

A behavioural approach to managing money: **Ideas and results from the Financial Capability Lab**

A partnership between the Money Advice Service,
the Behavioural Insights Team & Ipsos MORI

May 2018



THE
BEHAVIOURAL
INSIGHTS TEAM



Ipsos MORI
Social Research Institute

Foreword

Making the most of our money helps us to achieve our goals and build for the future. This is why, in 2015, the Money Advice Service launched the Financial Capability Strategy for the UK designed to improve the ability of millions of people to make the most of their money. The strategy is highly ambitious, with a focus on stimulating fresh thinking and new ideas that can help organisations, and particularly those in the financial services sector, to transform the way they serve and support UK citizens.

Financial capability is a function of an individual's skills, knowledge and mindset and, importantly, the environment in which they make financial decisions. This means that it is vital that we design products and services that draw on our developing understanding of how consumers actually make these decisions and the influence of behavioural biases and broader environmental effects. We believe that a behavioural approach to managing money can make it easier and more attractive for people to save, manage their spending, and choose and use credit responsibly.

The Financial Capability Lab brings together expertise from the Money Advice Service, the Behavioural Insights Team and Ipsos MORI. The Behavioural Insights Team has led the delivery of the programme, bringing experience of successfully applying and testing insights from behavioural science in a range of other contexts. This has been combined with the deep sector-specific knowledge of the Money Advice Service and the qualitative research expertise of Ipsos MORI to generate and rigorously test new ideas for financial capability challenges.

We have been delighted and humbled by the breadth and depth of interest in our work, and are particularly grateful to the many financial capability experts from business, academia, government and charities who helped us to develop the ideas we tested, and that are outlined in this report.

Whilst the lab results show huge potential, the only way we can find out if they really do work is to test the ideas in the field. If the ideas continue to show promise, we can then seek to deploy them at scale and make a real difference across the UK. We can only do that with your help.

We believe that this report contains ideas that could help people make the most of their money, whether they are your customers, employees or the wider population of the UK. Whether you are a financial institution looking to align social impact and commercial goals; a fintech looking to trial a new behaviourally informed interface; or a government agency looking to serve UK citizens more effectively, we hope that this report will interest and inspire you.

Get in touch with us. Our teams are ready to extend our partnership to include you. Together we can develop new and improved financial products and services that are informed by behavioural science, test them to produce rigorous evidence for what works, and roll them out to benefit you, your customers or employees, and the wider UK economy.

Charles Counsell
CEO Money Advice
Service



David Halpern
CEO Behavioural
Insights Team





Contents

1	The ambition of the Financial Capability Lab	6
2	The Financial Capability Lab's approach	9
3	Themes from the Lab	19
	3.1 Smarter defaults to help people save more and repay their debts more quickly	20
	3.2 Improving comprehension through simple, salient and interactive product information	27
	3.3 Timely moments for prompts, offers of help and new products and services	34
	3.4 Designing self-exclusion and commitment devices	38
	3.5 Overcoming taboo and the social aspect of finances	43
	3.6 Rethinking rewards and incentives	47
4	Reflections on the complexity of financial decision-making: backfire effects and ideas that didn't work	49
5	Numeracy and financial decision-making	58
6	What's next for the Lab?	63
	Endnotes	66

1 The ambition of the Financial Capability Lab

The Financial Capability Lab (the Lab) is part of the wider Financial Capability Strategy of the Money Advice Service (MAS),¹ a ten-year plan to deliver a step change in how people in the UK manage their money. Launched in 2015, the strategy highlighted that there was a lack of reliable evidence around the most effective ways to improve people's financial capability. In 2016, MAS created the What Works Fund² to finance robust impact evaluations and build a clear picture of what works and, equally as important, what doesn't.

The fund has taken two complementary approaches. First, a number of evaluations have been funded by MAS to assess some of the many existing financial capability initiatives that focus on people who are financially struggling and provide evidence for which are most effective. The Lab was established to design and rapidly test new solutions informed by behavioural science to help people who are 'financially squeezed'³ to better manage their money. The most promising ideas would then be tested in the field with public and private partners. Finally, ideas that proved successful in initial pilots in the field would be scaled up as actual financial products and services.

Almost one in four adults in the UK are 'financially squeezed'. This description was developed by MAS to help focus attention on a broad segment of the UK population with significant financial commitments but relatively little provision for coping with sudden changes to their financial circumstances or security. These events can include an unexpected bill, being made redundant or unexpected medical costs.⁴ Three quarters of financially squeezed households have average savings of less than £600, whilst the remaining quarter have no savings at all.⁵ The financially squeezed are also less likely to seek financial advice and guidance – on average, the segment did not seek help for the majority of the financial events they experienced in 2016.⁶ Financially squeezed households can also be vulnerable to problems with unsecured debt, as over half use a credit or store card, with a quarter of those who use a card consistently only making minimum repayments on these cards.⁷ This means that the financially squeezed are vulnerable to even small changes to their financial circumstances or security, and many struggle to get out of a cycle of debt. That's why, in 2016, we set up the Lab to generate fresh thinking

informed by behavioural science that will help more people make the most of their money.

The Lab was designed to complement the What Works Fund by developing new ideas based on behavioural science, using the expertise and knowledge of the Behavioural Insights Team (BIT). We rapidly tested these ideas to create a pipeline of projects that we could pilot and test in the field before delivering the most successful at scale. The Lab has:

- **Generated over 240 new ideas** to tackle some of the UK's most common money management challenges. These ideas all use insights from behavioural science and were developed in collaboration with over 90 experts from across academia, government and the financial sector.
- **Rapidly tested 17 of these ideas** with real people who are representative of the financially squeezed. This was done using a mix of traditional qualitative methods (involving 80 participants who took part in discussion groups and interviews) and online randomised controlled trials (involving 10,500 participants) using BIT's experimentation platform, Predictiv.
- **Prioritised ideas to test at scale with partners.** This report highlights the Lab's most promising ideas, which we would like to test in the field with partners from the financial and retail sectors, charities, housing associations and government.

The combined work of the Lab and the wider What Works Fund is the largest programme of research about what works to improve financial capability and money management ever conducted in the UK. This report is a summary of the ideas and results of the Lab. It shares early-stage evidence and our most promising ideas to take forward and test in the field, as well as reflecting on the challenges of improving financial decision-making.

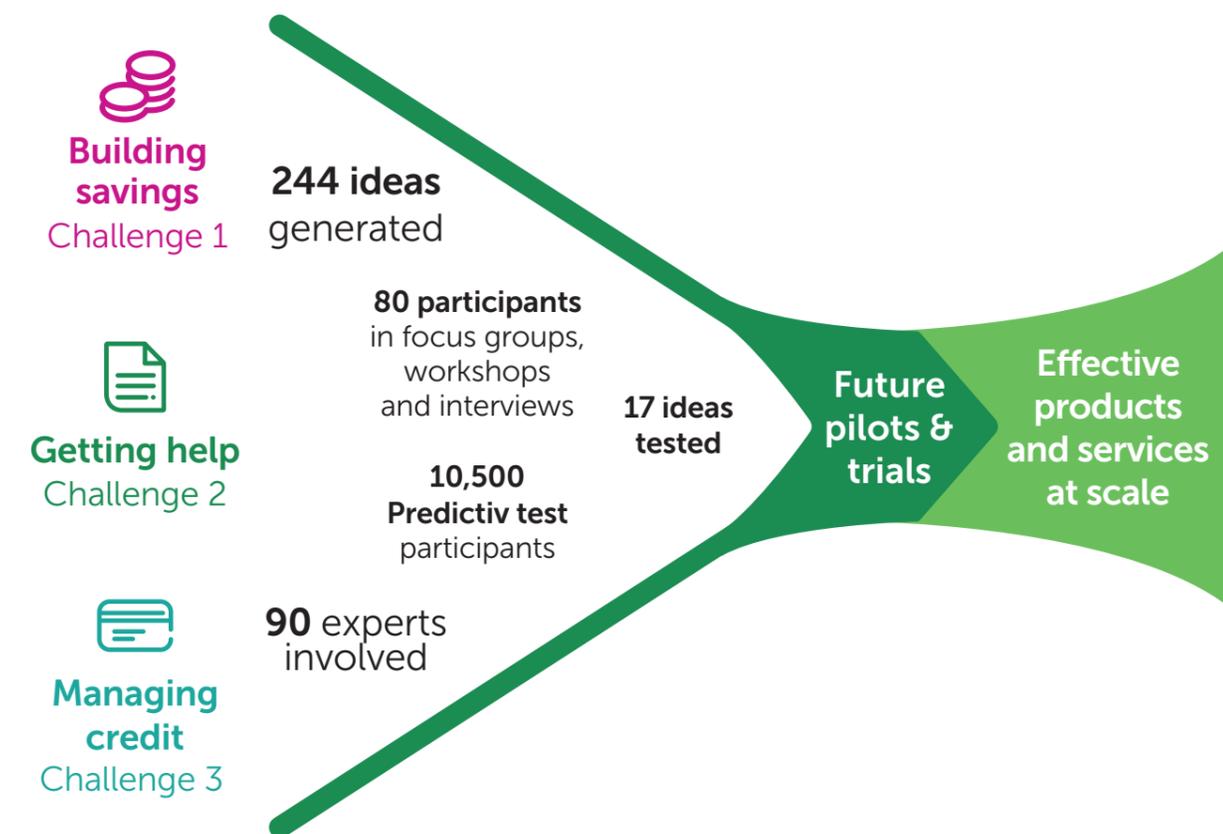
We are now building a coalition of partners. We hope that, in the coming two years, partners will join with us to develop and test the Lab's evidence-based ideas in the real world. Together, we can shape new services and products, with a fresh and more sophisticated understanding of why and how people make financial decisions. We also hope that those readers who do not become direct partners

will be inspired to conduct further research, test behaviourally informed additions to their own products or services, and contribute to the wider work of the UK's financial capability strategy.

The rest of this report sets out:

- the Financial Capability Lab's approach, including the focus of the research and research methods (Section 2);
- themes from the Lab, detailing the most promising ideas organised into six key themes (Section 3);
- reflections on the complexity of financial decision-making, including backfire effects and ideas that didn't work (Section 4);
- results and reflections from testing numeracy alongside the aforementioned ideas (Section 5); and
- next steps for the Lab, and how the most promising ideas might be taken into the field (Section 6).

Overview of the Financial Capability Lab



2 The Financial Capability Lab's approach



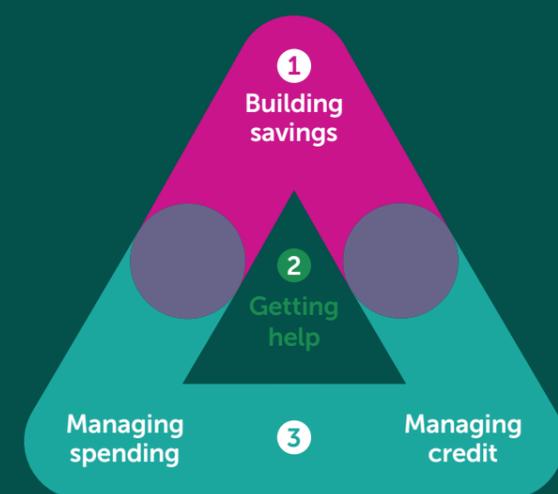
This section briefly sets out the approach of the Lab, including:

- the focus of the research, specifically the policy challenges and target segment; and
- the qualitative and quantitative research methods used in the Lab.

2.1 Focus of the research

2.1.1 The three policy challenges

The Money Advice Service challenged the Lab team to come up with ideas to address three of the most challenging areas of money management:



How can we encourage people to build up a savings buffer to withstand financial shocks?

A good example of the financial shocks people face is that 7 in 10 people face an unexpected bill each year. This is typically between £200 and £400, but it can be much higher, such as £1,341 for the average car repair bill.⁸



A quarter of financially squeezed households have no savings at all, making them especially vulnerable to the impact of these unexpected bills. Of the financially squeezed households that do have money set aside, the average savings amount is less than £600.⁹

How can we encourage people to seek financial advice and guidance?

One in two people in the UK miss out on free help and support. Under half of us are aware of publicly provided, free financial guidance services.¹⁰



In around **6 out of 10** of the financial events experienced by the financially squeezed in 2016, people didn't seek out help and guidance that was available.¹¹

How can we help people to take control of their spending and how they choose, use and repay credit?

One in four of the financially squeezed are vulnerable because of their credit.



This means 3.2 million financially squeezed adults in the UK face excessive interest charges or problem debt as a result of making low repayments.¹²



Across these three policy challenges, the Lab focused on the group of 12.7 million people MAS has identified as part of its financially squeezed segment.¹³ This was based on a market segmentation exercise undertaken by MAS to identify different groups of people in the UK based primarily on their financial resilience. The three segments identified by MAS are 'struggling',



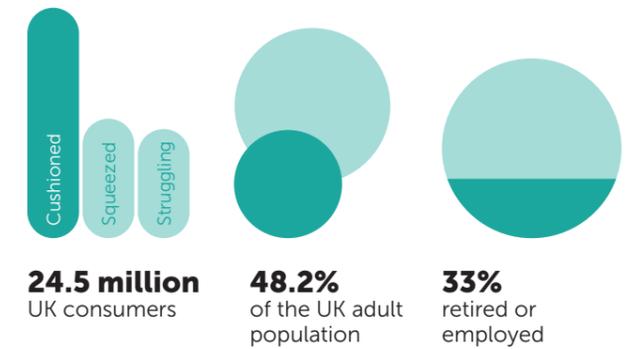
█ Cushioned **24.5 million**
█ Squeezed **12.7 million**
█ Struggling **11.6 million**

'squeezed' and 'cushioned'.

The MAS financially squeezed segment describes a part of the UK population with significant financial commitments but relatively little provision for coping with unexpected income shocks. This means that a single costly life event or financial shock can lead to debt problems, including spiralling debt. This means that the financially squeezed are a group that could strongly benefit from fresh thinking on how to manage their money. Many people on average incomes are financially squeezed, including working-age families. With many existing What Works Fund projects focusing on the MAS financially struggling segment, the Lab provides a different focus, looking at another important part of the UK population.



The MAS financially cushioned segment



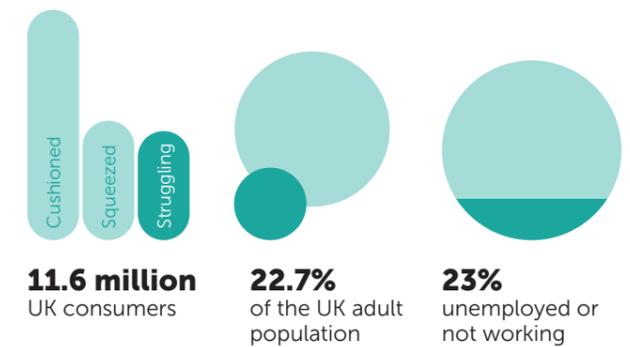
24.5 million
UK consumers

48.2%
of the UK adult population

33%
retired or employed



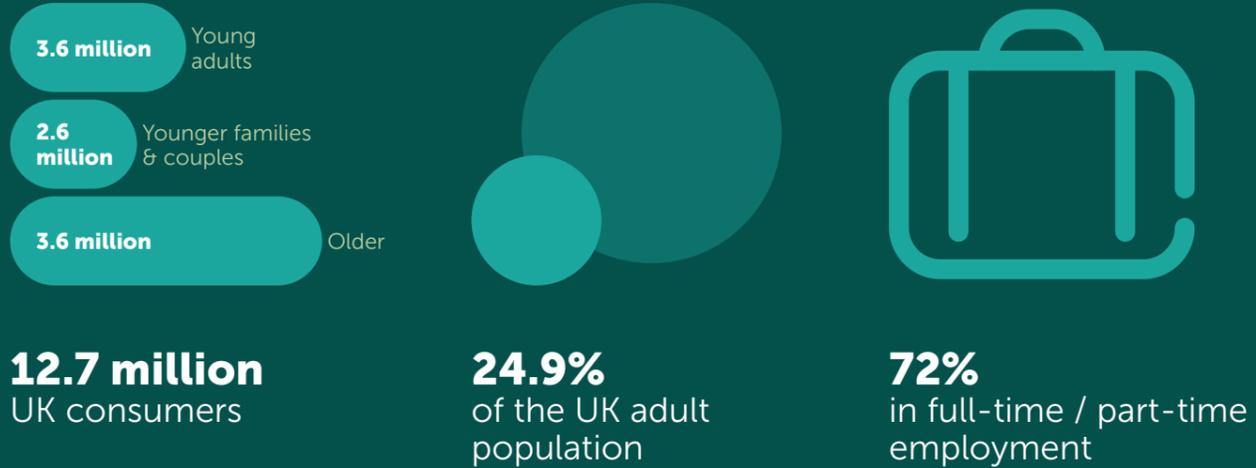
The MAS financially struggling segment



11.6 million
UK consumers

22.7%
of the UK adult population

23%
unemployed or not working



During the initial phases of the Lab, Ipsos MORI organised group discussions and one-to-one interviews with people from the MAS financially squeezed segment. Below, in their own words, people in this group describe the context in which they make financial decisions, in relation to the Lab's questions around building savings, getting help, and managing and spending credit.

Building savings

'It's the stuff that you don't see coming that absolutely screws me over every single year. There's always something. It's a vet's bill or it's something happens with the car. It's the stuff I can't see coming and I'm not in control of that just, it just depresses me. Things happen but because I'm so up against the wall with our finances, the moment something like that happens, it breaks the wall and I'm not in control anymore and I'm seriously depressed.'

'It's always... oh wow, we've saved that, and now oh we need to use that. It's always something, there is always something we have to pay for.'

Getting help

'I don't really answer unknown calls on my phone. It's kind of got to a point where it is a little bit scary. It's scary because I don't know where I currently stand 100% with money. I know it is a bad place.'

'I want someone to be sincere in their words or understanding my situation, for that split section of their life if they're in a much better situation... just put yourself in my shoes and think about how you might want to be treated if you ever got yourself in that situation and you had to pick up the phone.'

Managing spending and credit

'We made a decision to go to my sister's wedding, which cost us so much money and that was a really difficult decision, we're very in debt and it put our debts on hold for a while. That was a really difficult decision but we chose memories over debts so we went.'

