journal of Bank Marketing*, **29**:6, pp. 456–69.
[68] Sunstein, C.R. (2013), *Simpler: the future of government*, Simon and Schuster.
[69] Loewenstein, G. and Sunstein, C.R. and Golman, R. (2013), 'Disclosure: Psychology Changes Everything', Harvard Public Law Working Paper No. 13-30.
[70] Thorne, J. and Egan, C. (2002), 'An evaluation of the Federal Trade Commission's EnergyGuide appliance label: Final report and recommendations', American Council for an Energy-Efficient Economy Research Report A021, August.
[71] Kiesel, K. and Villas-Boas, S.B. (2013), 'Can information costs affect consumer choice? Nutritional labels in a supermarket experiment', *International Journal of Industrial Organization*, **31**:2, pp. 153–63.
[72] TNS NIPO (2009), 'De effectiviteit van de Financiële Bijsluiter: resultaten van onderzoek onder consumenten', March.

Box 4.1 The use of risk indicators and scenario-based approach to potential returns

Use of risk indicators

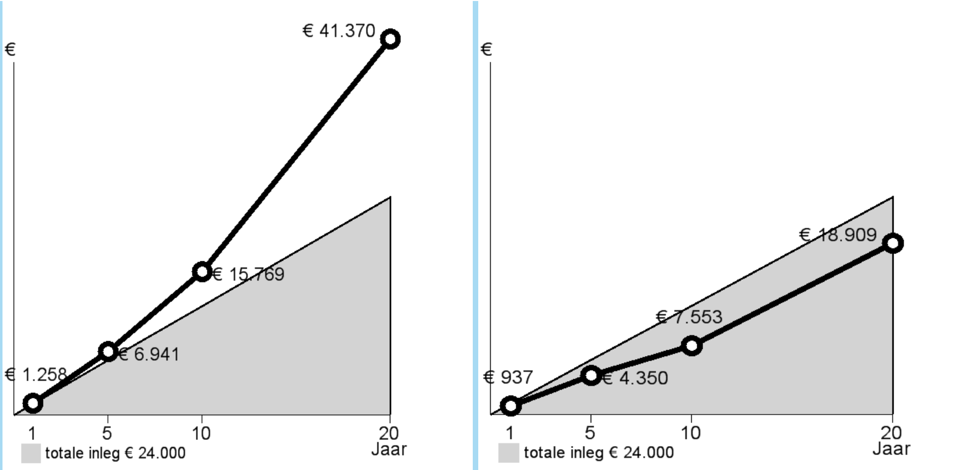
Information leaflets in the Netherlands illustrate financial risks for investment products using the figure of a man carrying a box, with the burden of the box representing a product's riskiness. The heavier the box, and the more the man bends under this burden, the greater a product's risk.



Source: High-risk figure taken from the *ABN AMRO's Meegroeihypotheek's FB*. Low-risk figure taken from Aegon's Lijfrente Uitkeren FB. Both information leaflets were obtained from the AFM's website in April 2014.

Scenario-based presentation of financial implications

The graphical presentation of financial implications, taking the form of returns being presented in various scenarios (historical, optimistic and pessimistic), aims to increase consumer awareness of financial implications, and to aid consumers in calculating products' financial implications.

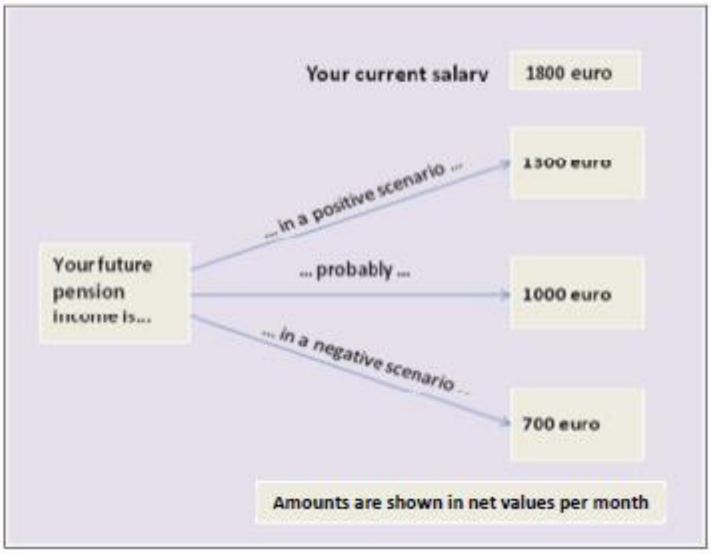


Source: Figures, reflecting the historical and pessimistic scenarios, concerning Rabobank's *ToekomstSparen/Beleggen* FB, were obtained from the AFM's register of information leaflets in April 2014.

The AFM obliges providers of credit, when advertising their products, to warn consumers of the risk of taking credit by means of a figure representing the risk of credit as a block tied to a person's leg (translation: 'Beware! Borrowing money costs money').

Source:http://www.afm.nl/nl/professionals/regelgeving/informatieverstrekking/kredietwaarschuwing.aspx.

Figure 4.1 Representation of risk scenarios for pension scheme



Source: European Insurance and Occupational Pensions Authority (2013), 'Good practices on information provision for DC schemes', Report, January, p. 55.

4.2 Price framing

Building on the material from section 4.1, this section considers the impact of the way in which prices are disclosed.

- Section 4.2.1 summarises the findings in relation to fees and charges at the time of purchase, including, for example, the impact of partitioned pricing;
- Section 4.2.2 summarises the findings in relation to fees and charges incurred after purchase, including, for example, the impact of reminders about potential additional fees or changes in fee rates.

4.2.1 Fees and charges at the time of purchase

Financial services products often involve multiple prices and charges that are incurred at the time of purchase. The existence of multiple charges may confuse consumers and complicate the comparison across competing products. For certain products, the existence of multiple prices is a result of the market structure:

- there may be multiple agents involved in the provision of a product—for example, when investing in a fund, consumers have to pay separate charges such as a fund management fee, adviser fee and platform fee;
- consumers may be purchasing auxiliary products (for example, insurance add-ons) that add to the main price;
- the cost structure of the industry may require a two-part tariff pricing—for example, a mortgage provider may charge a fixed administrative fee that is uniform across customers and an interest rate that depends on the client's riskiness.

However, in some cases, firms may exploit people's tendency to focus on headline prices, and engage in pricing tactics such as partitioned pricing. Partitioned pricing, or 'drip' pricing, refers to the practice of advertising a product price and adding extra charges during the purchasing process. In a 2010 study, the OFT concluded that partitioned or drip pricing was the form of pricing that is most likely to mislead consumers.[73] In these cases, the most appropriate regulatory action is to require retailers to include all charges in the headline price, as the OFT did with the airline sector.[74]

One regulatory response would be **to have one price containing all fees and charges**. A descriptive study of mortgages in the USA found that households pay lower mortgage fees when all fees are rolled into the interest rate, simplifying the task of cost comparison.[75]

4.2.2 Fees and charges incurred after the purchase

Financial services products often involve charges that may be incurred in the future. Consumers' inattention at the time of purchase, as well as over-optimism, may cause them to ignore these charges. For example, some people may allow

[73] Office of Fair Trading (2010), 'Advertising of Prices', December.
[74] Office of Fair Trading (2012), 'Airlines to scrap debit card surcharges following OFT enforcement action', press release, 5 July (http://www.oft.gov.uk/news-and-updates/press/2012/58-12#.U39E8SiHLRY, accessed 20 May 2014).
[75] Woodward, S.E. and Hall, R.E. (2010), 'Consumer confusion in the mortgage market: Evidence of less than a perfectly transparent and competitive market', *The American Economic Review: Papers and Proceedings*, **100**, pp. 511–15.

their current account balances to go negative and incur high overdraft charges, despite having enough funds in other accounts to cover the negative balance. In a field experiment where consumers were randomly assigned to receive an overdraft-related survey,[76] it was found that when consumers are interviewed about overdraft charges, they are less likely to incur them the next month.

Furthermore, consumers often fail to pay attention to charges that may change in the future. For example, one study found that borrowers with adjustable-rate mortgages are likely to either underestimate how much they owe or not know by how much their interest rates could change from year to year.[77] Also, many consumers are attracted by high 'teaser rates' for savings accounts offered by banks, and then fail to switch to competitors when those rates fall.

Moreover, in a descriptive study of credit card holders in the UK, it was found that the presence of the minimum required payment information on the credit card bill leads consumers to make lower monthly repayments than if the information is not present.[78] This is because minimum repayments act as psychological anchors. However, although presenting minimum required payment information has a negative impact on repayment decisions, increasing **the minimum required level has a positive effect on repayment** for most consumers. Using experimental laboratory and field data from the USA and the UK, one study found that increasing minimum repayment levels has a positive impact on repayment levels.[79]

An alternative strategy may be to **disclose the relevant charges at the point at which they may be incurred**. For example, several banks in the UK (for example, RBS, Barclays, Halifax) allow clients to set up mobile phone text alerts for when they are about to have a negative balance. Also, as part of the recent regulations on roaming charges in the European Union, mobile providers are required to send a text message with the relevant charges when the user has crossed borders. Moreover, the provider must send a text message when data-roaming charges have reached €50 and the consent of the user is needed before more data services are provided.[80] Certain mobile phone providers in the UK (for example, giffgaff) have a screen message following each call, which tells the consumer the duration of the call and the remaining balance.