'I've got a partner and I find it frustrating because when I'm being good and then he's being really extravagant and I find that I'd like to control him and I can't control him.'

2.2 Process and methods used in the Lab

2.2.1 The Lab process

For each of the three challenge questions, the Lab then followed a structured process.

First, we conducted a review of the behavioural science literature to highlight the relevant behavioural barriers and drivers of building savings, getting help and managing credit.

We then ran a series of structured workshops with business, academic, third-sector and government experts in financial capability. Using the exploratory research and literature review, we generated over 240 ideas informed by behavioural science to tackle the challenge questions. We focused on generating innovative ideas that, when investigated, would fill gaps in the evidence, and were not already being delivered by the market.

Following this exploratory work and idea generation, the ideas were prioritised according to their potential impact and feasibility. Colleagues from MAS and BIT then voted on this prioritised list to produce a shortlist of potential ideas. The ideas in the shortlist were then developed by BIT, which conducted a short initial literature review and provided recommendations for testing. A final vote on the shortlist was then held involving both MAS and BIT colleagues to identify those ideas that would be taken forward to testing.

These ideas were then tested through BIT's online experimentation platform, Predictiv, and through qualitative methods.



The 17 ideas we tested

Idea	Type of test	Next steps	Page number
Building savings			
Checkout Savings Using timely prompts to save at online and physical checkouts	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	34
Savings Supporter Saving using the power of social connections	Qualitative research (a workshop and interviews).	Actively seeking partners for fieldwork.	44
Sidecar Account Saving automatically alongside pension contributions	Online experiment using Predictiv and qualitative research (a focus group and interviews).	Partnership agreed – fieldwork planned.	25
Communicating the benefits of complex financial products Using a more flexible way for people to automatically transfer savings from their current account	Online experiment using Predictiv.	No further action in the Lab.	50
Cook and Save Using emotionally engaging goals to encourage saving	Qualitative research (a series of interviews).	Further research and development.	42
Updating beliefs about the probability of experiencing financial shocks	Online experiment using Predictiv.	Further research and development.	52
Getting help			
Guidance That Is Right On Time Using transaction data to offer guidance at useful and salient moments	Qualitative research (two focus groups and interviews).	Actively seeking partners for fieldwork.	36
Incentivising people to seek help Using prize-linked incentives to seek guidance	Proposal based on existing evidence.	Further research and development.	47
Tell Us Once Integration Linking into an existing service to offer guidance at a crucial time	Proposal based on existing evidence.	MAS partnership discussions ongoing separate to Lab.	36
Financial Guidance First Aider Signposting to guidance from the workplace	Qualitative research (two focus groups and interviews).	Further research and development.	45
Managing credit			
Repay and Save Helping people with unsecured debt by consolidating the debt, accelerating repayment and then making the transition to saving easy and attractive	Qualitative research (two focus groups and interviews).	Actively seeking partners for fieldwork.	23
Increasing Credit Card Repayments Changing repayment interfaces to help people to repay more than the minimum amount	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	21
Improving Price Comparison Websites Making behaviourally informed additions to price comparison website interfaces	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	30
Understanding Credit Cards Better Providing simple, salient and timely information so that people understand the key features of their credit cards	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	28
Offer Blocker Blocking unsolicited offers of credit	Qualitative research (a series of interviews).	Further research and development.	39
Card Controller Adding behaviourally informed features to money management apps	Qualitative research (a series of interviews).	Further research and development.	40
The role of planning tools and reminders where decisions are made under pressure	Online experiment using Predictiv.	Further research and development.	55

2.2.2 Research methods

The Lab used qualitative research and online randomised controlled trials to provide both depth of insight and robust findings. For those ideas where further depth of insight into the context in which financial decisions were being made was required, we conducted investigations using qualitative methods. For those ideas where robust evidence of what works was required, we conducted online experiments using BIT's testing platform, Predictiv.

Qualitative tests

Qualitative research coordinated by Ipsos MORI allowed us to explore ideas in depth through face-to-face interviews, focus group discussions with between six and eight participants, and half-day workshops with up to 25 participants. For all ideas, some of the participants who participated in group sessions were interviewed by phone one to four weeks later to explore whether they had changed their attitudes, intentions or behaviour.

Qualitative research seeks to understand not only what people do and think but also why this is the case. The findings from our qualitative work are intended to inform the development of field pilots by illuminating why aspects of a design may work well for some people and not others. When interpreting the qualitative research findings, it is important to note that, although all participants were recruited from the MAS financially squeezed segment, the small size of the sample means the findings are illustrative and exploratory rather than representative of the segment. It is equally

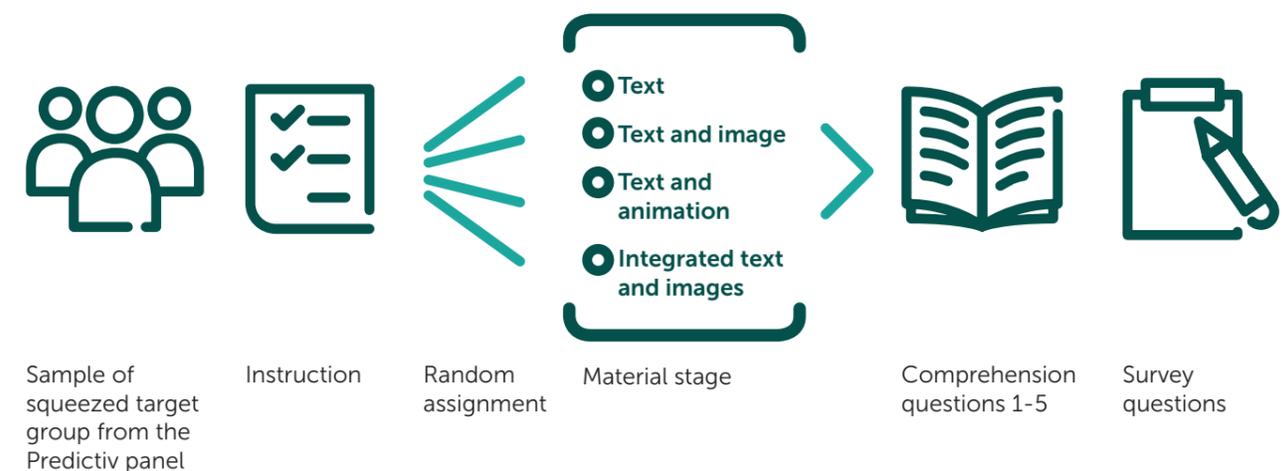
important to be mindful of how, in any group environment, participants' views can be influenced by others present. The follow-up in-depth interviews helped to mitigate this risk. Providing people with the opportunity to give feedback privately, as well as in a group, also helped to ensure that we were able to understand their views in detail. Our qualitative work therefore provides important information on how the ideas may play out in any field pilot but the findings should not be considered as representative or generalisable evidence of what works.

Predictiv tests

Predictiv is an online experimentation platform developed by BIT. Predictiv allows BIT and other organisations to rapidly run online randomised controlled trials to understand behaviour and evaluate ways to change it. The platform runs tests with a large pool of participants, drawn from a group of over 200,000 adults across the UK and many more across the globe. For the Lab, a set of bespoke screening questions was used in order to identify and recruit participants from the group of 200,000 who were representative of the financially squeezed segment.

Predictiv evaluates the impact of different ideas using the methodology of Randomised Controlled Trials (RCTs). Participants are divided into groups and randomly allocated different material as per the example from the Lab below:

Figure 1: A typical Predictiv test design



The design and outcomes of Predictiv experiments allow us to test key drivers of behaviour, such as comprehension of a product, or to simulate a decision-making situation that people make in the real world. In addition, Predictiv aims to tie consequences to people's decisions to elicit more reliable responses, primarily through financial incentives. This helps to focus people's attention on the task and reduces the impact of social desirability bias, where respondents answer in a way that they think is expected. For example, in the real world a better choice of savings product will result in more savings available to the person, whether through interest or another mechanism. The Predictiv tests described in this report simulated this by making a payment to participants if they made better choices. In one test, participants who chose the best savings product from a set of three offered to them could receive an extra payment, whilst those participants who make the wrong choice only received a flat payment for participating.

Using Predictiv in the Lab allowed us to provide rigorous evidence for what works much more swiftly than if we had conducted traditional experiments in a physical lab or tested the ideas in the field.

The rest of this summary report draws together what we have learnt in the Lab so far. We summarise the ideas that show the most promise, making recommendations for how these could be developed for further testing or as field pilots with business, academic, third-sector and government partners.

3 Themes from the Lab



3.1 Smarter defaults to help people save more and repay their debts more quickly

Defaults and automation are some of the most powerful tools we have for influencing behaviour. The ideas in this section demonstrate ways to design smart defaults to make it easier to save more and to repay debts faster.

Relevant behavioural insights

Hyperbolic discounting

The attractiveness of pay-offs and rewards varies depending on when we can get them: will we get them now or in the very near future, or will we only get them in the more distant future? If we are given the choice between receiving a smaller sum of cash today compared to a slightly larger sum of cash tomorrow, we have a preference for the smaller sum today. However, if we move that exact same choice between a smaller and slightly larger sum into the future (say, the smaller sum of cash in 365 days' time or the slightly larger sum in 366 days' time), we start to prefer the larger sum, as we do not weigh that choice the same when the pay-off is in the distant future instead of the present.¹⁴

This means people might be more open to agreeing to financial trade-offs that happen in the future, where the impact feels less obvious (or painful) than it would in the present. For example, we are much more happy to agree to increase contributions to our pensions in the future when we get a pay rise, compared with agreeing to part with money now. People who do agree to allocating a portion of their future salary increases towards retirement savings end up saving more.¹⁵

Defaults

Defaults involve having a pre-selected choice that people can choose to deviate from if they wish. Defaults are powerful drivers of behaviour: when a particular choice is presented as the default option, people are on average 23 per cent more likely to continue with that option rather than choosing a different option in a wide range of scenarios, including organ donation and investment plans.¹⁶

One of the most impressive examples of this is automatically enrolling employees into workplace pensions (i.e. having enrolment set as the default option that people can choose to opt out of, instead of requiring people to actively opt into it), which has resulted in over 9 million people in the UK automatically enrolled so far, meaning they are saving more or newly saving into workplace pensions.¹⁷

Anchoring

The anchoring effect means that when making decisions we often rely more heavily on, and are perhaps unduly influenced by, the first piece of information we encounter.¹⁸ Minimum repayment information on credit card statements almost certainly acts as an influential anchor for many credit card holders, reducing the amount they repay. Over time this can significantly increase the cost of credit cards as card holders who make lower repayments will pay more interest for longer.¹⁹

The first piece of information we see can be a powerful influence on our decisions. In many cases, however, the demands on our time and cognitive resources mean that we may not consider information or various options, but rather stick with a default on the basis that it is easy.

An option presented as the default choice can also be seen as an implicit recommendation. Both of these are heuristics. This means they are rules of thumb for making decisions that will not necessarily always result in the best choices but that allow us to make decisions more quickly when we are under

pressure navigating a complex world. However, many financial decisions appear to be affected negatively by these heuristics: savers are likely to miss out on the best rate by allowing their savings to sit in an account after a promotional rate has ended, and retirees are likely to buy an annuity from their current provider rather than shopping around.

One focus of the Lab was anchoring effects caused by the minimum repayment information that is provided on credit card statements. These effects can lead to credit card holders choosing a lower repayment amount than they might if no minimum repayment information was provided (see box above for an explanation of anchoring effects). A number of academics have drawn attention to this potential problem, with one estimate suggesting that a 2 per cent reduction in minimum repayments roughly quadruples interest charges.²⁰ In our own work in the Lab, we found that participants in an online experiment who were shown a higher contribution rate for a new savings product were likely to express a preference for that contribution rate over other lower options when asked how much they should pay into the product. This idea is called the 'Sidecar Account'. Further detail can be found below in this section and in the full research report.

The power of these two behavioural biases – anchoring and sticking with defaults – means that it is vital that financial services providers and regulators carefully consider how and when information is presented and what the default option is. In this section we present a number of creative ways to help set up products and interfaces to encourage people to save more and repay their debts more quickly. Evidence that these powerful behavioural insights can be harnessed to improve outcomes is already available. For example, \$7 billion has been accrued in extra pension saving in the USA,²¹ and 9.3 million people are estimated to have become new or increased pension savers in the UK as a result of automatically enrolling people into pensions rather than requiring them to take an active decision to enrol.²² With these examples in mind, we feel the ideas presented here have the potential to scale significantly if evidence from field pilots proves to be positive.

3.1.1 Increasing Credit Card Repayments

Minimum repayments are typically featured prominently on statements sent to card holders and are a regulatory requirement.²³ This minimum repayment can act as an anchor that leads to lower repayments.²⁴ Over time this significantly increases the cost of credit cards, as card holders are holding debt and paying interest for much longer periods of time.

We developed a repayment interface informed by behavioural science – what we will call a 'behaviourally informed interface' – that complied with current regulations on minimum repayments whilst aiming to help card holders to overcome the anchoring effect that minimum repayment information can exert. The main component of our interface was a slider. Sliders are used across the financial services sector, often to help consumers decide how much they would like to borrow, potentially making it easier to borrow larger amounts.

In an online experiment, we randomly allocated participants to different interface designs, some incorporating variations of a slider:

- A control condition based on the industry standard: a box to enter the repayment amount.
- A monthly repayment slider interface defaulted to the minimum repayment. The scale on the slider ran from the minimum monthly repayment on the left (£169) to the maximum available in the online experiment scenario on the right (£400). The default position of the 'thumb' (the interactive part of the slider that is clicked and dragged to set the repayment amount) was on the far left, the minimum repayment.
- A monthly repayment slider interface with a higher default. The only difference compared to the previous slider interface was the default position of the thumb, which in this case was set to the centre of the slider rather than the far left of it. We expected this higher default position (with the thumb at £284) to anchor participants to make higher repayments than when the thumb was set at the level of the minimum repayment.
- A timing slider interface (see Figure 2) with the slider set by default to the minimum repayment. The scale on the slider ran from the date participants would repay their hypothetical debt if they were making minimum monthly repayments (on the left), to the date they would repay their debt if they were making the maximum monthly repayments (on the right).

Figure 2: Example of slider with time scale to choose repayment amount



The minimum repayment amount was highlighted in the instructions to all participants. This minimum repayment amount was pre-entered in the box in the industry-standard repayment interface and was the default position of the slider in two out of the three slider interfaces.

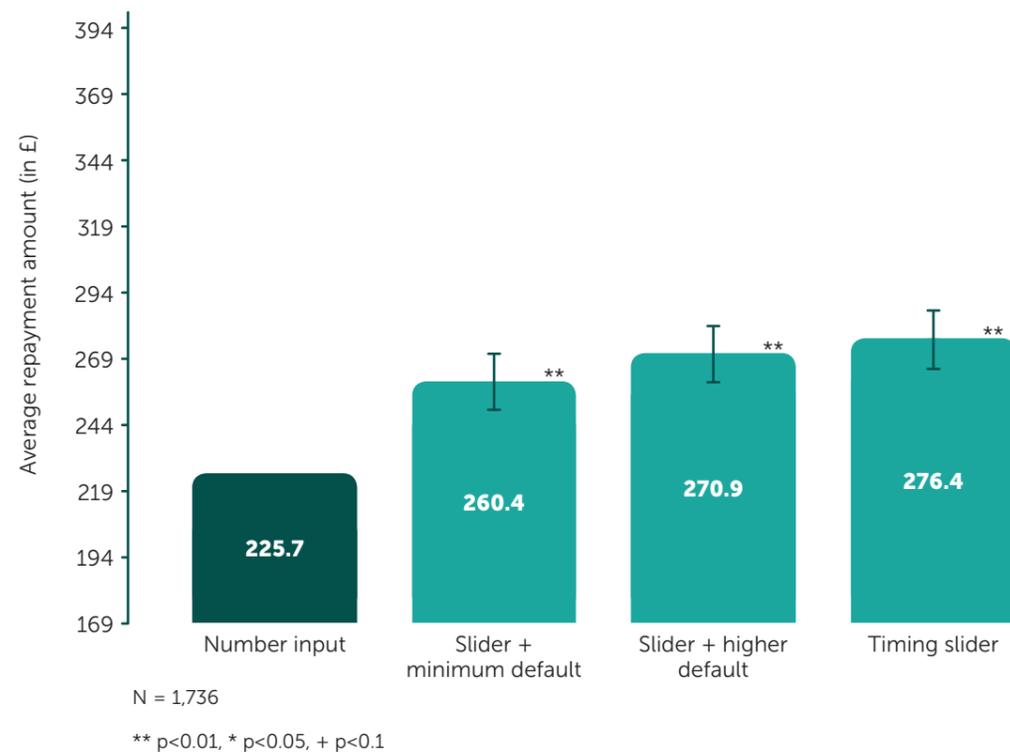
We asked participants to make two choices:

- a hypothetical choice about what they would repay if faced with this decision in the real world; and

- an incentivised choice where we paid participants based on their ability to work out what they should repay (the maximum repayment available within the confines of the experiment).

Our results show significant increases in repayments for all of the slider interfaces that we tested, compared with the current industry standard. This result held across both what participants thought they would repay and what they thought they should repay (see Figure 3).

Figure 3. Effect of slider interfaces on repayment levels (stage 1: hypothetical choice²⁵)

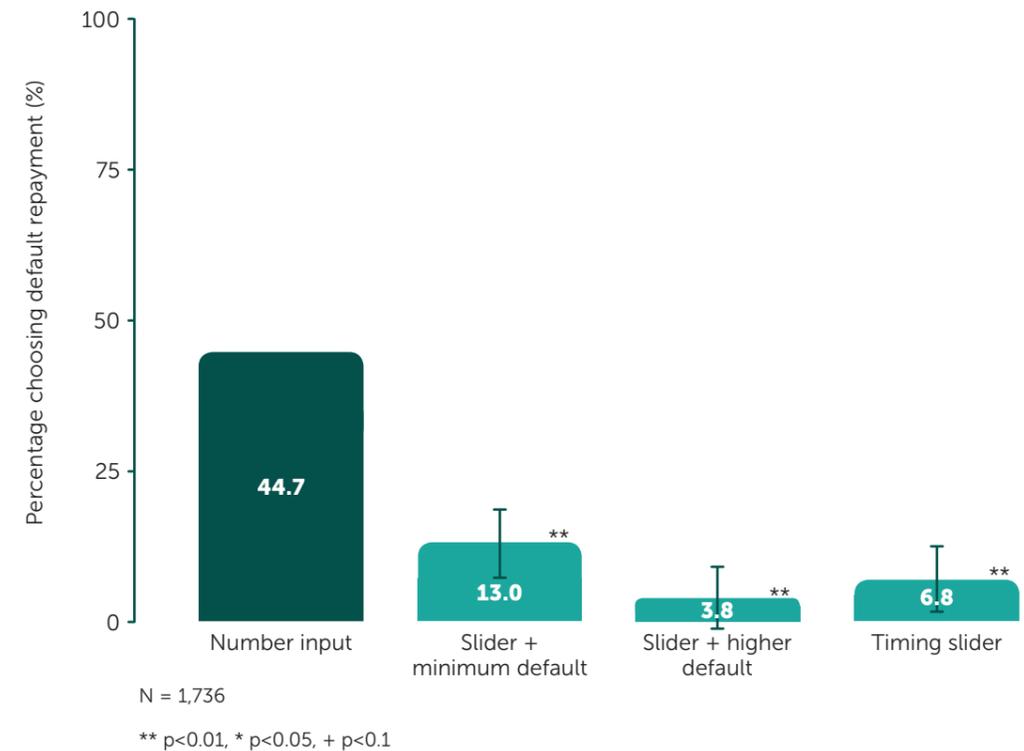


Note: The default repayment is £284 in the 'slider + higher default' condition and £169 otherwise.

For example, if a borrower with £5,000 of credit card debt at an APR of 28% was to increase their payment from the minimum of £169 to £276 the overall interest paid would decrease by £2,107, and the debt would be paid off approximately two years and three months earlier. Additionally, and

compared with the control, participants who used the slider interfaces to make repayment decisions were significantly less likely to be influenced by the minimum repayment anchor, even though this was the default position in two of the slider interfaces (see Figure 4).

Figure 4: Percentage of participants choosing the default repayment amount



Next steps: Based on the evidence from our work in the Lab, we think this idea could have a wide-reaching positive impact on consumers, particularly those who need the most support. It has the potential to reduce the cost of debt, and

if field tests are successful and it is implemented at scale it could help millions of credit card holders. We are therefore looking for partners who can work with us to further develop and test this slider interface in the field.

3.1.2 Repay and Save

The second idea to highlight in this section uses smarter defaults to help consumers to both repay their debts faster and subsequently start saving. This idea is based on a range of behavioural, market and qualitative sources.

Repay and Save is an idea for a financial product that uses automated payments made directly from salaries to help employees to pay down their debts more quickly. It also enables them to transition easily to saving once they have repaid their debts.

The most novel aspect of this idea is the automatic transition to saving once the person has repaid their debts. Due to our general preference to stick with a default or status quo²⁶ once the regular payments from our salary have become habitual, we are more likely to continue making those payments. This insight is often used to retain customers on financial products after attractive initial offers have

expired (interest-free introductory rates on credit cards, for example). Repay and Save turns this on its head and makes status quo bias work for people by transitioning them easily to saving once they have repaid their debts.

However, as paying off a debt is an important moment that people look forward to, a default may not be enough to keep people in the scheme and making the transition to saving. People may rightly want to feel the relief of having more money available after paying off a debt. Paying off a debt can be a great feeling for those who have been in debt for a number of years and therefore it is important that the product rewards the achievement. Repay and Save creates the rewarding feeling of a financial windfall by halving the first savings payment compared to the last debt repayment. For example, somebody who has been repaying £100 each month will automatically be transitioned to saving £50 each month, meaning a windfall of £50 relative to the previous month upon repayment of the debt. In this way, Repay and

Save makes sure that people who have successfully repaid their debts have more cash in the bank from the first month of being debt free, encouraging and reinforcing positive savings behaviour. Auto-escalation would then increase payments from this starting point of £50 in the same way as for increasing debt repayments.

Repay and Save has four steps:

1. **Consolidate** existing unsecured debt into a single low-cost workplace loan paid directly from a person's salary.
2. **Auto-escalate** debt repayments in line with pay rises.²⁷
3. Once the debt is repaid, **automatically switch people to saving with a windfall effect**.
4. **Auto-escalate** savings payments in line with pay rises.

Many people are highly unlikely to increase pension saving or debt repayments on their own initiative as doing so can feel like a financial loss. This is highly relevant from the perspective of behavioural science, where research has suggested that we dislike losses up to twice as much as we like equivalent gains.²⁸ If instead we agree to forgo a part of our future salary increases, then this reframes the increase in our payments as merely a smaller increase in income rather than a drop in income.²⁹ Equally, our tendency to undervalue gains that are further in the future compared to those nearer to the present makes this future increase seem more attractive than increasing payments now.³⁰

Workplace finance is a growing market that could benefit from using this behaviourally informed feature to improve what it can do, alongside loans that often offer lower interest rates than are available elsewhere in the market for equivalent sized debts.

Producing rigorous evidence for whether Repay and Save will work for consumers will require a field pilot to explore the challenges of auto-escalation and transitioning to saving over real-world timescales as opposed to the short amounts of time available for Lab tests. To facilitate the development of a pilot in the field, we conducted focus groups and interviews with people from the MAS financially squeezed segment.

The majority of participants in these focus groups and interviews expressed interest in the opportunity to easily consolidate their debts and transition to saving once those debts were repaid:

'I like the idea of it as a person who's done hardly any saving in their years working, I like the sound of it.'

Male, 25, London

They recognised the benefits of automation and simplicity. The potential challenges that participants identified fell into three broad categories: confidentiality, debt portability and the mechanism for increasing repayments. Participants were anxious that their colleagues might gain information about their financial situation, a concern that was particularly pronounced for those who worked for smaller companies. Participants also asked for information and reassurance about what would happen to their loan and savings if they left their current employer. Finally, the idea that payments could be increased automatically was a source of anxiety for a number of participants:

'The word "automatically" is a bit scary, because it sounds a bit like whoa, whoa, whoa, stop, hang on a minute.'

Female, 25, London

Next steps: Repay and Save combines well-evidenced behavioural insights with elements drawn from Save More Tomorrow, one of the most successful behavioural finance programmes. This is a promising opportunity to build a product that could offer benefits to all parties: employees could benefit from lower-cost debts and a more attractive switch to saving; employers could see increased engagement as money worries are reduced; and finance providers may find consolidated loans linked to salaries more attractive in risk terms. We are seeking a finance provider and a large company with a sufficient number of UK-based employees, or a debt consolidator or retail bank, to robustly test different variations of the product within one trial, particularly to explore the best mechanism for auto-escalation.



3.1.3 Sidecar Account

A significant problem for people in the MAS financially squeezed segment is the lack of a savings buffer to help them deal with unanticipated costs.³¹ The Sidecar Account is an idea for a liquid savings account that has been developed by Brigitte Madrian and David Laibson at Harvard University. A sidecar account is intended to help employees deal with financial emergencies such as a car or washing machine breaking down. The sidecar account sits alongside a workplace pension pot, and contributions flow automatically into both pots.

This idea uses the insight that we are far more likely to agree to take positive but costly steps in the future than in the present. In addition, if we can automate those future steps, then we are far more likely to stick to them as the pressures of life take our attention onto other urgent tasks and decisions.

A partnership involving Nest Pensions, academics from Harvard University, and MAS has been formed to further develop and test the idea. A planned field pilot starting in 2018 and the opportunity to scale the idea alongside the UK's existing automatic enrolment programme meant this idea was an early priority for our work in the Lab.

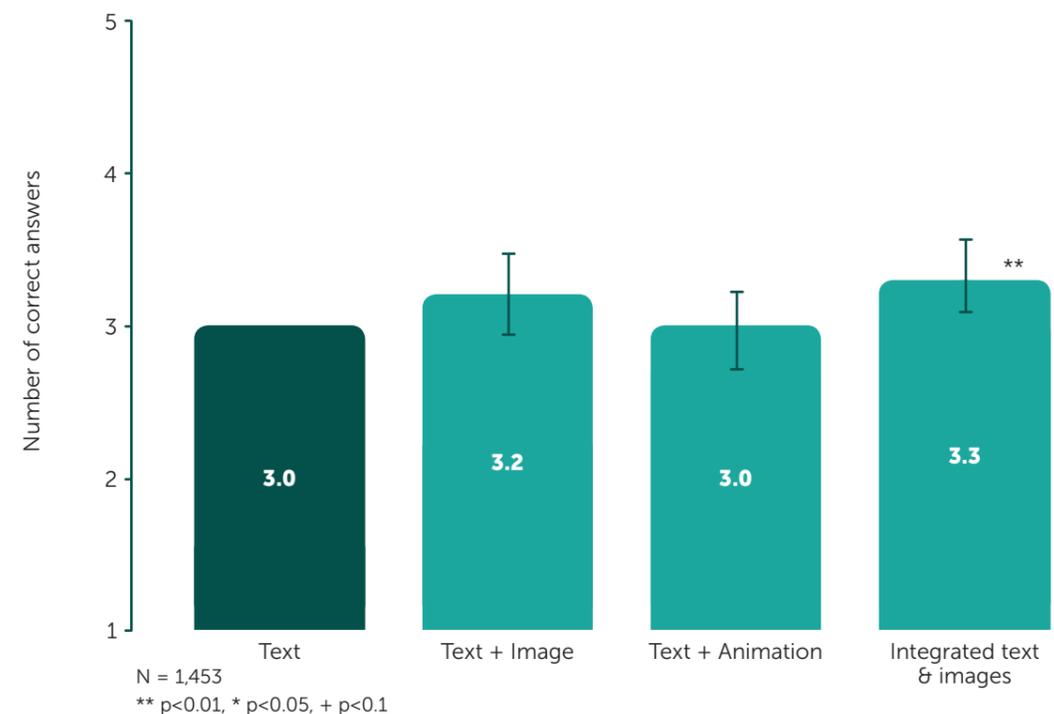
We ran a focus group and interviews to identify the challenges any field pilot might face, particularly on comprehension, as current UK regulations mean that participation in a pilot would have to be

opt-in rather than opt-out. We then ran an online experiment using Predictiv, testing behaviourally informed ways to present the idea.

Participants in the qualitative research thought the idea would be easy to administer, as contributions would be deducted straight from their pay into savings. However, some of the participants found aspects of the idea complicated and confusing, particularly with regard to why employers weren't contributing. Some participants also suggested that the target buffer of £1,000 was too low to cover financial shocks. In contrast, many participants were concerned about how long it would take them to save £1,000. Further qualitative research has also been conducted by NEST, Harvard University and MAS on the Sidecar Account and is available [here](#).

We ran an online experiment in which we showed participants explanations of the idea presented in various ways and then asked them to answer questions on what they had just seen (see Figure 5). The results suggested that the best way to help potential field pilot participants to understand and engage with the Sidecar Account idea was to 'chunk' images explaining particular aspects of the ideas alongside short, clear sentences, presenting these nuggets of information on separate screens shown to participants sequentially. This means that information about how contributions would work can be considered and understood separately from other information, such as the time it would take to save various amounts.

Figure 5: Number of correct answers by type of explanation shown



We are confident that our interventions increased understanding of the Sidecar Account. In addition, increased understanding correlated with increased interest in signing up for the Sidecar Account.

Participants were randomly assigned to see default contribution rates of 1 per cent, 3 per cent or 5 per cent for the Sidecar Account. More participants who saw 1 per cent as the default contribution rate told us they were more interested in signing up to the Sidecar Account than those participants who saw higher default contribution rates.

When we asked participants what rate they would like to contribute to the Sidecar Account, those who saw higher default contribution rates also told us that they would prefer higher contribution rates. This is most likely an anchoring effect.

Next steps: If we find positive effects in a field trial then we could be confident in scaling the idea and taking advantage of existing defaults to offer the scheme as a default option alongside existing workplace pensions – potentially helping many people to begin saving for a rainy day. Our work on this idea demonstrated how important it is to make explanations of financial products as simple as possible. The use of chunking, an approach based on behavioural science, resulted in a significant increase in comprehension compared to carefully worded but longer-form text, image and video based explanations. The results of our work in the Lab will inform and feed into the work in the field that Nest Pensions, MAS and Harvard University colleagues will begin this year.

3.2 Improving comprehension through simple, salient and interactive product information

These tests demonstrate that product information can be compliant with existing regulations on the provision of information without overloading and confusing consumers. Behaviourally informed approaches can highlight the information people need to know, when they need to know it.

Relevant behavioural insights

Choice and information overload

There are limits to the amount of processing capacity our brains have available to take on board information, evaluate it and make decisions based on it.³² This means that when we are given a lot of different options to choose from, we can't necessarily do a good job of taking all that information about the pros and cons of the different options into account and juggle it effectively to arrive at the best possible decision. Ironically, when faced with many options, we actually might make a worse decision than if we were faced with fewer options, or we might choose not to make a decision at all.

For example, Sweden tried to help out its citizens by offering a wide range of options for investing their pensions, but, instead of this leading to increased engagement and better outcomes, fewer savers actually made choices about how to invest their pension. Faced with an overwhelming amount of information, people may prefer to stick with the status quo, even if that is not in their best interests.³³

Salience and simplification

The constraints of our brain's processing capacity mean that simplification and salience can be powerful tools to help ensure people get the key pieces of information they need to be able to make better decisions. Simplification is exactly what it says it is: it's about removing any unnecessary information or distraction, to make it easier for people to take onboard the most important information or to clearly understand what actions they need to take. Salience is about making something relevant and attention-grabbing to people.

A BIT field trial employed both of these behavioural insights: it simplified a 50–100 page pension 'wake-up pack' down to a single-sided 'Pension Passport' with simple, salient and personalised information, alongside a checklist of next steps. This was sent to people approaching retirement and resulted in a tenfold increase in the number of people seeking guidance on what to do with their pension at this crucial decision point.³⁴

Most financial products come with thick terms-and-conditions booklets full of detailed information about all the aspects of the credit card, savings or current account that has just been purchased. Consumers buying financial products can easily be overloaded by this information, which they neither want nor need at the time it is given. This causes disengagement, low comprehension and confusion.

Our research confirmed that information is often ignored when it is not presented in a way that will attract attention or is not relevant to the decision immediately at hand. For example, in one of our early online experiments, we offered participants extra information to help them understand the benefits of using standing orders to build savings. Roughly 90 per cent of our participants did not access any additional information on the

standing orders before making a decision about which option was the best. This idea is called 'Flexible Standing Order'. Further detail can be found below in this report on page 50 and in the full research report.

In another online experiment we asked people to pick the best credit card from a mocked-up price comparison website. This included a link to a 'summary box' for each of the credit cards offered. Summary boxes included all the key product information set out in a simple, standard, at-a-glance format. Summary boxes were 'created by the credit card industry to make it easier for consumers to understand and compare credit cards'.³⁵ Despite us paying participants based on their ability to pick the best card in the test, the participants clicked on 15 per cent of the summary box links we presented



to them. This suggests that a clear majority of our participants made their decision about which credit card was best without considering this explanatory information. This idea is called 'Improving Price Comparison Websites'. Further detail can be found below in this section and in the full research report.

Another of our online experiments asked participants to read examples of existing credit card application web pages. We paid participants for correct answers to our questions. Of our participants, 97 per cent failed to click on the summary box link. This suggests that almost all of our participants felt that they did not need the information in the summary box, did not wish to spend time looking at it or did not even notice the link. This idea is called 'Understanding Credit Cards Better'. Further detail can be found below in this section and in the full research report.

In our initial workshops, many partners from financial services, governments, charities and other organisations recognised these challenges of helping people to understand financial products and services. Our research indicated clear potential for improvement on existing industry efforts at smarter disclosure of information about credit cards. In the rest of this section, we outline two ideas to help people in the MAS financially squeezed segment

deal with the challenges of information and choice overload. These ideas use behaviourally informed disclosures and interfaces to improve the experience of choosing and applying for a credit card.

3.2.1 Understanding Credit Cards Better

The first idea aims to address information overload by providing simple, salient and ideally interactive information at the moment in time when it is most useful to consumers.

To test the idea, we conducted two online experiments using Predictiv. The first test diagnosed what consumers do and don't understand about balance transfer credit cards at the application stage. Participants were randomly assigned to see one of three examples of credit card provider web pages that invited consumers to apply for a balance transfer credit card. Participants were then asked questions to discern whether they had understood the costs (fees, charges and interest) associated with the cards.

In this first test, participants answered a third of questions about the costs associated with the credit card correctly, regardless of which provider's web page they saw (see Figure 6).

Advertising of balance transfer cards often relies heavily on the 0 per cent introductory interest rate offer. Following research conducted by Which?,³⁶ we were concerned that participants might not understand that they would be charged a balance transfer fee for transferring a balance from an old credit card to a new credit card. We therefore looked in detail at the number of correct answers to the following question: 'Will you be charged for transferring a debt from an old credit card to this card?'. We found that the majority of participants in this first test answered incorrectly. This indicated that there is sizeable room to improve consumer comprehension of credit card costs at the application stage. We therefore designed a second test to explore whether making relevant information simple and salient could improve comprehension of the costs of balance transfer credit cards.

The second test compared a current provider website with two behaviourally informed versions of the same website that sought to make the most important information for people purchasing a balance transfer credit card simple, salient and interactive. Importantly, we did not remove information when producing our behaviourally informed websites. Rather, we used insights on informational positioning to present the most vital information in the most salient part of the website. We tested:

1. an actual credit card application page as a control
2. presenting the most important information as 'Six Key Facts'; and
3. presenting the most important information as 'Four Key Facts' (see Figure 7), removing two pieces of information that were less relevant at the application stage.

In addition, both of the treatments:

- represented costs as **pound values rather than percentages**³⁷;
- added a **reading cue**³⁸ that told participants it would take them less than two minutes to read the key facts; and
- made the information **interactive** by adding a slider³⁹ that provided feedback on the cost of transferring various balances.

Figure 7: Example of 4 Key Facts box

4 key facts about this card
Takes less than 2 minutes to read

1. Balance transfer fee

You'll be charged **£1.95 every £100 of debt transferred** for the first 60 days. After this it becomes £5.00 for every £100 transferred.