Summary disclosure at the point of sale may therefore not be sufficient to ensure that consumers are cognisant of the charges they may incur. In some cases, regulators have decided to regulate certain fees. For example, the CARD Act in the USA placed limits on credit card fees such as overlimit and late fees. One study, which undertook an econometrics analysis, found that the policy reduced overall borrowing costs to consumers by an annualised 2.8% of average daily balances, with a decline of more than 10% for consumers with the lowest credit scores.[81]

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[76] Stango, V. and Zinman, J. (2011), 'Limited and varying consumer attention: Evidence from shocks to the salience of bank overdraft fees', NBER Working Paper No. w17028.

[77] Bucks, B. and Pence, K. (2008), 'Do borrowers know their mortgage terms?', *Journal of Urban Economics*, **64**:2, pp. 218–33.

[78] Stewart, N. (2009). 'The cost of anchoring on credit-card minimum repayments', *Psychological Science*, **20**:1, pp. 39–41.

[79] Navarro-Martinez, D., Salisbury, L.C., Lemon, K.N., Stewart, N., Matthews, W.J., Harris, A.J. (2011), 'Minimum required payment and supplemental information disclosure effects on consumer debt repayment decisions', *Journal of Marketing Research*, **48**:SPL, pp. S60–S77.

[80] See European Commission website (http://ec.europa.eu/information_society/activities/roaming/regulation/archives/current_rules/index_en.htm, accessed 16 April 2014).

[81] A difference-in-difference methodology was applied. See Agarwal, S., Chomsisengphet, S., Mahoney, N. and Stroebel, J. (2013), 'Regulating Consumer Financial Products: Evidence from Credit Cards', NBER Working Paper No. 19484, April.

Figure 4.2 Example of mandated disclosure under CARD Act

New balance	$3,000.00
Minimum payment due	$90.00
Payment due date	4/20/12

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay a $35 late fee and your APRs may be increased up to the Penalty APR of 28.99%.

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

If you make no additional charges using this card and each month you pay. . .	You will pay off the balance shown on this statement in about. . .	And you will end up paying an estimated total of. . .
Only the minimum payment	11 years	$4,745
$103	3 years	$3,712 (Savings = $1,033)

Source: Federal Reserve Board (2010), 'New Credit Card Rules Effective Feb.22' (http://www.federalreserve.gov/consumerinfo/wyntk_creditcardrules.htm).

4.3 Challenges in the use of percentages

One of the most commonly used number formats in financial services products is the percentage. It is used to calculate fees for fund managers, to measure the performance of a fund, to calculate the cost of credit for a mortgage, or to measure the claims ratio of insurance products, among many other uses. However, despite its ubiquity, the percentage is not universally understood by consumers. Furthermore, in many cases, the overall return and/or cost of a financial services product depends on the compounding of regular percentage amounts, potentially adding more complexity to the consumer's decision.[82]

This section summarises the findings from the literature in relation to percentages (section 4.3.1), and then considers the issue of compounding (section 4.3.2).

4.3.1 Disclosure of percentages

Many people are unable to calculate a simple percentage calculation correctly.[83] For example, in a recent consumer survey by the Competition and Markets

[82] As a result of their perceived complexity, financial services transactions often involve an element of advice, which may not be independent. Disclosure in these cases involves informing the consumer of the potential conflict of interest.

[83] For example, a survey of retail investors in Australia found that participants found percentages difficult to process. See Ageing Agendas (2000), 'Summary of the Outcomes of Consumer Testing of the ASFA Super Choice Key Features Statements', report prepared for the Association of Superannuation Funds of Australia Ltd, December. As found in: Ramsay, I. (2002), 'Disclosure of fees and charges in managed investments', Australian Securities and Investments Commission, 25 September, pp. 43–45.

Authority (CMA),[84] it was found that only 59% of respondents answered correctly a simple interest rate calculation.[85].

The provision of information in absolute rather than percentage terms can help consumers to engage with and understand financial services products. A study based on a laboratory experiment in Mexico examined how the simplification of management fees affected people's choice of investment funds.[86] They found that financially illiterate respondents paid much more attention to fees when these were presented in pesos rather than percentages and were more responsive to price changes.[87]

As part of its 'Know Before You Owe' initiative, the US CFPB requires that mortgage providers provide all costs and payments in dollars, in addition to the interest rate.[88] An example of a disclosure document is shown in the figure below.

[60] The survey was initiated by the Competition Commission in the context of the payday lending investigation. TNS BMRB (2014), 'Research into the payday lending market – Final Report', prepared for the Competition Commission. The respondents were payday loan borrowers. Aware that many borrowers do not understand percentages, payday lenders typically present interest cost in absolute terms.

[85] The question asked: 'You have taken out a loan for £500 and the interest rate you are charged is 10% per month. There are no other fees. At this interest how much money would you owe in total next month?', Competition Commission (2014), 'Research into the payday lending market', Report, January (https://assets.digital.cabinet-office.gov.uk/media/5329df8aed915d0e5d000339/140131_payday_lending_tns_survey_report_.pdf).

[86] Hastings, J.S. and Tejeda-Ashton, L. (2008), 'Financial literacy, information, and demand elasticity: Survey and experimental evidence from Mexico', NBER Working Paper No.14538.

[87] Over all respondents, presenting fees in pesos instead of in percentages generated a 25–55% increase in demand elasticity for fund choices in the experiment.

[88] Consumer Financial Protection Bureau, 'Know Before You Owe' (http://www.consumerfinance.gov/knowbeforeyouowe, accessed 12 May 2014).

Figure 4.3 CFPB Disclosure for mortgage loans

ASPEN BANK

4321 Random Boulevard • Somecity, ST 12340

Save this Loan Estimate to compare with your Closing Disclosure.

Loan Estimate

DATE ISSUED	2/15/2013
APPLICANTS	Michael Jones and Mary Stone 123 Anywhere Street Anytown, ST 12345
PROPERTY	456 Somewhere Avenue Anytown, ST 12345
SALE PRICE	$180,000

LOAN TERM	30 years
PURPOSE	Purchase
PRODUCT	Fixed Rate
LOAN TYPE	☒ Conventional ☐ FHA ☐ VA ☐ ___________
LOAN ID #	123456789
RATE LOCK	☐ NO ☒ YES, until 4/16/2013 at 5:00 p.m. EDT *Before closing, your interest rate, points, and lender credits can change unless you lock the interest rate. All other estimated closing costs expire on **3/4/2013** at 5:00 p.m. EDT*

Loan Terms		Can this amount increase after closing?
Loan Amount	$162,000	**NO**
Interest Rate	3.875%	**NO**
Monthly Principal & Interest *See Projected Payments below for your Estimated Total Monthly Payment*	$761.78	**NO**
		Does the loan have these features?
Prepayment Penalty		**YES** • **As high as $3,240** if you pay off the loan during the first 2 years
Balloon Payment		**NO**

Projected Payments		
Payment Calculation	**Years 1-7**	**Years 8-30**
Principal & Interest	$761.78	$761.78
Mortgage Insurance	+ 82	+ —
Estimated Escrow *Amount can increase over time*	+ 206	+ 206
Estimated Total Monthly Payment	$1,050	$968

Estimated Taxes, Insurance & Assessments *Amount can increase over time*	$206 a month	**This estimate includes** ☒ Property Taxes ☒ Homeowner's Insurance ☐ Other: *See Section G on page 2 for escrowed property costs. You must pay for other property costs separately.*	**In escrow?** **YES** **YES**

Costs at Closing		
Estimated Closing Costs	$8,054	Includes $5,672 in Loan Costs + $2,382 in Other Costs – $0 in Lender Credits. *See page 2 for details.*
Estimated Cash to Close	$16,054	Includes Closing Costs. *See Calculating Cash to Close on page 2 for details.*

Visit **www.consumerfinance.gov/mortgage-estimate** for general information and tools.

LOAN ESTIMATE PAGE 1 OF 3 • LOAN ID # 123456789

Source: Consumer Financial Protection Bureau (2014), 'Disclosure comparison' (http://www.consumerfinance.gov/knowbeforeyouowe/compare/, accessed 1 May 2014).

Similarly, 'various costs, fees, charges, expenses, benefits and interests' must be stated in dollar terms on investment product disclosure, according to guidance from the Australian Securities & Investments Commission (ASIC).[89]

In some markets, it is standard practice to present costs in absolute terms. For example, payday lenders typically present the interest cost in absolute terms (for example, £30 for every £100 pounds for a period of one month).

[89] Australian Securities and Investments Commission (2008), 'Dollar Disclosure', Regulatory Guide 182, June, p. 4.