Use this slider to work out how much you will pay in fees:

£0

£100

£2,000

If you transfer

It will cost

2. Interest on balances transferred

You'll be charged **£0 in interest for the first 38 months**, then £20.90 per £100 per year.

If you transfer a balance after 60 days, you will pay the higher interest rate immediately.

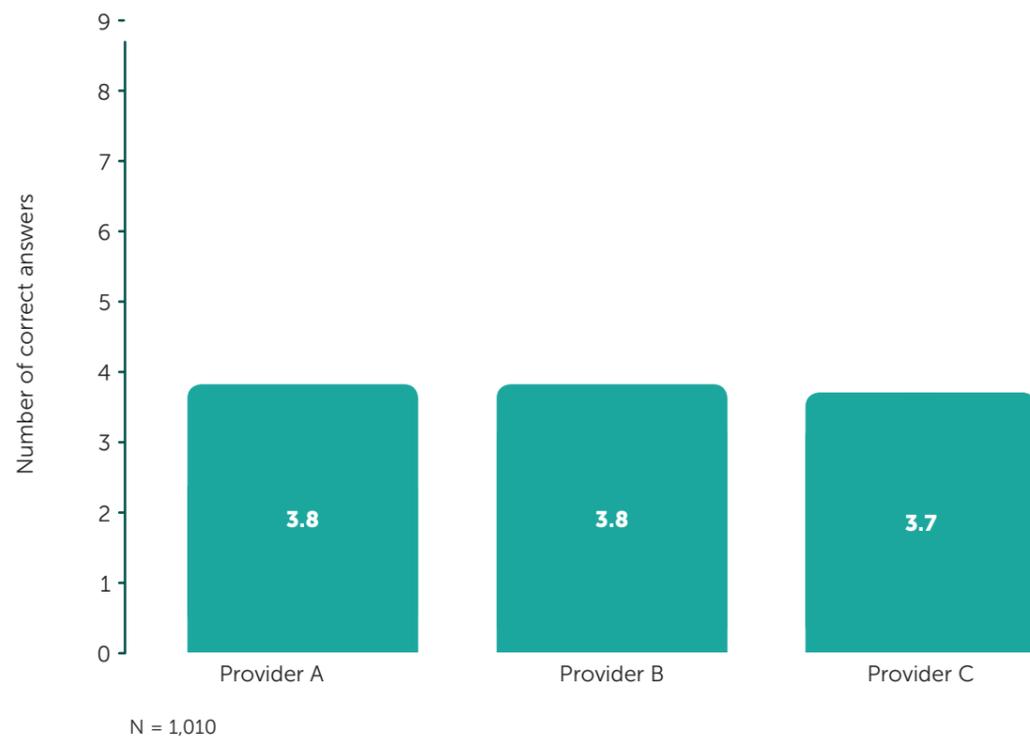
3. Interest on purchases

You'll be charged **£0 in interest for the first 3 months**, then £20.90 per £100 per year.

4. You can lose your £0 offers

You'll lose your promotional offers if you miss a minimum payment or go over your credit limit.

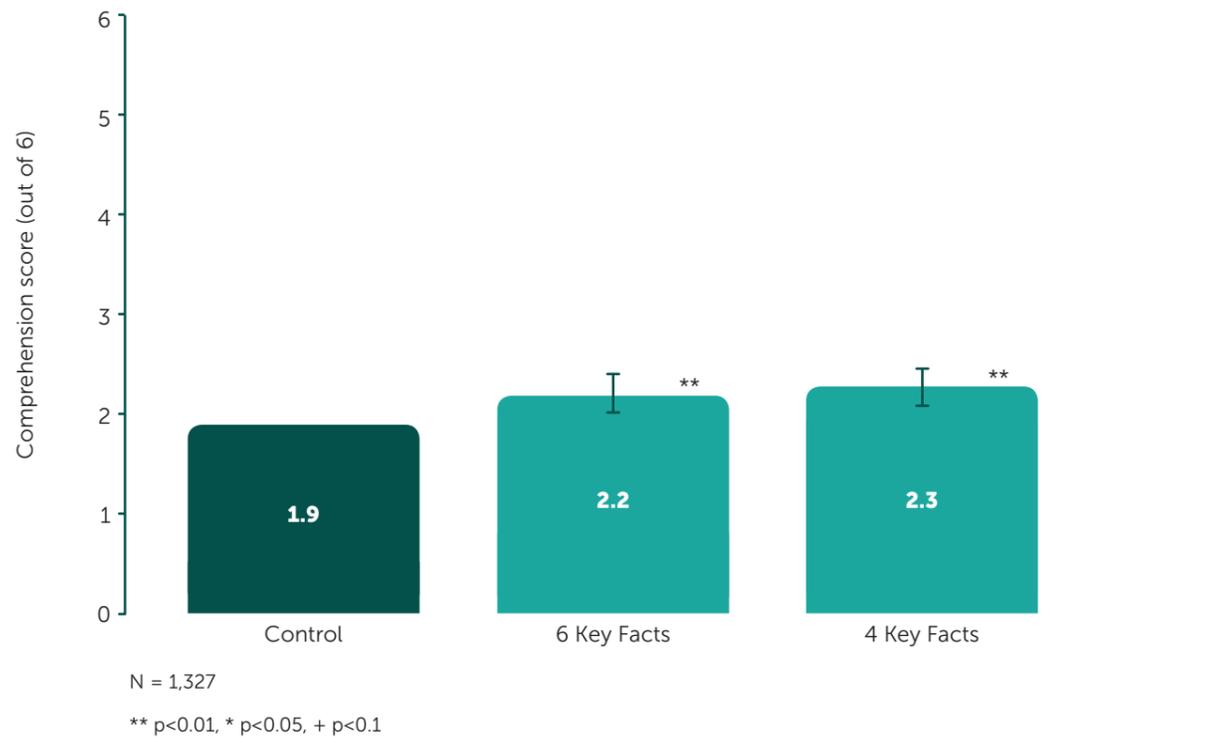
Figure 6: Number of correct answers about the credit card costs associated with each provider



Compared to the standard website, our behaviourally informed websites caused a statistically significant improvement in the average number of questions answered correctly by participants. Specifically, there was a 16 per

cent increase between the control (the standard application page already used by the card provider) and the Six Key Facts and a 21 per cent increase between the control and the Four Key Facts (see Figure 8).

Figure 8: Number of correct answers about balance transfers by treatment shown (six questions)



Next steps: This approach of making information simple, salient and interactive could be applied across the credit card customer journey to help credit card holders to understand and therefore use their credit cards in a more optimal way. We are seeking

credit card providers to co-develop the idea with us, potentially testing the approach at a number of different points along the customer journey. Our interventions significantly increased comprehension but there remains further room for improvement.

3.2.2 Improving Price Comparison Websites

Continuing the theme of making information about financial products and services work better for consumers, we were interested in digital comparison tools. The growth and competitiveness of one particular class of tool, price comparison websites (PCWs), benefit many consumers in many markets.⁴⁰ However, PCWs face a particular challenge in presenting simple, salient, interactive and personalised information on a wide range of complex products, such as credit cards.

Consumers often exhibit overconfidence in their predictions regarding their future financial behaviour – believing, for instance, that they can pay off a balance within an interest-free promotional period.⁴¹ Interest-free periods on credit cards are highly appealing and attention-grabbing to consumers, whilst other features of credit cards receive less attention and therefore less competitive pressure.⁴² Interest-free introductory offers can become problematic when consumers do not pay off their debt within the promotional period and are then hit by high interest rates on their outstanding debt.⁴³ This is particularly of concern for the 1.6

million UK credit card holders systematically making minimum repayments⁴⁴ as it can lead to large increases in the total cost of borrowing, as individuals hold on to their debt for longer.⁴⁵

Given the importance of information regarding total cost when making credit decisions,⁴⁶ we set out to improve the presentation of this information on PCWs to help consumers, including those 1.6 million minimum repayers, to choose credit cards that reduce the overall cost of their borrowing.

To test this idea, we ran an online experiment using Predictiv. In this test we randomly allocated participants to see a basic PCW interface or to see a behaviourally informed PCW interface that:

- **Made fees and charges salient using a dynamic interface** (see Figures 9 and 10). The information on the total cost of the card and time to repay the debt changed dynamically in response to participants' interactions with the slider.⁴⁷ Sliders are not consistently included in PCWs, and existing sliders often do not allow users to select minimum monthly repayments. There may of

course be good reasons for not making the minimum monthly repayment salient, but we tested this by designing the interface to display comparative information on cost for each card on our PCW when making only minimum repayments.

- **Expressed the total cost of borrowing in pounds rather than percentage rates.**⁴⁸
- **Used colour to create a pop-out effect.** We highlighted the most important information using a colour that contrasted with its surroundings, taking advantage of the pop-out effect.⁴⁹
- **Enabled participants to personalise** their financial situation to increase the relevance of the material to them and their engagement with that material.⁵⁰
- **Expressed the time to repay the debt in years and months** (for example, 4 years and 3 months) rather than only in months (for example, 51 months), to make the information easier to understand.

Figure 9: Example of slider with thumb indicating minimum repayment

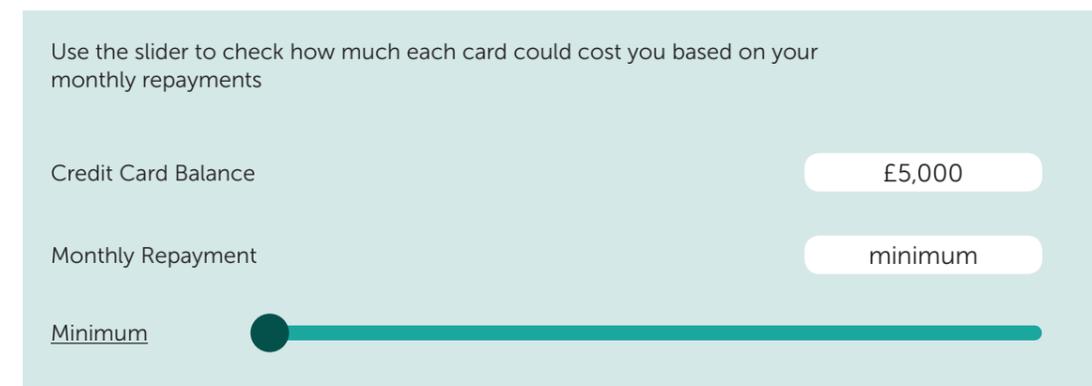
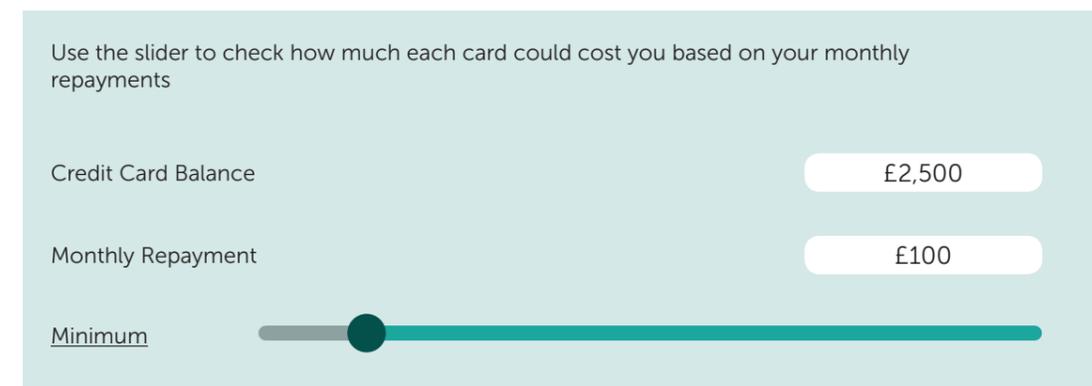


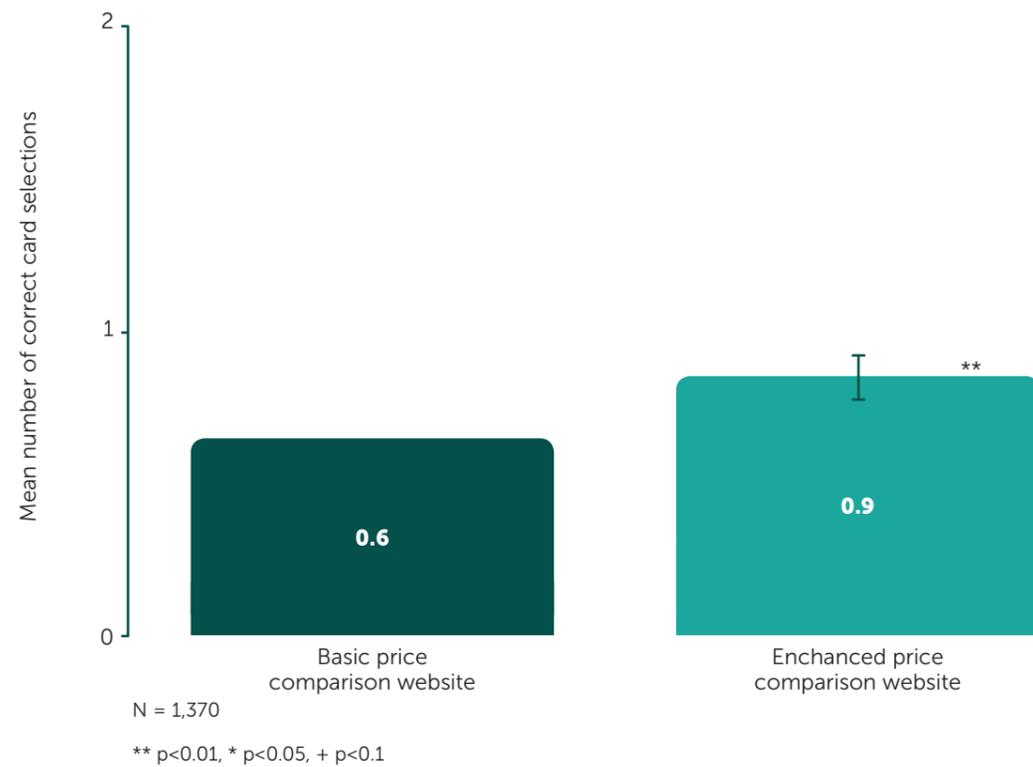
Figure 10: Example of slider with thumb indicating higher repayment



We examined whether participants chose the best credit card from four options, which included low-interest cards and cards with 0 per cent interest promotional offers. The best credit card varied across two hypothetical individuals with different financial scenarios: a systematic minimum repayer for whom an introductory rate was likely to be a negative feature, and someone who could pay more and potentially take advantage of the promotional interest rate.

The enhanced version of the PCW interface significantly improved the ability of our participants to choose the least costly card, both for minimum repayers and those who could pay more (see Figure 11).

Figure 11: Average number (mean) of correct card selections across the two scenarios in the two treatments

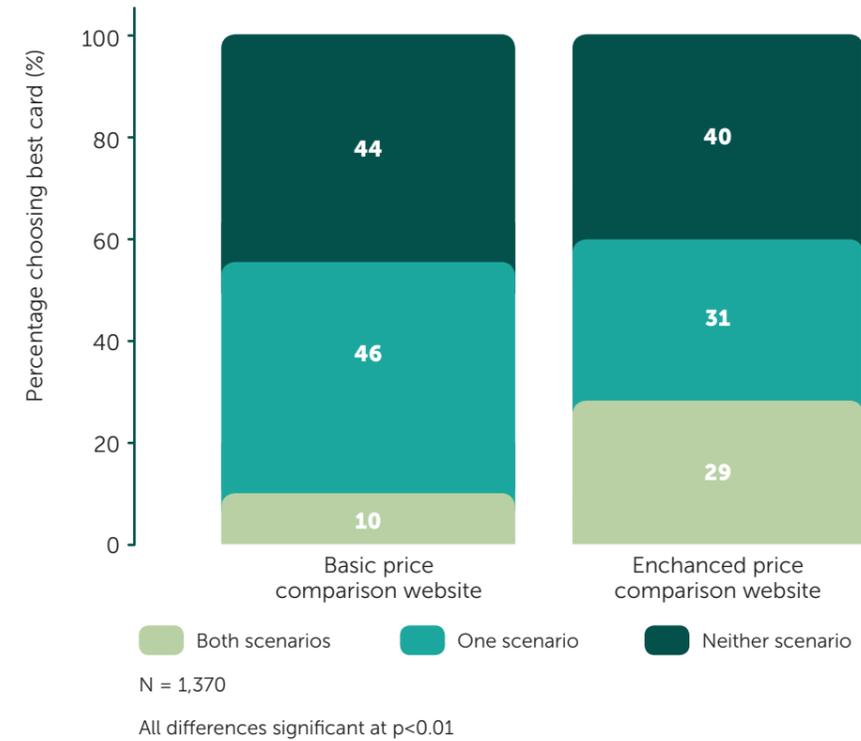


As can be seen in Figure 12, 60 per cent of participants in the enhanced version of the PCW interface picked the cheapest card at least once, compared with only 56 per cent of participants in the basic version. In the enhanced version, 40 per cent of participants did not pick the cheapest card

in either scenario. This is significantly lower than the 44 per cent of participants in the basic version.

Finally, those using the enhanced PCW interface were significantly more confident in their choice of credit card.

Figure 12: Percentage of participants who chose the best card in neither, one or both scenarios in the two treatments



Next steps: Innovation amongst PCWs is already making it easier for consumers to search for and compare credit cards. It is also driving competition between suppliers to provide better deals and choices to consumers. We are looking to partner with a forward-thinking PCW interested in further improving the service they provide to consumers. Specifically, our aim is to test approaches used in this experiment in the

field and to work with a PCW to test further improvements to help people choose the best and cheapest card for them. We are also interested in partnering with financial institutions to test whether the behaviourally informed features of our interface can help their customers switch to more appropriate cards within the range offered by that financial institution.

3.3 Timely moments for prompts, offers of help and new products and services

Prompting people to act at timely moments is an effective way to encourage people to save and seek financial guidance.