4.3.2 Understanding of non-linearities and compounding

Consumers **may fail to take into account non-linearity in decisions and, consequently, may make mistakes in calculating compound interest**. For example, respondents to the CMA's aforementioned consumer survey were asked a question that required the calculation of compound interest, which the large majority failed to answer correctly.[90]

A notable example is failure to appreciate that a car's fuel economy is not linearly related to its most common metric: miles per gallon (mpg).[91] A difference of 5mpg has a much larger impact on cost when it is the difference between 5mpg and 10mpg than when it is the difference between 45mpg and 50mpg. Recognising the potentially misleading nature of mpg, the US Department of Transportation and the Environmental Protection Agency (EPA) adopted an alternative label that includes the car's fuel savings compared with an average car for a period of five years.

In the same vein, one study conducted a field experiment at payday stores in the USA, where, in addition to the APR, they provided information on the accumulated fees (in dollars) for having a $300 payday loan outstanding for two weeks, one month, two months, or three months and compared that to other products.[92] The information provided is shown in Figure 4.4 below. By explicitly stating how fees add up over time, the information addressed the possibility that payday borrowers were failing to add up the costs they incurred in each pay cycle. They found that disclosing this information to consumers led to a reduction in borrowing rates by about 10%.

The Credit CARD Act 2009 requires that lenders include on each bill an explicit calculation of the time and cost of repaying the balance through minimum monthly repayments, and a similar calculation for the cost of repaying over 36 months. The disclosure requirement was found to have increased consumer repayments, but decreased somewhat the percentage of people who paid the amount in full (see Figure 4.2 for an example).[93]

Similarly, the UK Cards Association has launched an initiative to help consumers understand the costs of using a credit card. Consumers can go onto the UK Cards website and input their balance and how much they plan to repay each month, and then receive information on how much and it will cost them to repay the full balance.[94]

In a field experiment, a randomised subset of newly hired workers at a large financial institution received a flyer containing information about the employer's 401(k) plan and the value of contributions compounding over a career.[95] The information highlighted the long-term value of small but continuous contributions to the savings plan. In addition, the flyer contained a message encouraging employees to take advantage of the employer match using the common catchphrase, 'Don't Leave Money on the Table'. The authors found that young

[90] TNS BMRB (2014), 'Research into the payday lending market – Final Report', prepared for the Competition Commission.
[91] Larrick, R.P. and Soll, J.B. (2008), 'The MPG illusion', *Science*, **320**:5883.
[92] Bertrand, M. and Morse, A. (2011), 'Information disclosure, cognitive biases, and payday borrowing', *The Journal of Finance*, **66**:6, pp. 1865–93. The authors also provided the corresponding costs and APRs of products that people are familiar with paying—for example, car loan, credit card and subprime mortgage.
[93] Keys, B.J. and Wang, J. (2014), 'Perverse Nudges: Minimum Payments and Debt Paydown in Consumer Credit Cards', working paper.
[94] See UK Cards Association website (http://www.cardcosts.org.uk, accessed 22 May 2014).
[95] Clark, R.L., Maki, J.A. and Morrill, M.S. (2014), 'Can Simple Informational Nudges Increase Employee Participation in a 401 (k) Plan?', *Southern Economic Journal*, **80**:3, pp. 677–701.

employees who received the flyer were significantly more likely to participate in the employer's 401(k) plan.

Figure 4.4 Information provided to payday loan customers

How much it will cost in fees or interest if you borrow $300

PAYDAY LENDER (assuming fee is $15 per $100 loan) If you repay in:		CREDIT CARD (assuming a 20% APR) If you repay in:	
2 weeks	$45	2 weeks	$2.50
1 month	$90	1 month	$5
2 months	$180	2 months	$10
3 months	$270	3 months	$15

Bertrand, M. and Morse, A. (2011), 'Information disclosure, cognitive biases, and payday borrowing', *The Journal of Finance*, **66**:6.

4.4 Product suitability[96]

The value (and/or cost) of many financial services products depends on how the consumer uses the product—while a product may be suitable for one consumer, it may not meet the needs of another. Effective disclosure of the main characteristics of the product can potentially help guide consumers to finding the most suitable product, both during purchase and after.

4.4.1 Framing of product features

People's assessment of product suitability may be influenced by how the product information is framed. A field experiment in the USA tested the hypothesis that reduced levels of annuity demand are due to the fact that people see them as an investment product (with low returns) rather than as an insurance product that ensures consumption.[97] The study found 72% of respondents preferred a life annuity over a savings account when the choice was framed in terms of consumption; only 21% of respondents preferred it when the choice was framed in terms of investment features.

Disclosure should therefore **highlight the proper use for each product**. For example, if a payday loan or overdraft facility is intended as a short-term credit, disclosure should emphasise its merits as a short-term solution, but also the perils of using it as a long-term product.