Relevant behavioural insights

Timeliness, prompts and reminders

Timely reminders are effective at helping us to make decisions and follow through on plans. There is experimental evidence to support the power of reminders at helping us to save, if they are provided at the right moments in our lives.⁵¹ Moments that may be appropriate for many include the start of a new month or year, or a meaningful date such as a birthday.⁵²

Some reminders are effective if they occur just when they are needed. For example, BIT has sent text messages to students on Sunday nights to encourage them to consider the week ahead at college. In combination with messages sent at other timely moments, these significantly reduced the number of students who stopped attending classes.⁵³

Choice bracketing

Daily life involves making a lot of decisions, but sometimes we group those decisions together, or bracket them. For example, we might try to save money by eating fewer takeaway meals, but whether we're successful will depend on how we group those decisions together.

The financial impact of each individual takeaway might not seem too bad, but the cumulative cost across an entire year might be a very strong deterrent. Our perspective in this case might depend on how we 'bracket' all those decisions throughout the year: do we just focus on each individual decision (and probably keep ordering takeaways frequently), or do we bracket all of the decisions together and look at them as a whole (and probably order fewer takeaways)? As explained in the seminal paper on choice bracketing, people 'fail to integrate the consequences of many similar decisions into their judgments',⁵⁴ meaning that willingness to pay for things changes depending on the environment in which purchasing decisions are made.⁵⁵

This type of thinking about money means that increasing saving can seem unrealistic if you consider it as part of a group of decisions about a stretched monthly budget. Saving more when you have received an annual bonus, however, can make saving a higher percentage of your annual salary seem a more realistic option.⁵⁶

Simple, timely prompts can encourage people to take action. The financial capability experts who attended our workshops suggested many points at which it would be useful to provide behaviourally informed help in the form of prompts or reminders. The ideas in this section tested the role timely prompts can play in encouraging people to save for a rainy day and to seek financial guidance at key moments in their lives. We have focused on specific choice environments or decision points where a prompt could have a big impact.



3.3.1 Checkout Savings

The checkout or payment stage of a transaction is a moment when people may already be considering the consequences of regular purchases for their personal finances. This could make shoppers more open to the benefits of saving, as budgeting requires consideration of future financial needs.

We created a simulation designed to mimic online grocery shopping. Any money participants didn't spend from their initial budget whilst shopping could be taken as a reward as soon as the test finished. We randomly allocated participants to see one of three prompts to try to encourage them to save instead of just taking the money immediately.

1. Reframing the money participants had saved by buying discounted items during their shop as a **savings opportunity** at the checkout:



'You have saved £0.60 On this shop through discounts and specials. Do you want to save this money and earn 2 per cent interest?'

3. Offering participants a chance to save as an **active purchasing choice** whilst they were shopping by transferring money to a **prize-linked savings account**:



'Would you like to save £0.60? If you save, you'll be entered into a prize draw with a chance to win a £3 jackpot.'

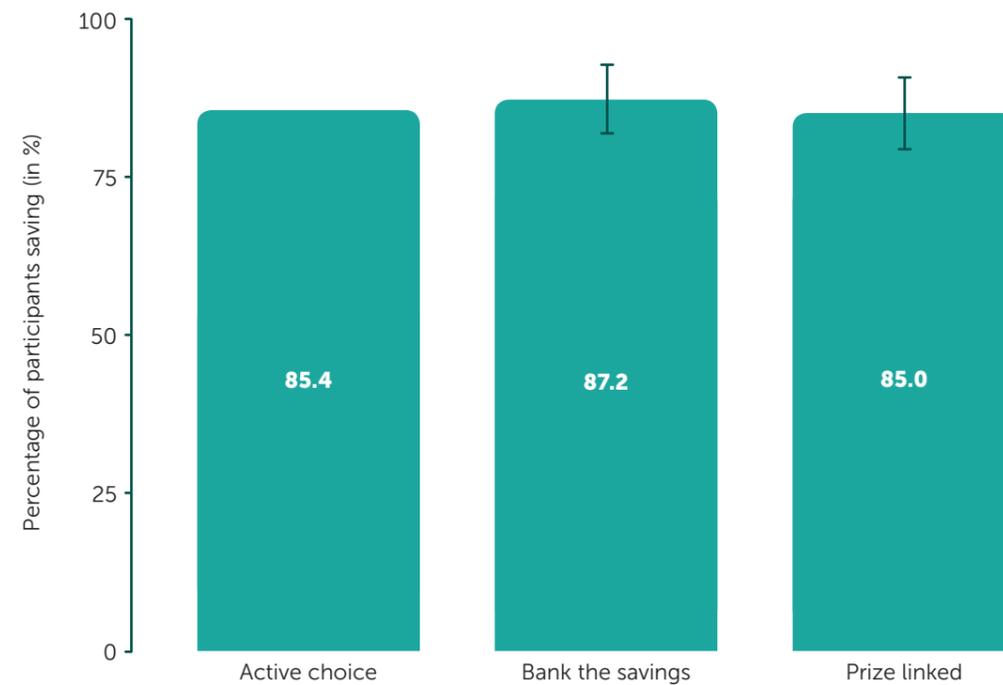
2. Offering participants a chance to save as an **active purchasing choice** whilst they were shopping and transferring money to an **interest-bearing savings account**:



'Would you like to save £0.60? This amount will be added to your bill. You earn 2 per cent interest on money saved.'

All of the prompts resulted in around 9 out of 10 participants opting to save (see Figure 13). There was no significant difference in savings rates between the three different savings prompts.

Figure 13: Checkout Savings: proportion of participants saving



** p<0.01, * p<0.05, + p<0.1

These results are encouraging. However, it is important to note that the proportion of participants willing to save in this test was much higher than in previous laboratory tests.⁵⁷ A possible explanation is the relatively small amount of money available (the most people could earn was £1.10 if they decided to take the money immediately, which worked out to £1.11 with interest three weeks later). It could be that participants did not perceive much value in having such small amounts of money immediately, so their willingness to save increased.⁵⁸ Further testing with larger amounts of money available could help to rule out the possibility that the small amounts of money on offer in this test – or some other factor related to the design of the experiment or the people who participated – may have led to an anomalous result of very high levels of saving.

Next steps: An effective Checkout Savings product could inspire brand loyalty and create an opportunity for a retailer to show commitment to improving its customers' financial wellbeing. We are seeking retailers and financial institutions to work with us to develop the Checkout Savings product and test it with their customers. If we found high rates and levels of saving in the field, then this idea could have a significant impact and create weekly or even daily opportunities to save.

3.3.2 Signposting financial guidance through the 'Tell us once' service

Only around half (5 in 10) of the financially squeezed who experienced a negative family event last year (for example, bereavement) sought help with their finances. This compares to 7 in 10 who thought that they needed help, so many people recognise they need help but don't seek it.⁵⁹ Bereavement is, unsurprisingly, often a major period of transition. Along with its emotional challenges, losing a loved one can create financial challenges, from changes in income and expenses related to the funeral to inheritance of assets and debts.

Tell Us Once⁶⁰ is a service offered by the Department for Work and Pensions that makes it easy for those who have been bereaved to report a death to most government organisations in one go. We initially identified Tell Us Once as a potential touchpoint that could make it easy for people to receive and take up an offer of free financial guidance at a time when it is likely to be impactful. Following discussions with DWP they identified a range of alternative options for touchpoints, including an updated Tell Us Once Service and wider bereavement information via gov.uk. We are now looking more generally at incorporating financial guidance into their bereavement content and journeys. For any touchpoint that is chosen, people could either be referred to the MAS website or opt to receive a call from the MAS telephone service to make an initial assessment of their needs. Crucially, given the sensitivity of the bereavement period, it will be important to consider providing the option to receive the support one, three or six months later, rather than in the middle of a very challenging time.

Next steps: The Money Advice Service and the Department for Work and Pensions are exploring whether incorporating an offer of financial guidance into wider bereavement information increases its take-up and whether this is useful for individuals dealing with the financial impact of a bereavement.

3.3.3 Guidance That Is Right On Time

Signposting people to guidance at moments of change or disruption in their financial circumstances may be an effective way to encourage them to access guidance.

Financial institutions have access to rich information about customers' transactions and may be able to use these data to identify changes or periods of transition. This could include both positive and negative changes in financial circumstances: for example, salary increases or decreases, or patterns of spending and credit repayments that indicate spiralling debt. Financial institutions could use these data to send timely signposts to impartial financial guidance that is appropriate to the customer's financial circumstances. A longer-term possibility is to use these data to offer guidance and products that help customers manage their money more effectively and achieve their financial goals, potentially using some of the features outlined in the separate idea from the Lab called 'Card Controller'. Further detail on this idea can be found below on page 39 and in the full research report.

We conducted qualitative research (focus groups and interviews) to explore how people perceive offers of financial guidance and use of their data, and which messengers might be most appropriate for offering this service.

At first participants expressed a number of concerns about the idea. The views of participants nevertheless developed in a more positive direction as discussion continued, highlighting the potential of the scheme if it was sensitively communicated alongside concrete suggestions for how to do this.

A particular challenge any field pilot would need to overcome would be mistrust and scepticism about the motives of financial institutions:

'How can it be impartial if it's coming from my bank? Because it's usually something that's in their interest.'

Male, 37, London

Participants tended to agree that communications were key and that they needed to highlight the impartiality of the guidance. A common suggestion was that some form of endorsement and branding from government or a reputable independent organisation could bolster trust.

Communications would need to be tactful, genuinely timely and reinforce the security of people's personal data. If the scheme could be communicated effectively then participants expressed positive views about its potential to help:

'I think it's good. It will help your situation. It's not like just throwing things at you. It will help you work together to adapt to your situation.'

Female, 32, London

Next steps: We are looking to partner with financial institutions to further explore when and how customers want to receive support, and what they think the most timely and effective moments would be for them. Further research would focus on the best way to present the support to make participants feel confident and secure in taking it up.

A developed product could be linked to a trusted, government-backed brand such as MAS so as to ensure consumers feel assured about the impartiality of the offer.

To lay the groundwork for work in the field, we would explore how the data held by banks could be appropriately and effectively used whilst maintaining regulatory compliance and being helpful to customers.

3.4 Designing self-exclusion and commitment devices

Where there is a pre-existing motivation to save and/or curb spending and credit card use, people are often willing to self-exclude or commit themselves to future actions that would help them achieve their goals. This can be harnessed to help people save and take control of their day-to-day spending.

Relevant behavioural insights

Goal setting

Setting clear goals can help people to effectively manage their spending habits.⁶¹ There are also various ways of setting goals that can improve their effectiveness. For example, a single savings goal (such as a holiday) is often more effective than setting multiple goals (such as saving for a holiday, medical costs and car repairs).⁶²

Implementation intentions

These are simple plans that help people work towards their goals. Implementation intentions involve carrying out a pre-specified action (one that helps you move towards your goal) when a particular cue or event occurs. Pre-specifying the action and identifying the cue to tie the action to in advance means that the action is more likely to be carried out when the cue occurs, because your brain doesn't have to make a decision and weigh up the options there and then: it has a clear course of action ready to go.⁶³ Implementation intentions often take the form of 'if-then' plans – if this particular cue or event occurs, then I will carry out this action. For example: 'If I get a bonus, then I will immediately put 50 per cent of it into a one-year fixed savings account.'

Commitment devices

Commitment devices ensure there are costs or accountability if a plan is not carried out or a goal is not reached. Commitment devices can be 'hard', involving economic loss (such as requiring a donation to charity if the commitment is not met), or 'soft', involving psychological losses (such as the feeling of causing disappointment).⁶⁴ It has been suggested that commitment devices are particularly useful for financial decisions, as they limit our tendency to make spending decisions 'in the moment'.⁶⁵

Harnessing friction costs

Small changes to the difficulty of completing an action can have disproportionately large effects on the likelihood that people will complete that action.⁶⁶ In much of BIT's work, we remove these frictions to make carrying out a behaviour as easy as possible. However, adding friction into processes can act as a useful obstacle or block to discourage a certain behaviour, such as withdrawing savings, spending, accepting credit offers or exceeding a pre-set limit.

There are a range of insights from behavioural science that can be used in our daily lives to help us achieve our goals. Encouraging people to plan their future actions increases the likelihood that they will carry out a behaviour that they want to engage in. For example, prompting people to write down the date and time of healthcare appointments increases healthcare appointment attendance.⁶⁷ Reminders⁶⁸ and sharing our plans publicly⁶⁹ can help us stick to the plans we make, and clear deadlines can help us work hard to achieve them.⁷⁰ We can even choose to put in place barriers that increase the difficulty of completing an action – for example, in one study,

accounts that allowed customers to restrict access to funds until a specified future date resulted in more savings.⁷¹

These behavioural insights are already widely used by savvy consumers to manage their money. The ideas in this section seek to spread the power and positive impact of planning, goals, deadlines, feedback and commitment devices to many more people through three ideas: a blocking service focused on credit offers and two apps focused on spending.



3.4.1 Offer Blocker

The first idea is based on a regular finding in BIT's work and in the academic literature. Minor details or 'friction costs' affect the amount of effort people need to expend to complete a task.⁷² This in turn has a large impact on whether a person completes the task or whether they put it off, sometimes indefinitely. We designed an Offer Blocker service to actively apply friction to help people manage their relationship with credit.

The Offer Blocker service could work in two ways.

- 1. Simple Offer Blocker**, which would block unsolicited offers of credit by post, phone, text message and email.
- 2. Take Control Offer Blocker**, which would enable individuals to place a note on their credit score files at all the credit reference agencies simultaneously. This note could state, for example, that the individual does not want to be offered credit, or certain types of credit, for a specific period of time.

Both services would help people to take control of their spending and use of credit by making it harder for them to receive offers of credit. The Take Control Offer Blocker would also act as a commitment device, helping people to stick to objectives they have set themselves on spending and use of credit.

We conducted qualitative research (a series of interviews) to investigate whether participants would want to use an Offer Blocker service and whether they felt this would have a positive impact on their spending and use of credit.

Participants who felt tempted by unsolicited credit offers found the Simple Offer Blocker appealing as a helpful way of preventing them from taking out credit unnecessarily:

'Oh God, I would love that. That would be amazing. Just the whole thing. Just block everything. It is harassment, that's exactly what it is... It is just taking temptation out of the way which could really save you on a bad day.'

Female, 36, London

Participants who reported not being tempted by unsolicited offers seemed to be more attracted to the Take Control Offer Blocker, particularly if this service could have a positive impact on their credit score. They did not see themselves as needing restrictions but were keen to improve their credit score to work towards longer-term financial goals:

'This would be good for someone like myself who has not got a good credit score and wants to get it better. It lets credit agencies know that you are trying to take control of your finances. At the moment customers do not have much control over this kind of thing.'

Female, 36, London

Overall, participants felt that the Simple Offer Blocker could be more useful to younger and more inexperienced credit users, whilst the Take Control Offer Blocker could be more useful for more experienced users of credit. A single online sign-up page was seen as a convenient and efficient way of engaging with both services.

Next steps: This idea has the potential to help large numbers of people manage their credit better, but the success of any implementation in the field will depend on how effectively it is targeted. We are therefore looking to engage in further research and development to determine how best to design the service and target those individuals who would benefit from this service the most.

3.4.2 Card Controller

The second idea in this section uses friction alongside a range of other insights from behavioural science to build a behaviourally informed money management app. Behavioural biases and environmental factors can lead many people to spend more than they have or more than they have budgeted. For example, overconfidence can lead us to set unrealistic budgets as we think that we will find it easier to reduce our spending than it turns out to be, and we overestimate how much our salaries will increase in the future.

Many companies are developing or working to improve budgeting apps and services. With open banking rolling out in the UK, many of these apps are designed to use transaction-level data, perhaps from multiple accounts. Card Controller seeks to add features informed by behavioural science to the innovation that is going on in the market already. Money management apps with such features can then help more people to take control of their discretionary spending. The proposed features of the Card Controller app are:

- **Goal-setting:** Identifying a longer-term goal (such as a holiday or a particular amount of savings) can help people to counter their tendency to overspend on smaller items in the present.⁷³
- **Deadlines:** Card Controller would mirror many budgeting apps by using transaction-level data to set challenging limits and monthly deadlines

for future expenditure based on actual data about past expenditure and the goals users have set.

- **Regular feedback:** Reminders can help people to refocus their attention on the future and save more.⁷⁴ Card Controller would provide feedback in the form of regular text messages or app notifications telling users how much they have spent and how this relates to the deadlines they have set to achieve their goals.
- **Setting limits and blocks:** The most important feature of Card Controller would be to block spending outside the limits that have been set. Limits could be set on particular types of expenditure, such as in named shops or types of shops (for example, betting shops or cafes). Users could also limit or block spending during particular periods of time, for example on Friday or Saturday nights.
- **Removing a block:** Limits and blocks work by increasing the difficulty of spending. Transactions on a Friday night, for example, could be blocked first. Card Controller would then offer users a sliding scale of levels of difficulty to remove the block. This preserves the freedom of users to spend if they have a genuine need. At the lowest level of friction, users would be required to send a text back confirming the expense before re-attempting the purchase (see Figure 14). Higher levels could include the requirement to answer security questions or referral to a friend or relative to approve the spending.

We explored Card Controller through qualitative research (a series of interviews). It was encouraging that Card Controller was welcomed by all participants. Participants told us that they were using their credit cards for everyday spending and that they had ambitions to cut back:

'I'd have to go through the effort of having to say "Yes" and sending the message back and unblocking something.'

Female, 35, London

'I think it would be a really good way to organise your spending. A lot of the things we buy we don't really need.'

Female, 34, London

Participants recognised the value of having to make an effort to remove a block:

Nevertheless, many participants had not set limits in a systematic way or used commitment devices. Following the focus groups, we asked participants to attempt to control their spending without an app to support them for two weeks. When we interviewed participants after this period of time, they described small successes and said they would have valued regular feedback on their progress. Participants were concerned about experiencing their card being declined in social settings but clearly recognised the value of setting limits on their spending. The large variations in individual preferences, goals, behaviour and financial situations would require that all app features be flexible and personalisable.

Next steps: The goal-setting, commitment and other features in this idea have the potential to help users take control of their spending. If further research found these features to be effective and to respond to users' needs, organisations could integrate the features into existing or new apps, helping to differentiate these apps from others.

We are seeking a partner to develop and test money management app features that are drawn directly from the relevant academic literature, with the aim of providing rigorous evidence for whether they work.

Figure 14: Wording of stimulus used with focus group

Card Controller app
To override your spending limits reply YES to a text message:

"Hi Dave, your payment at DOMINO'S PIZZA was declined because you have reached your spending limit for takeaways this week. To turn this limit off, reply YES to this message."

Double confirmation required via text message to make a blocked purchase



3.4.3 Cook and Save

Research by MAS has consistently found that many of those who are financially squeezed do not consider themselves to have money management issues, even if they display behaviours that indicate they do.⁷⁵ In light of this, MAS has identified that many in this group may not be open to help that focuses specifically on money management. For these people, we designed a programme to encourage saving through committing to other specific goals – in this case, using a mobile application to support the cooking of low-cost family meals.

The Cook and Save app has several features that leverage behavioural insights, including:

- Helping people to **define an ambitious but realistic savings target and set a deadline**. Evidence suggests that people are more likely to hit their target if it is challenging⁷⁶ and has a clear deadline.⁷⁷
- Guiding people through the steps to **make a plan to achieve their goal** (deciding to look for cheaper alternatives in the supermarket, for example) and **pre-commit** to cooking specific meals on certain days to follow through with that plan.⁷⁸
- **Providing timely reminders** to follow through with planned weekly shops and weeknight meals also helps people to remember and act on their intentions.⁷⁹
- Finally, the app would **automatically transfer the money saved into a separate savings account each month**, which may help people to resist spending the money.⁸⁰

We explored this idea through qualitative research (a series of interviews). Participants already cooked at least three meals a week at home and often more than this. Therefore, new recipe ideas, particularly cheaper ones, were welcomed.

Participants discussed having previously looked for new meal ideas for their families but said the recipes they had found had either included too many or too expensive ingredients. This app, therefore, met a need that they had already identified themselves. The app was not seen as a way for families to make substantial savings: participants estimated that they might save between £10 and £20 per week. They felt that saving a small amount seemed achievable, which would encourage them to stick with using the app:

'Yeah, I think I would be incentivised by the money and I think a lot of people probably in my situation, who are at a loss each month and worrying about money, [would be]. Something to encourage them to do it when they're actually seeing the benefits of it there and then, tangible and real benefits.'

Female, 35, London

To help, participants were keen for the app to indicate a cost per serving. They felt that this would help them manage their food budget better and enable them to calculate what they could save. As they would be saving small amounts, they thought that the money they put aside in this way could be better used as a rainy-day fund, rather than helping them to pay for the lifestyle goals they had outlined.

Next steps: Participants were positive about the idea of using this sort of app to save money through cooking, and further research could build on this idea to take it forward. For example, one next step might be to build a prototype of the app to test with families. This would enable us to understand how this app could be integrated into people's day-to-day lives and the impact it could have on their savings behaviour over time.

3.5 Overcoming taboo and the social aspect of finances

Many people feel a strong social stigma associated with having financial difficulties. Products and services can be designed to both break down that stigma and harness social networks to provide effective peer or expert support that will help people to save and seek financial guidance.

Relevant behavioural insights

The power of relationships

Supportive peers – friends, family, colleagues – can help people to develop positive new behaviours and habits. This was the finding of a BIT trial using 'Study Supporters' to improve further education college students' achievement,⁸¹ breastfeeding support programmes⁸² and peer support programmes in universities that help students commit to revising for exams.⁸³

Social relationships can also help when it comes more specifically to finances. Research has found that asking people to use their social networks to help them with their finances results in increases in loan repayments⁸⁴ and reductions in the likelihood of their spending cash payments right away.⁸⁵

Information avoidance

A recent study found that between 85 per cent and 90 per cent of people would not want to know the date or details of upcoming negative events, such as death or divorce, and hypothesised that this could be driven by a strong desire to avoid feelings of regret.⁸⁶ For less dramatic but still painful events, such as mortgage arrears or other problem debt, the researchers suggested that a wish to avoid feelings of regret could lead people to purposefully avoid information about their situation. This helps to avoid painful feelings now but can store up problems for the future.

Trusted messengers

The influence of a message on our behaviour can vary depending on who delivers the message, and research finds that we often prefer to listen to messengers who we think are similar to ourselves, rather than to those who seem different.⁸⁷ This might explain why peers have a strong influence over our behaviour: we pay attention to our friends because we trust them and know they share some of our preferences and interests. This has a downside, as peer pressure to keep up with friends has been identified by MAS as a key trigger for spending and reduced saving.⁸⁸ However, under the right circumstances, peers can act as trusted messengers who can positively influence our behaviour.

When speaking to individuals from the MAS financially squeezed segment as part of our focus groups and interviews, it was clear that many of them considered money management to be intensely personal and private. For example, participants expressed concerns about co-workers discovering any of their financial information⁸⁹ and found the idea of banks monitoring transaction data on their current accounts uncomfortable.⁹⁰

'They're only supposed to be looking after your money. They're not supposed to be watching what you do with it and then telling you how to use it.'

Female, 34, Birmingham

The idea of other people knowing our financial situation might seem particularly scary if we are just about managing from month to month, as many people in the MAS financially squeezed segment are. The ideas detailed in this section, however, seek to harness the power of social connections in a positive manner, using the depth and responsiveness of human relationships to support better money management.

3.5.1 Savings Supporter

The first idea in this section draws on a successful peer support programme run by BIT, in collaboration with researchers from Harvard University, to improve student retention and success in maths and English.⁹¹ This programme used the idea of a 'Study Supporter', which we adapted for our purposes into a new programme that would encourage people to set savings goals and stick to them by inviting a trusted person to become their 'Savings Supporter'. The idea centres around the supporter engaging with the saver and monitoring their progress towards a savings goal.

Savings Supporter is an idea that could be implemented through a number of channels. Three variations of the idea were developed:

-  **1. Text messages:** The saver and supporter are sent text messages to remind them to have a face-to-face discussion about progress towards the saver's savings goal.
-  **2. Mobile app:** The same as with the text message variation, but the relationship is channelled through a mobile app where the saver records their progress and the supporter receives regular feedback about this progress.
-  **3. Mobile app with banking integration:** The saver can link the app to their current account and savings account, so the supporter receives updates based on the saver's actual saving rates.

We undertook qualitative research (a workshop and interviews) to explore initial reactions to the idea and understand how it might fit into participants' lives, especially in terms of understanding whom they would trust to be their supporter.

Participants felt that peers would help them get into the habit of saving, as they would not want to let their supporter down once they had made a commitment to them. Indeed, some participants had done something similar in the past, asking friends and family to help them cut back on spending. They thought that success was likely to be dependent on the supporters chosen: participants mentioned a range of attributes they would look for in a supporter, such as being empathetic, encouraging, firm and challenging.

The social stigma of speaking about personal finance, especially financial difficulties, was apparent, with many participants citing concerns about sharing financial information with family or friends. We asked participants who agreed to a follow-up interview to go away and try to have an initial discussion with someone they thought might be able to take on the role of their Savings Supporter. In follow-up interviews, many of these concerns were reversed as most participants had had positive experiences of initial discussions with potential Savings Supporters:

'I thought it was going to be embarrassing, but it was fine.'

Female, 36, London

'When I told my friend about it, she was delighted. She said, "Make sure you do it." She thought it was an amazing idea.'

Female, 42, London

Next steps: Our success with the Study Supporter approach in educational settings has the potential to transfer into helpful innovations in financial decision making. We are seeking partners to work with us to develop and test Savings Supporter in the field. We envisage three main opportunities:

- Using text messages or an app, offer Savings Supporter to support saving in a local community, potentially focused around a specific unifying body such as a school or sports club.

- Integrate Savings Supporter prompts as part of a banking app, matching similar customers for mutual support.
- Build Savings Supporter as a chatbot that users could interact with without the need to identify a supporter.

There is the potential through Savings Supporter to build long-term supportive relationships and improve existing ones to help people achieve their savings goals.

3.5.2 Financial Guidance First Aider

A review by HM Treasury and the Financial Conduct Authority of financial advice and guidance markets contained calls from employers and financial services firms for increased provision of financial guidance in the workplace.⁹²

We investigated the possibility of responding to this call through advisers we termed 'Financial Guidance First Aiders' who would provide signposting to independent, impartial financial guidance services from the workplace. These First Aiders would be members of a workplace's human resources (HR) team, available on a confidential basis to any employee. They would be trained to discuss financial goals with employees before suggesting sources of independent, impartial financial guidance to help employees work towards those goals. The existing evidence suggests that this signposting could be particularly effective if it were to coincide with financial changes, such as pay rises, bonuses or promotions.⁹³

We undertook qualitative research (two focus groups and interviews) to understand who might be best placed to become trusted First Aiders, how the scheme might be used and how it could be effectively coordinated.

Participants were positive about the idea of being supported through their workplace to manage their money better:

'I think it could help me, although I am already pretty good at my finances. I think it depends on the goals: if someone is trying to get out of debt, or wants to buy a property, that could help too.'

Male, 29, London

However, there were some challenges. Some participants found it difficult to understand why the First Aider was not directly providing tailored financial advice or guidance, rather than signposting people to free impartial guidance from other sources. Participants were worried about the level of personal financial information they would need to share but were reassured about trust and confidentiality issues when the idea of the First Aider being a member of their HR team was introduced. Participants were also concerned that the First Aider might not have appropriate financial experience, even after being trained for the role:

'I think that it would have to be an intense training on finances. It's someone's life that you're playing with, isn't it?'

Female, 43, Birmingham

Next steps: In the *Financial Advice Markets Review*, employees, employers and the Financial Conduct Authority called for more financial guidance to be provided in the workplace, and the Financial Guidance First Aider idea was a response to this call. The idea was received well by our participants, and through our qualitative research we gathered clear guidance for how to adapt the idea in the next steps of development to make sure that it works for people and gives them what they need.

We are seeking medium and large employers interested in piloting a Financial Guidance First Aider scheme. The pilot would initially focus on providing training and support (developed by the Lab partnership) for First Aiders to enable them to effectively carry out their role in signposting employees to independent, impartial guidance. Development work would then focus on understanding the particular context of each workplace to provide a relevant and helpful service whilst generating insights that could inform wider rollout of Financial Guidance First Aider schemes.

3.6 Rethinking rewards and incentives

Designing financial products and services with emotionally engaging rewards and incentives is likely to make them more attractive, ultimately increasing savings, credit repayments and take-up of financial guidance.

Relevant behavioural insights

Prizes, prize draws and games of chance

Our behaviour is significantly influenced by things that grab our attention, and prize draws can certainly do that.⁹⁴ Large prizes are obviously attractive, and publicising the winners of prize draws can encourage individuals to visualise themselves in that lucky position. This can increase the perceived likelihood of winning and make entry into the draw more appealing.⁹⁵ The motivating effects of prize draws can be harnessed to drive behaviour if, for example, entry into the draw is conditional on carrying out a particular behaviour.⁹⁶

For example, a study in South Africa found that a prize-linked savings programme – in which people can sign up for bank accounts where, instead of reliably accumulating small amounts of interest, they instead go into the draw to win a pooled amount of interest – increased savings by 38 per cent, as people were attracted to the accounts by this potential lottery-style interest win.⁹⁷

Loss aversion

Financial products and services can be designed to harness the behavioural insight that people dislike losses roughly twice as much as they like equivalent gains.⁹⁸ The most famous example of this is the Save More Tomorrow programme, which changed the way in which an increase in pension saving was framed. Instead of presenting the option to increase pension savings as a drop in take-home pay, the programme tied increases in pension saving to future salary increases, reframing the increased savings as slightly reduced increases in take-home pay in the future.⁹⁹

Emotionally engaging rewards and incentives can help to make a product or service more attractive, so people use it or choose it more often. This section focuses on how those same techniques can be used to helping people to manage their money better by driving interest and engagement through rewards and incentives.

3.6.1 Incentivising people to seek help

The first idea in this section is the creation of a prize draw incentive to improve take-up of financial guidance at attention-grabbing and timely moments. This incentive would be offered at key relevant moments – for example, encouraging take-up of pensions guidance when people are approaching retirement.

As a result of the pension freedoms implemented in 2015, people aged 55 or over with defined contribution pensions have more freedom to

choose how they spend their pension savings. To help with decision-making in this complex environment, people in the UK are given access to free and impartial guidance via the phone or face to face through the UK's Pension Wise service. However, take-up of guidance remains low overall. People could be incentivised to engage with Pension Wise by being entered into a lottery conditional upon taking guidance.

We have experimented with variations of the standard 'wake-up' pack to increase engagement with the Pension Wise service. The most successful intervention – a one-page, simple, salient and personalised 'Pension Passport' – led to a tenfold increase in the likelihood of people visiting the Pension Wise website to seek guidance.¹⁰⁰ But this was still only 1 in 10 of the people who received the Pension Passport so there is clearly significant room for improvement. A lottery incentive could be effectively combined with the Pension Passport to increase engagement.



Next steps: We are looking to partner with a pension provider to test how prize draw incentives could help to improve the take-up of financial guidance at key moments, potentially alongside other ideas drawing on behavioural science, such as the Pension Passport. We are also interested in integrating prize linked incentives into the design of other Lab ideas, such as the prize-linked savings option described in the Checkout Savings section on page 34.

3.6.2 Emotionally engaging design features

Across the Lab, we have incorporated emotionally engaging rewards and incentives into our ideas. These are summarised below.

Repay and Save (discussed on page 23)

- **Linking automatic increases in debt repayments and savings to increases in income.** This harnesses loss aversion, ensuring that increases in savings and repayments don't lead to a drop in take-home pay. This design feature was inspired by Save More Tomorrow, where increasing pension contributions automatically when people receive a pay rise or a promotion was highly effective in helping people to save for retirement.¹⁰¹

- **Financial windfall upon transitioning from debt to savings.** Repay and Save includes a financial windfall at the point people transition from debt to savings by halving the first savings payment compared to the last debt repayment. This means that, where somebody has been repaying £100 each month, they will automatically be transitioned to saving £50 each month, resulting in a windfall of £50 at that moment of transition (auto-escalation then works in the same way as for debt repayments). In this way, Repay and Save makes sure that people who have successfully repaid their debts have more cash in the bank from the first month of being debt free, encouraging and reinforcing positive savings behaviour.

Checkout Savings (discussed on page 34)

- **Prize-linked savings.** In our test of the Checkout Savings idea, one of the options offered to participants aimed to strengthen the attractiveness of saving by replacing interest on savings with a cash prize 'jackpot'. This was based on broader research suggesting that prize-linked savings can increase both the number of people saving and savings rates, without encouraging gambling behaviours.¹⁰²

Card Controller (discussed on page 39)

- **Emotionally salient targets.** In the Card Controller app, we suggested using engaging images, such as a picture of a forthcoming holiday destination that is slowly revealed as the person saves.¹⁰³

4 Reflections on the complexity of financial decision-making: backfire effects and ideas that didn't work

The Lab was set up to explore cutting-edge ideas to improve financial capability. We did not anticipate that everything we tested would work, or work exactly as intended. If that had been the case, we might have questioned whether we were being truly innovative. In developing and testing our ideas, we learnt from disappointing results and unexpected backfire effects, as well as from more obvious successes. This section covers three ideas that we do not propose taking forward but that provide valuable insights into the complexities and nuances of financial decision-making.

4.1 Communicating the benefits of complex financial products

Whilst many people intend to save money each month, there is often a gap between intention and action.¹⁰⁴ Setting up a regular standing order to automatically move money from a current account to a savings account may help people to close this gap and build up a savings buffer. However, for those with volatile income and expenses, a traditional standing order based on transferring a fixed amount each month may not be appropriate. Indeed, it may worsen their financial position if it leads to their current account balance going into an unplanned overdraft, incurring additional fees.

We tested two mechanisms to enable people to automatically transfer an affordable, flexible amount from their current account to their savings account each month:

- 1. Transferring a percentage of monthly income.** This approach enables people to automatically save more as they earn more. It can also flex to enable them to save less where they have lower income in any given month.
- 2. Transferring a percentage of the account balance on a particular day.** This approach enables people to automatically save more when their account balance is higher. It can also flex to enable them to save less when their balance is lower, whilst avoiding any unplanned overdrafts.

We ran an online experiment to investigate whether participants were able to identify whether a fixed standing order or an alternative flexible standing order was the best option to maximise their savings in a given scenario. Participants found it significantly more difficult to work out when flexible standing orders were the best option (see Figure 15).

We also offered participants the option of accessing extra information to help them understand the benefits of each standing order. Roughly 90 per cent of participants did not access any additional information.

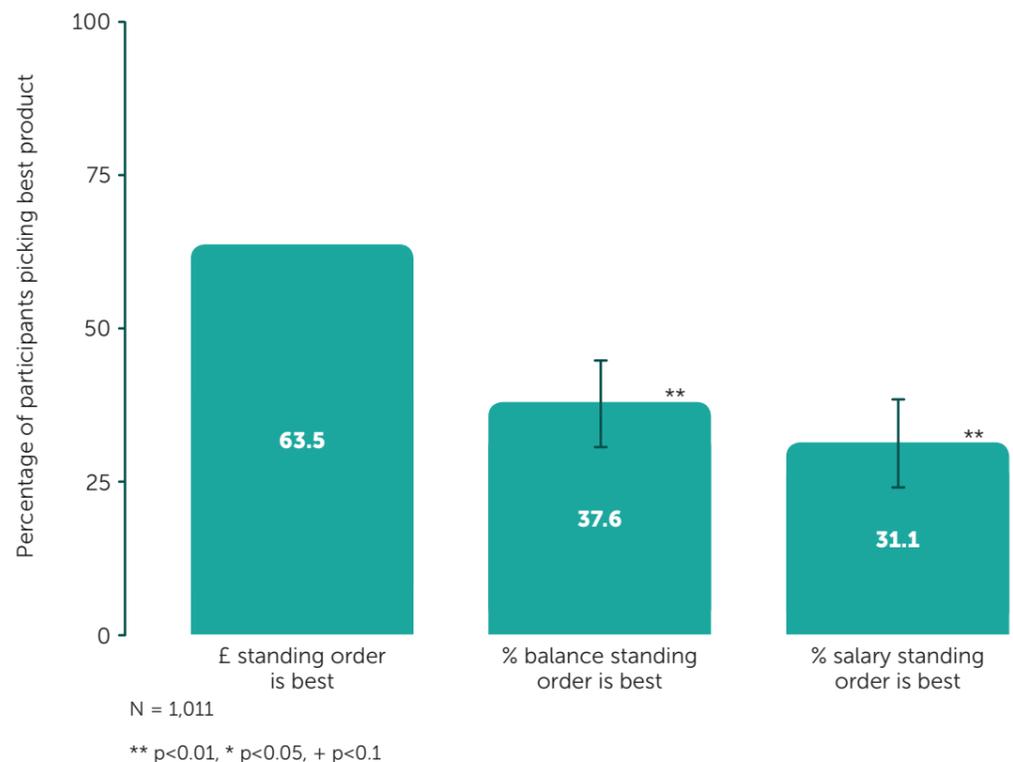
Reflections and possible next steps:

Overall, these results suggest that there are clear barriers to implementing flexible standing orders. Lack of understanding of percentages is likely to be a barrier for many potential account holders in identifying the best option for them.