4.4.2 Provide warnings for inappropriate products

In some cases, warnings could be used to **highlight certain negative aspects of the particular product that may lead to consumer detriment**. For example,

[96] The term 'suitability' is used here in a general sense of a product meeting the needs of a consumer, rather than as defined in FCA regulation in an advised-sales context.

[97] Brown, J.R., Kling, J.R., Mullainathan, S., and Wrobel, M.V. (2008), 'Why Don't People Insure Late-Life Consumption? A Framing Explanation of the Under-Annuitization Puzzle', *American Economic Review*, **98**:2, pp. 304–09. Participants were presented with annuity products and an accompanying text which described different potential scenarios. One set of participants were presented these products in an investment frame, which emphasised the depersonalised return on an account by using words such as 'invest' and 'earnings', describing periods in terms of years, mentioning the value of the initial investment ($100,000 in every case), and alluding to the account value. The group was presented these products in a consumption frame, meaning that they were told how much each product would ultimately allow its purchaser to consume and for how long, using words such as 'spend' and 'payment', describing periods in terms of the purchaser's age, and never alluding to an account or its value.

the FCA will require all payday lenders to carry a warning label that borrowers have to seek debt advice before obtaining the loan. Product usage information

The total cost and benefit of a particular product depends on the product attributes and costs, as well as the overall usage of the product. For example, for credit cards, the interest rate and the penalty fees are costs associated with using the product. However, the total interest paid depends on both the interest rate and the consumer's balance. Furthermore, total penalty charges depend on both the late fees and the frequency of late payment. Consumers who underestimate the interest rate and late fee, as well as those who underestimate how much they will borrow and how often they will pay late, will underestimate the total cost of using the credit card.[98]

Disclosure has a role in reducing the misperception, in terms of both the product attributes and the future usage of the product. Many of the regulatory efforts on disclosure so far have focused on disclosure of product attributes. However, disclosure mandates can be more effective if they target product use disclosure as well. Product use disclosure comes in two main forms: individual-use disclosures and statistical average use disclosures.

4.4.3 Individual use disclosure

A novel regulatory approach has focused on the **disclosure of information on consumers' own use patterns**. Some initiatives based on this idea have begun recently and have been labelled 'MyData' or 'MiData' in the UK.[99]

As part of this effort, Richard Thaler and Cass Sunstein put forward the Record, Evaluate and Compare Alternative Price (RECAP) framework.[100] The framework proposes that firms disclose to each customer their own personal usage information in electronic form. Consumers can then upload their usage information into a comparison website which can tell them the cost of their usage from other providers. A descriptive study examines the application of the RECAP framework in the Italian telecoms industry.[101] Italian law requires that each consumer is entitled, free of charge, to their own usage profile, which consists of data pertaining to the previous bi-monthly bill. In addition, the government in Italy has promoted the establishment of 'approved comparison websites', where the consumer can upload personal usage data to compare the cost charged by other competitors for the same usage pattern. A price comparison website for mobile phone services, called SuperMoney, was approved three years ago and is currently able to process data from over 2,500 different mobile plans, with more than 300,000 customers being registered every month.

Product usage information can also be used by the same provider to recommend contracts that may be more suitable. For example, certain mobile providers in the UK (for example, giffgaff) provide recommendations to their customers on which of the contracts offered would be the most economical based on the customers' usage patterns.

[98] See Bar-Gill, O. (2012), *Seduction by Contract: Law, Economics, and Psychology in Consumer Markets*, Oxford University Press.
[99] For more information on MiData, see Department for Business, Innovation and Skills (2011), 'The midata vision of consumer empowerment', Announcement, 3 November.
[100] Thaler, R. and Sunstein, C. (2008), *Nudge – Improving Decisions About Health, Wealth and Happiness*, New Haven, CT: Yale University Press.
[101] Brodi, E. (2012), 'Product-attribute information' and 'product-use information': Smart disclosure and new policy implications for consumers' protection', working paper.

However, product use disclosure has its limitations. First, product usage may depend on the product attributes—when a consumer changes products, their use of the product would change as well. Second, past usage is only an imperfect prediction of a product's future usage.[102]

4.4.4 Products with no prior usage

For certain products, such as mortgages, there is usually no prior individual usage information. In such cases, comparison websites can collect information directly from the consumer in order to recommend the most suitable product. An example of such a website is the Money Advice Service (MAS),[103] which collects and organises data on all mortgages offered in the UK. Consumers interested in buying a mortgage can go to the MAS webpage and answer a questionnaire specifically designed to discover the most suitable product. Once the survey is completed, the most relevant mortgages are ranked in a comparison table.[104]

[102] Bar-Gill, O. (2012), *Seduction by Contract: Law, Economics, and Psychology in Consumer Markets*, Oxford University Press.
[103] See the Money Advice Service website (https://www.moneyadviceservice.org.uk/, accessed 12 May 2014).
[104] It must be noted that the way in which alternatives and recommendations are presented to consumers may affect their choices. For a discussion, see Dellaert, B.G. and Häubl, G. (2012), 'Searching in choice mode: consumer decision processes in product search with recommendations', *Journal of Marketing Research*, **49**:2, pp. 277–88.

A1 Overview of ways to evaluate product disclosure

There is a spectrum of methods to test the effects of disclosure. They mainly vary in the cost of implementing the testing procedure and in the reliability of the insights. This section provides an overview of some of the main methods.

A1.1 Literature review

A literature review is the cheapest and fastest method, and is usually the starting point of any test of an intervention relating to disclosures. There is a good chance that researchers, firms or regulators have already analysed a similar disclosure regime and have published their results. In most cases, the existing insights will not exactly match the question at hand but can guide the design and analysis of the planned disclosure intervention.

A1.2 Market research techniques

Formulating disclosure can be informed by qualitative interviews, either run individually or as focus groups, similar to how marketing materials and products are examined by market researchers.[105] These types of studies allow gathering information on consumer preferences on what would be helpful in a disclosure document, and what is currently unhelpful or confusing. Because of the qualitative nature of these studies, they may not be very effective in determining the actual effectiveness of a disclosure document, or general preferences across disclosure documents (especially since these types of studies typically do not have many participants); however, they can aid in formulating prototype designs that can be tested further.

Additionally, to measure the impact of disclosure on consumer understanding, certain regulators, such as the FTC, use marketing research techniques such as content analysis and copy tests.[106] Communication copy tests are typically used to gauge consumer interpretation of advertising messages before firms launch marketing campaigns.

A1.3 Laboratory experiments

A1.3.1 Hypothetical choice experiments

Hypothetical choice experiments (for example, consumer surveys, focus groups or psychological lab experiments) confront a sample of consumers with a series of hypothetical questions. The advantage of this method is that participants are asked about the exact intervention of interest, unlike in a literature review. Since surveys are now mostly done online, it is possible to include pictures and text to describe the disclosure in as detailed and life-like a way as possible.[107] Additionally, monetary costs are relatively low and results are gathered quickly, often within a few days. The low cost and short timeframe allows for asking about many different designs in one survey round and for the quick iteration of new designs in response to the feedback gathered in the previous round. The disadvantage of this method is that the effect of any intervention is likely to be estimated with error for several reasons: (i) participants face no consequences

[105] For an example of this, see: Lacko, J.M. and Pappalardo, J.K. (2010), 'The Failure and Promise of Mandated Consumer Mortgage Disclosures: Evidence from Qualitative Interviews and a Controlled Experiment with Mortgage Borrowers', *The American Economic Review*, Papers and Proceedings, **100**, May, pp. 516–21, p. 518.
[106] Pappalardo, J.K. (2012), 'Product Literacy and the Economics of Consumer Protection Policy', *Journal of Consumer Affairs*, **46**:2, pp. 319–32.
[107] Note that it may be important to use the same medium as will be used in the actual planned intervention. See section above for a discussion of the relevance of medium in disclosure.

depending on their answers and are thus likely to overstate any action they think they *should* be doing, like checking their current account balance regularly (due to social desirability or cognitive dissonance);[108] (ii) surveys will often confront the same respondent with different possible designs of disclosure, thus making any difference between disclosure regimes more obvious and thus artificially more powerful; (iii) as participants face no consequences, they are more easily swayed by small influences, like a slightly different wording of a text, that would not have an effect in real-world situations with tangible consequences.

A1.3.2 Choice experiments with consequences

Choice experiments with consequences, like economics lab experiments, differ in that they attach direct consequences to the choices participants make, ideally mirroring the consequences that participants would face in the real-world situation of interest. The consequences could be monetary (perhaps time delayed or with added uncertainty) but can take almost any form, for example an extended time spent doing an unpleasant task, and can also encompass other persons. Experiments in university-run labs usually use undergraduate students as participants. Online platforms like Amazon's Mechanical Turk ('MTurk') are increasingly used as an alternative since they give access to a much broader range of participants, allow for lower payments to participants, and allow for recruiting hundreds of participants in a very short time. The advantage of this method is that, since participants face real consequences, their decisions will be more similar to the decisions they would have made had they encountered the disclosure intervention in their everyday lives. In any type of lab experiment, it is possible to collect detailed data on attention and other immediate behaviours in addition to the substantial outcomes, to help interpret behaviour. For example a Royal Mail study used eye movement tracking software to see how much attention participants paid to various parts of a letter;[109] similarly, some economics lab experiments use mouse-tracking software to identify which elements participants focus on, in which order, and for how long.[110] The disadvantage is the higher cost and longer time needed for conducting such experiments. Experiments conducted on MTurk are generally cheaper but do not have the level of control of offline lab experiments. For example, it is not obvious whether the participant makes decisions by him- or herself, or asks someone else for help.