Although we are not proposing taking this idea forward with the Lab, we see two possible next steps for organisations wishing to develop their own flexible standing orders. The first is to

explore whether there are more effective ways to explain flexible standing orders, building on findings in other Lab tests and academic literature on expressing percentages as whole figures.¹⁰⁵ The second is to use transaction level data to identify those customers who have high volatility in their income or expenses and who may benefit from a flexible standing order to help them build up a savings buffer. The product could then be developed and offered in a targeted manner to those it is most likely to help.

Figure 15: Proportion of participants picking the best option



4.2 Updating beliefs about the probability of experiencing financial shocks

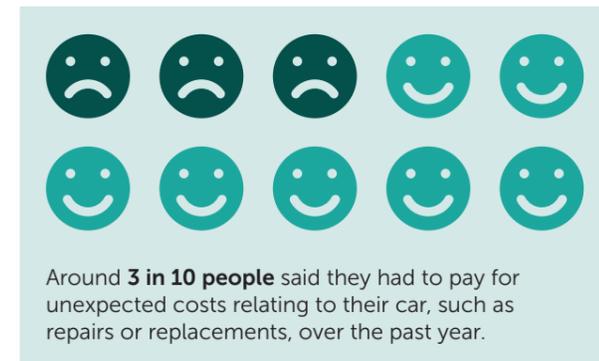
Research by MAS shows that 70 per cent of people experience an unexpected and costly event each year.¹⁰⁶ The high probability of experiencing a financial shock, such as an unexpected car, glasses or technology repair bill, should be a strong motivation to save for a rainy day. However, optimism bias may mean that people mistakenly believe that costly events, such as their boiler breaking down, are less likely to happen to them than they actually are.¹⁰⁷

In the Lab, we set out to investigate two aspects of this idea. The first was how accurate people's beliefs are about the probability of experiencing a financial shock. The second was whether it was possible to update beliefs to overcome optimism bias or any other issues that could lead to an underestimation of this probability. The ambition was to test interventions that could link into financial guidance and/or products to encourage people to update their beliefs about the probability of financial shocks.

We measured beliefs about the future by asking participants to place small bets (using money provided to them as part of the experiment) on the probability of needing to repair or replace a car, a mobile phone or a pair of glasses over the next month and the next three months.

The participants were randomly allocated to three groups:

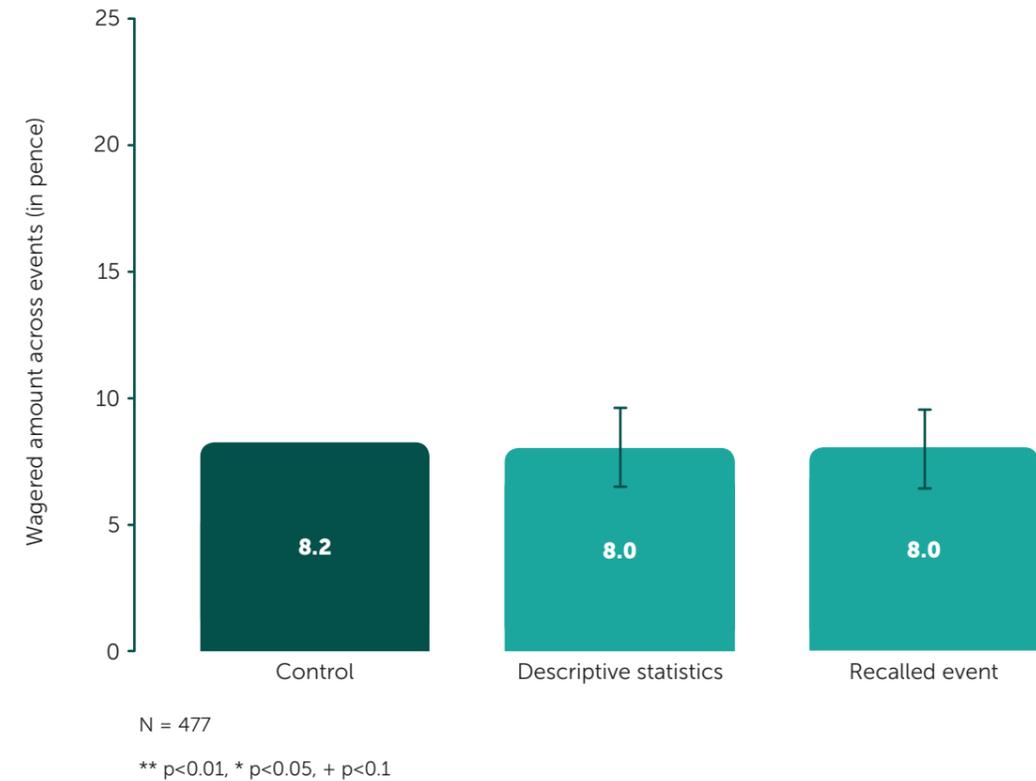
1. A **control group** was not shown any material before being asked to bet on the probability of these three events occurring.
2. In the second group, participants were given an **infographic showing the self-reported incidence of a range of financial shocks**. Smiley and sad faces were used to represent the relative probabilities, drawing on research showing that people can process information better when it is presented with visual aids as opposed to when it is expressed as numerical probabilities.¹⁰⁸



3. In the third group, participants were **asked to think about the last time they or their household had experienced a financial shock** and write down what had happened, when it had happened, how much it had cost and how it had made them feel. Being able to easily recall a previous example may mean participants are more likely to believe that an unanticipated event will happen to them in the following one or three months.¹⁰⁹

Neither of the interventions significantly changed the amount that participants bet, and this was true for both of the time periods (one month and three months) (see Figure 16).

Figure 16: Amount bet on one of the three events happening (needing to repair or replace a car, a mobile phone or a pair of glasses), averaged across both one and three months

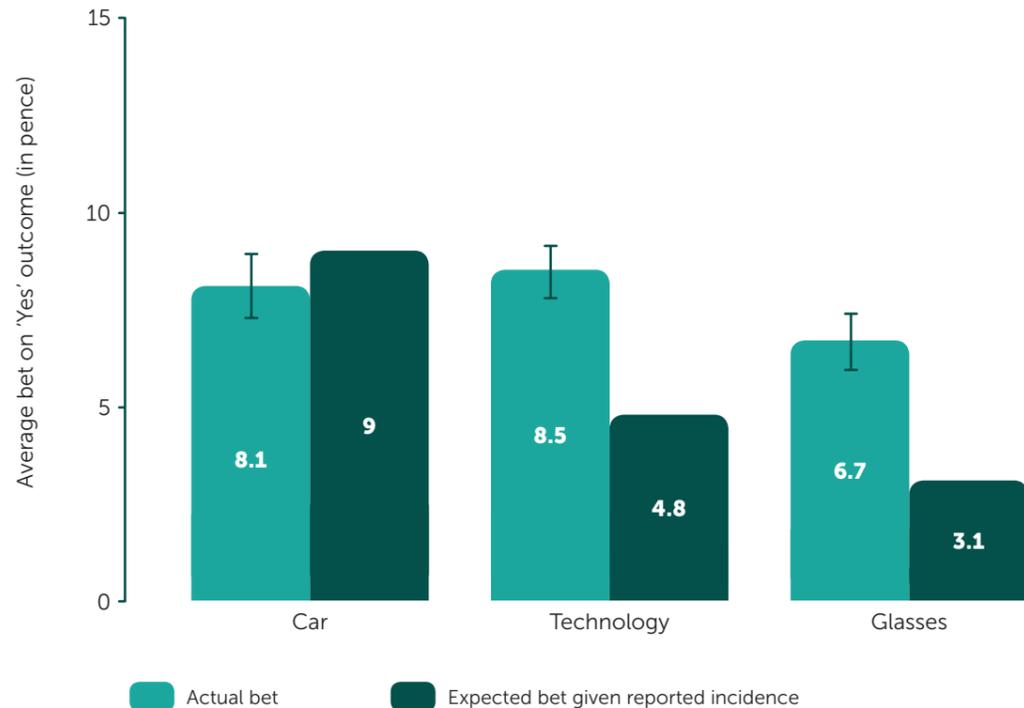


We then followed up with participants at one and three months to ask whether they had in fact experienced any of these events. Interestingly, the results of our follow-up did not support the existing evidence suggesting that people are systematically overoptimistic about whether unanticipated and costly events will happen to them.¹¹⁰

The reported incidence of car breakdowns was not significantly different from that suggested by the bets of participants. For glasses and phone repairs, on average, our participants overestimated the

probability of these events happening in their initial bets, compared to their reports on whether the events happened (see Figure 17).

Figure 17: Comparison of average bets on events compared to reported incidence of their events after one month



Reflections and possible next steps:

This is initial, exploratory research about how accurate people are in their beliefs about experiencing financial shocks. To our surprise, we found that, when prompted, people either accurately estimated or overestimated the probability of financial shocks rather than underestimating them. Some of this may be driven by the test drawing the attention of our participants to financial shocks, which is unfortunately likely to happen with any intervention that asks people to think about 'unanticipated' events.

We may not have observed any belief updating due to two factors: firstly, our interventions were relatively light-touch, and secondly, the beliefs of our participants turned out to be well calibrated on one of the events, so not much updating was possible or necessary. Further research could explore whether similar results are found if the experiment is repeated in another experimental setting, such as a public space, and whether the results hold for a broader range of financial shocks.

Further research is also required to explore the link between well-calibrated beliefs and motivation (and ultimately action) to save for a rainy day, which was not tested here. Specifically, further work could explore whether beliefs could be better calibrated through more intensive interventions that have a stronger link to savings. For example, we could use transaction-level data to bundle unexpected costs together and then prompt people to consider this spending as one category or 'mental account'.¹¹¹ This may help individuals to accurately budget and save for unanticipated costs. It may also be worth exploring the extent to which beliefs about positive but unexpected and costly events (such as paying for a son or daughter's wedding) are well calibrated. If these events are more motivational for savers then it may be worth considering interventions based on these events.

4.3 The role of planning tools and reminders where decisions are made under pressure

People in the financially squeezed segment can be stretched for both money and time due to demands from their jobs and families. Time and money pressures can focus us on tasks that are directly in front of us, causing us to neglect other important tasks that are less salient or require us to think about the future. Behavioural scientists call this effect 'tunnelling'.¹¹² We tested whether simple plans¹¹³ and reminders could help people to make longer-term financial decisions that would reduce the overall cost of their borrowing (specifically, repaying above the minimum amount) without requiring significant additional investments of time or attention.

In 2012, a series of experiments were published testing how people made decisions when operating under situations of scarcity and pressure, related to time, money or other resources.¹¹⁴ One of the experiments was based on the popular game show *Family Fortunes*. We developed a new experiment by adapting the original design of the *Family Fortunes* experiment. Our experiment tested whether implementation intentions (simple plans that follow the structure 'If X happens then I will do Y'¹¹⁵) and reminders could help participants to repay higher amounts when under time and resource pressure.

Participants faced a series of *Family Fortunes*-style questions (for example, 'Name something that usually breaks when you drop it') and were given a limited amount of time to answer. Participants received a point for each guess that was one of the top five most common answers in our survey of 100 people. We incentivised participants to perform well by giving them more money the more points they scored.

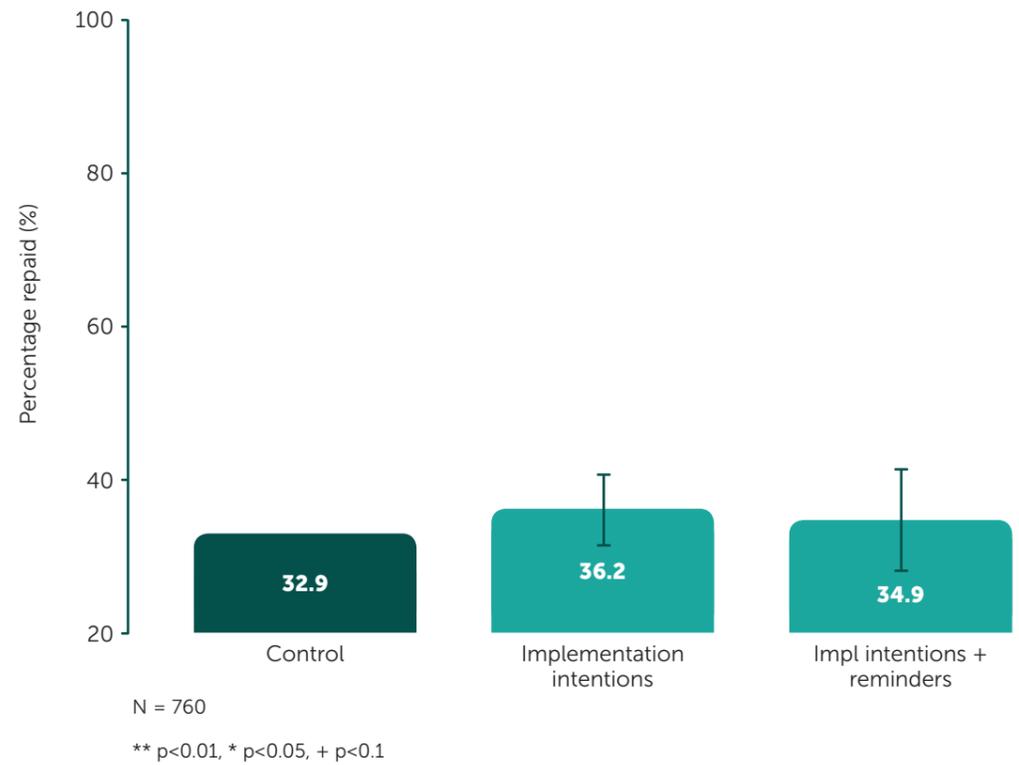
The experiment simulated some of the regular borrowing and repayment decisions consumers may face when they use credit card products. To try to score more points in our experiment, participants could borrow extra time to make more guesses about which answers might be in the top five most common responses. As with a credit card product, borrowing had to be repaid. We recorded the performance of participants in the game (how many points they scored) and their average repayments as a proportion of any extra seconds they borrowed as part of the game.

To test whether planning tools would increase total scores and repayment levels within the game, participants were randomly allocated to one of three groups:

- A **control group** where participants could score points and borrow time. Repayment of borrowed time was required at the end of each round of questions.
- A treatment group where, before they started the main game, participants **made a simple plan (an implementation intention) for repayment** of any time they might borrow.
- A second treatment group where, before they started the main game, participants **made a simple plan** (like the participants did in the second group) and additionally **received a reminder of their plan** when they came to make repayment decisions.

In this experiment, simple plans (with and without reminders) were not effective in increasing relative repayments of debt (seconds borrowed within the test) or helping people to score more points. We saw a small but not significant increase in average payments as a proportion of overall debt (see Figure 18).

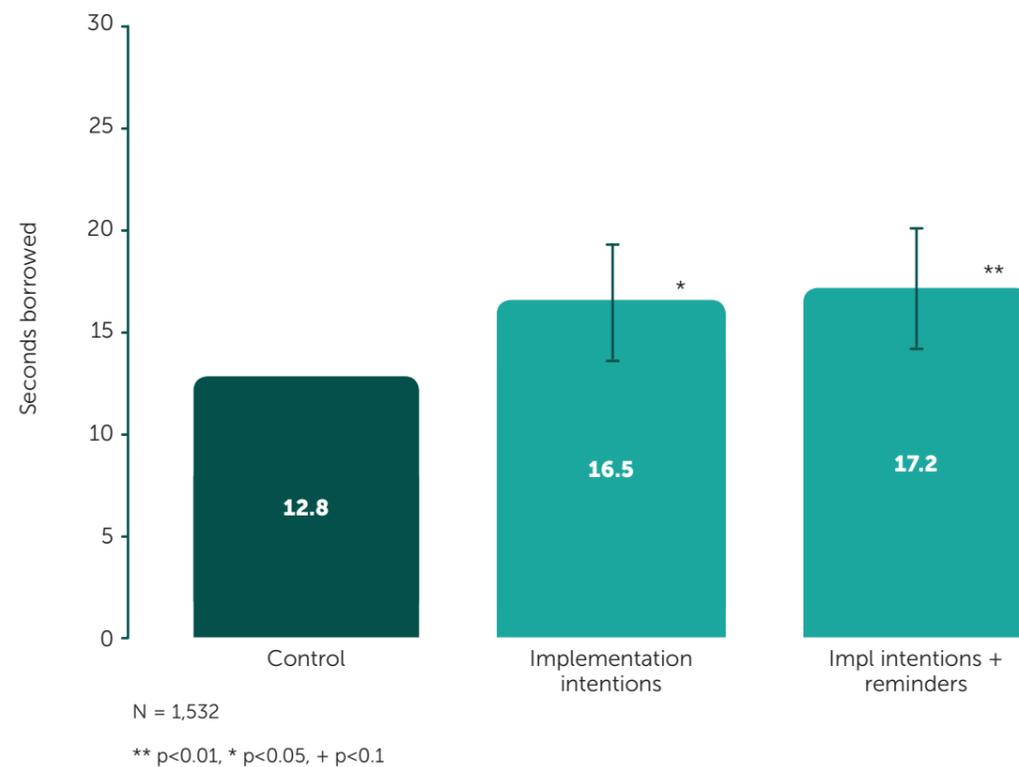
Figure 18: Average payments as a proportion of overall debt



Participants in our treatment groups borrowed 29-34 per cent more than those in the control group (see Figure 19). Participants in the treatment groups did repay more than those in the control group, but

this was because they borrowed more on average; they did not repay a higher proportion of their debt overall.