One key downside of lab experiments in general is that the tested disclosure is divorced from all other disclosures or informational materials that a consumer would typically be exposed to. In other words, a lab-tested disclosure will not be subject to the accumulation problem,[111] or at least be less affected by the accumulation problem, as real-world disclosures might be. Because of this, consumers may generally engage more with disclosure materials in a lab setting: that same level of engagement may not be possible outside the lab. Furthermore, disclosure which is the most effective in a lab setting may actually not be the most effective in the real world, where consumers focus not only on the disclosure for a specific product, but also interact with various other informational materials. Generally, the ranking of disclosures in terms of

[108] Crowne, D.P. and Marlowe, D. (1960), 'A new scale of social desirability independent of psychopathology', *Journal of Consulting Psychology*, **24**:4, p. 349.
[109] Cabinet Office and Behavioural Insights Team (2012), 'Applying behavioural insights to reduce fraud, error and debt', February
[110] Costa-Gomes, M.A. and Crawford, V.P. (2006), 'Cognition and Behavior in Two-Person Guessing Games: An Experimental Study', *The American Economic Review*, **96**:5, pp. 1737–68.
[111] See section 3 for a discussion of the accumulation problem.

effectiveness may vary as the number, importance or effectiveness of other informational materials changes.

A1.4 Field experiments

A1.4.1 Randomised controlled trials (RCTs)

RCTs (also called field experiments or pilots) are time-limited introductions of several disclosure regimes in the actual environment. Participants are real users of financial products and are randomised into different treatments—i.e. different disclosure regimes. The advantage of this method is that the data gathered is much more reliable than any lab experiment or survey. Since the RCT takes place in exactly the situation of interest, no generalisation between different settings is necessary. The affected group of participants, the implied consequences and the decision environment are all identical to the environment of interest. Participants additionally do not know that they are participating in an experiment and thus feel unobserved.[112] If it is possible to also randomise firms into treatments, the effects of disclosure regimes on the supplier of information can be studied. This is important, since disclosure regulation often does not change consumers' behaviour but still influences firms' behaviour.[113] The disadvantage of this approach is the resource cost needed to set up the RCT, to randomly allocate participants to different disclosure regimes, and to collect outcome data. An RCT would also run for a couple of weeks or months. This means that only a few treatments can be compared, and only limited iterations of designs can be done. **RCTs are the source of the most reliable data and thus should always be used before the introduction of a new policy but only after surveys or experiments have narrowed down the range of possible treatments**.

A1.4.2 Staggered introduction

Staggered introduction means that a new disclosure regime is introduced as usual, albeit in a staggered way—i.e. for some groups (for example, regions) sooner than for others. The order of introduction is randomly chosen. This allows for a reliable ex post evaluation of the effects of disclosure. The advantage of this method is also that medium-term effects can be captured that may not be captured in time-limited RCTs. It is also cheaper than a separate RCT. The disadvantage is that usually only one disclosure regime is introduced and tested, and that, if it turns out that the new disclosure regime does not work, it is difficult to repeal it.

Structural estimation is a way to 'super-charge' RCTs and staggered introduction of reforms. RCTs only give reliable insights into the exact environment of the RCT. It is, however, less straightforward to generalise these insights to other settings. Information from well-designed RCTs and staggered introductions can be used to calibrate a computer simulation ('structural estimation'). This simulation can then be used to extrapolate the insights to other, related settings. If the calibration is already considered when designing the RCT, almost no additional data has to be collected. This is thus a very cost-effective way to increase the informational efficiency of an RCT.

[112] For more details, see Behavioural Insights Team's 'Test. Adapt. Learn.' Cabinet Office and Behavioural Insights Team (2012), 'Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials', June.
[113] See, for example, Namba A., Auchincloss, A., Leonberg, B.L. and Wootan, M.G. (2013), 'Exploratory analysis of fast-food chain restaurant menus before and after implementation of local calorie-labeling policies 2005-2011', *Preventing Chronic Disease*, **10**:120224, pp. 16–21.

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