Figure 19: The effects of the treatments on total time borrowed



Finally, the majority of participants who made an implementation intention concerning how much they would repay each round did not choose to repay more than the minimum amount. There was a significant and positive relationship between participants setting a higher repayment

commitment and then repaying a higher amount. Further research would be required, however, to establish whether setting a higher repayment commitment actually causes participants to make higher repayments.

Reflections and possible next steps:

Whilst the suggestion to make a plan was designed to increase the salience of repayment choices, it may also have increased the salience of the option to borrow. It is important to note, however, that any real-world application of this intervention would likely be as part of a wider credit journey where the consumer would have already decided to borrow. In this scenario, the implementation intention only focused on repayment decisions.

There is strong evidence for the usefulness of simple plans or implementation intentions in a number of areas, such as helping people to make sure they attend appointments or job interviews. However, the specific environment in which we make a choice, and the presentation of it, can have a large effect on our decisions. Borrowing and repayment decisions are complex, and, whilst simple plans and reminders for repayment may still be appropriate for financial decisions, further research is required into where in the customer journey this may be effective.



5 Numeracy and financial decision-making

A person's numeracy level has a fundamental influence on their ability to make the best financial decisions for themselves. For example, work on US mortgage borrowers who took out loans in 2006 and 2007 found that those with lower numerical ability were significantly more likely to default on their loans.¹¹⁶ Other work has found a significant correlation between financial literacy, which is dependent on numeracy, and the likelihood of incurring high fees on credit and using high-cost borrowing options.¹¹⁷ Poor financial behaviours do arise from poor financial literacy, but in addition poor financial behaviours could also be correlated with things like procrastination,¹¹⁸ which affects financial decisions, and a lack of comprehension around financial products and advice.¹¹⁹

5.1 Why test numeracy?

There were two aims in measuring basic numeracy in the Lab. First and most importantly, it allowed us to test whether certain approaches, particularly around the simplification of information, can benefit individuals with lower numeracy levels. Having this more nuanced view helps in designing effective interventions for implementation in the field. Second, it further increased our understanding of the correlation between numeracy level and various

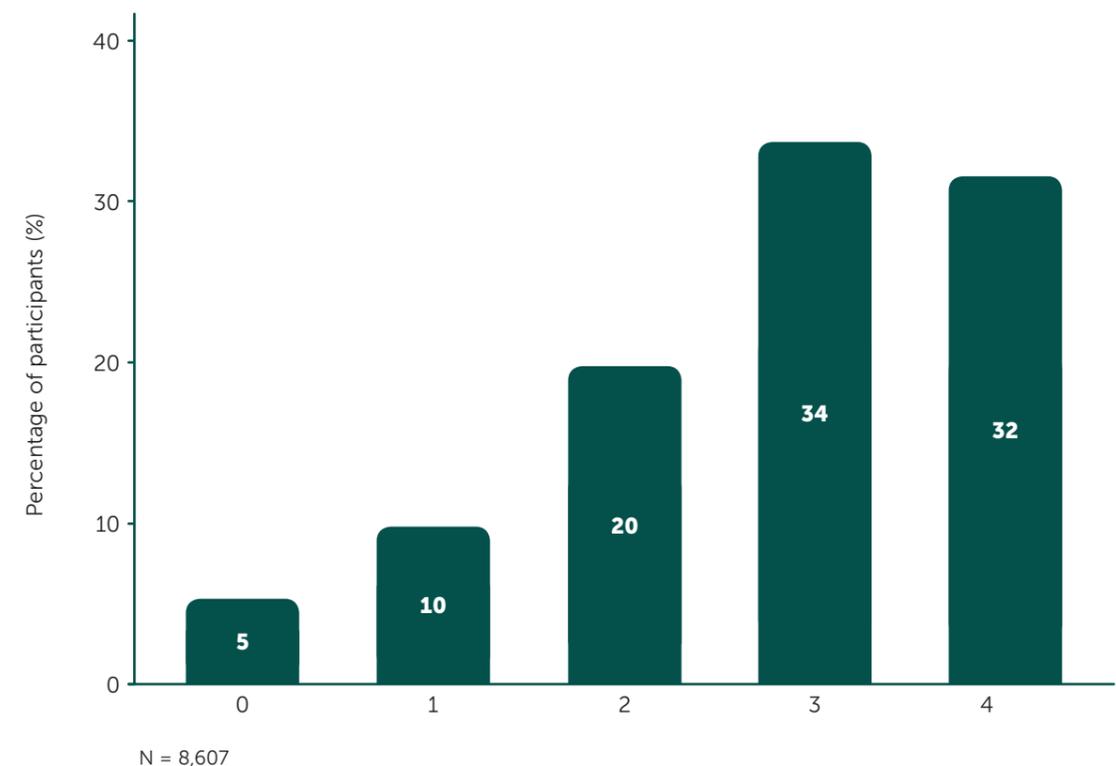
outcomes of interest in the context of financial decision-making. Since our experiments are conducted online, it is straightforward to include a numeracy measure at the end of a test. This allows us to generate data on numeracy and decisions across a range of projects, using a large and fairly representative sample.¹²⁰

5.2 How we tested numeracy in the Lab

We assessed numeracy using a short questionnaire consisting of four items, which were drawn from questions previously asked by National Numeracy and MAS. These questions were included in seven online experiments that we conducted as part of the Lab's work.¹²¹ This means that for each

experiment we can connect a person's numeracy score with outcomes related to financial decision-making, which was the main focus of the tests. Figure 20 summarises the numeracy scores of our participants.

Figure 20: Distribution of numeracy scores across the tests of the Lab (0 = lowest and 4 = highest)



5.3 Numeracy results across the tests

We found that numeracy was significantly correlated with the outcome of interest in each test. For example, individuals with a higher numeracy score more often correctly identified a savings product that built the most savings given a certain profile of income and expenses, and they were also more likely to choose a credit card that minimised

cost from debt when transferring a balance. We also found that in credit simulations (used in the ideas Increasing Credit Card Repayments and Scarcity and Planning), individuals with a higher numeracy score made significantly higher debt repayments. See Table 1 for a summary.

Table 1: Correlation between numeracy and the main outcome variable across key outcomes in the Lab

Outcome of interest	Interpretation
Comprehension of savings product	Individuals with a higher numeracy score more often chose the best savings product given a certain profile of income and expenses.
Beliefs about the occurrence of unexpected costs	Individuals with a higher numeracy score placed lower bets on events with unexpected costs (for example, car repair) happening compared to individuals with higher numeracy, meaning that they reported that those events were less likely to happen. ¹²²
Savings	Individuals with a higher numeracy score less often chose to automatically bank savings when accumulating discounts on a grocery shop.
Debt repayment (two separate tests)	Individuals with a higher numeracy score repaid more (in £) on outstanding credit card debt and a greater percentage of outstanding debt.
Credit card choice	Individuals with a higher numeracy score more often chose an optimal credit card for transferring a balance.
Comprehension of credit product (two separate tests)	Individuals with a higher numeracy score had a better understanding of a credit card's fees and charges.

These results support the notion that individuals with higher numeracy levels make better financial decisions, as indicated by higher comprehension of credit and savings products as well as higher repayments on outstanding debt.¹²³ For example, the difference in the proportion of people choosing the best savings product (Figure 21) between those with the highest and lowest numeracy scores was 17 percentage points. For average debt repayments (Figure 22), individuals with the highest numeracy score repaid, on average, 18 percentage points more than those with the lowest numeracy score.

Figure 21: Numeracy score and proportion of individuals choosing the best savings product

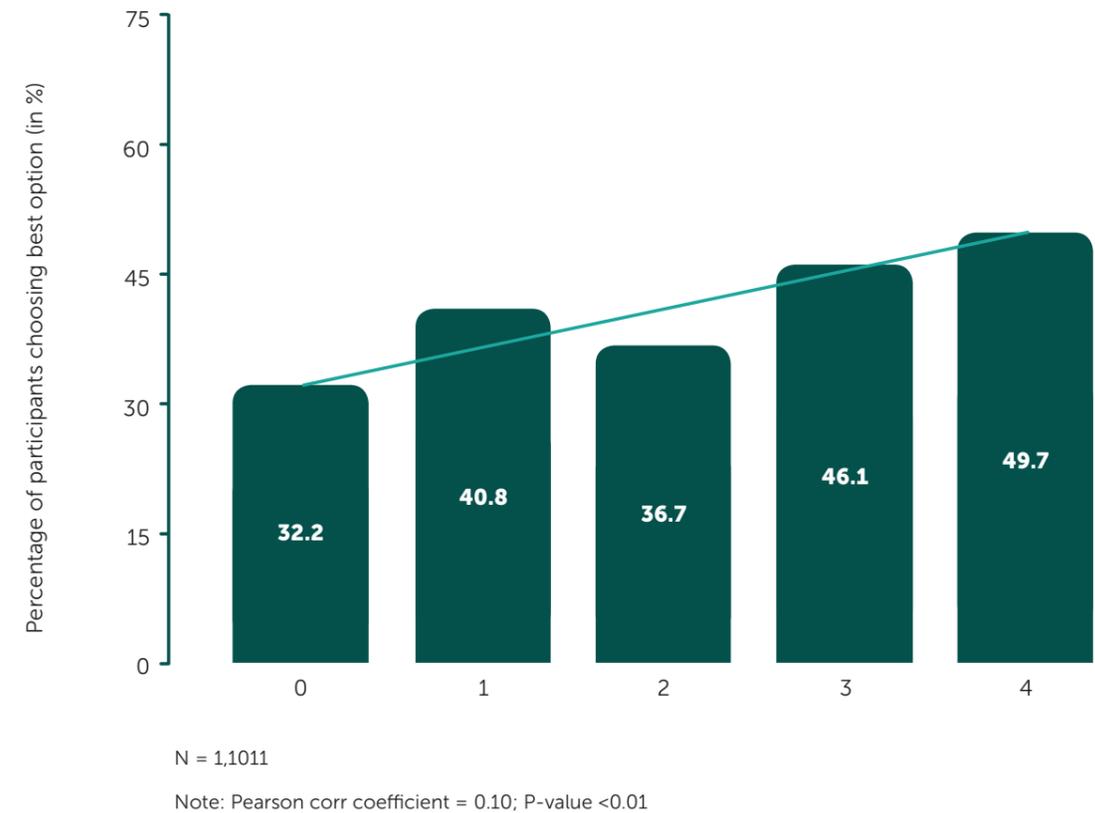
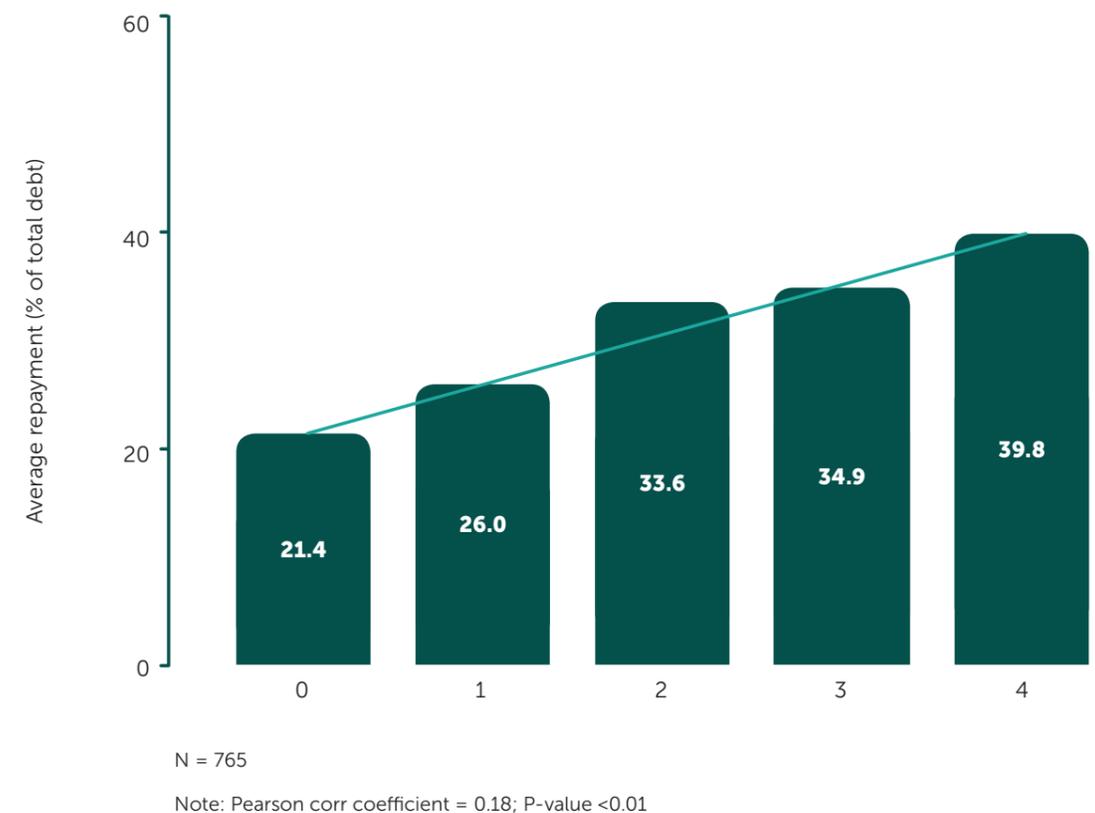


Figure 22: Numeracy score and proportion of individuals choosing to repay debt at higher levels



Two tests show correlations that are less straightforward to interpret. First, in Expect the Unexpected (see page 52), we found that individuals with higher numeracy scores placed lower bets on a rainy-day event happening compared to individuals with low numeracy scores, meaning that they reported that these events were less likely to happen. However, in the follow-up tests, we found that the reported outcomes were most closely aligned with the predictions of higher-numeracy individuals, which suggests that those predictions were more accurate. Second, in the Checkout Savings test (see page 34), we found that higher-numeracy individuals allocated less money to savings when prompted. It is possible that this effect was driven by the specific context of the test (banking a very small amount of savings during a grocery shop).

Overall, these results reinforce findings from previous work that numeracy level is an important driver of financial decision-making. We worked with the charity National Numeracy to ensure our numeracy measures were appropriate – our results support the position that numeracy is crucial to financial capability. In addition to reinforcing how important work to improve numeracy is, our results also suggest that simplifying the way financial information is presented, for example presenting plain numbers rather than percentages, could also have a significant positive impact by allowing people with differing levels of numeracy to engage. Where our ideas resulted in positive outcomes for participants, we found this to be the case at all levels of numeracy. In all except one case, higher levels of numeracy also correlated with more positive outcomes (higher repayments or higher comprehension, for example).

6 What's next for the Lab?



The combined work of the Lab and the wider What Works Fund is the largest programme of research about what works to improve financial capability and money management ever conducted in the UK. In the Lab, we have worked with experts from business, academia, the third sector and government to come up with innovative ideas for applying behavioural insights to financial capability.

We have tested the most promising of these ideas in the Lab, aiming to provide proof-of-concept evidence for what works wherever possible. We have a range of evidence from online experiments, qualitative research and reviews of the behavioural science literature. Some of the early results are far more positive than we could have hoped for.

Nonetheless, so far these tests have only been conducted in a laboratory environment and we achieve nothing by stopping at proof of concept. The next step is to take the most successful ideas out of the Lab and into the field. This means building a coalition of partners to help us develop the ideas. We aim to run field pilots with spenders, savers and those repaying their debts. Our objective is that these field trials will provide partners with the necessary evidence to take a board-level decision to take Lab ideas to market as products and services available to all.

The Financial Capability Lab offers:

- leading expertise in behavioural insights and financial capability,
- innovative, behaviourally informed solutions tested in the Lab, and
- a partnership approach for piloting these in the field.

Partners will benefit from the research we have already conducted in the Lab. In addition MAS has funding and resources available to support the development, design and evaluation of field pilots. We will work intensively with partners to develop and adjust the ideas to work for the particular environments in which each partner operates, including combining ideas if this is beneficial. We are aiming for four to six field pilots, launching as many as possible in 2018.

Pilot partners will need to commit the internal resources to work with us and agree to publish results. We have been delighted by the breadth and depth of interest from financial institutions, government, and financial and technology companies so far. We are looking forward to continuing and deepening those conversations with the aim of helping citizens in all parts of the UK to access behaviourally informed products and services designed to improve their financial capability.

Get in touch with us to hear more.

We are looking for delivery partners who:

- can work with us to pilot these with real people in a real context
- believe in aligning social impact and commercial goals, and
- are committed to sharing evidence about what works.

In the below table we have listed the ideas we are prioritising for discussions on partnerships. Some ideas are already being taken forward, for example Nest Pensions, Harvard University and MAS are collaborating on fieldwork for the Sidecar Account:

Priority ideas for partnership discussions	Type of test	Next steps	Page number
Building savings			
Checkout Savings Timely prompts to save at online or physical checkouts	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	34
Savings Supporter Saving using the power of social connections	Qualitative research (a workshop and follow up interviews).	Actively seeking partners for fieldwork.	44
Getting help			
Guidance That Is Right On Time Using transaction data to offer guidance at useful and salient moments	Qualitative research (two focus groups and interviews).	Actively seeking partners for fieldwork.	36
Managing credit			
Repay and Save Helping people with unsecured debt by consolidating, accelerating repayment and then making the transition to saving easy and attractive	Qualitative research (two focus groups and interviews).	Actively seeking partners for fieldwork.	23
Increasing Credit Card Repayments Changing repayment interfaces to help people to repay more than the minimum amount	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	21
Improving Price Comparison Websites Making behaviourally informed additions to PCW interfaces.	Online experiment using Predictiv.	Actively seeking partners for fieldwork.	30

Endnotes

- 1 Money Advice Service. (2015, October). *Financial Capability Strategy for the UK*. Retrieved 24 April 2018 from https://www.fincap.org.uk/uk_strategy.
- 2 Detail available at Money Advice Service. (2018). What Works Fund. Retrieved 28 March 2018 from www.fincap.org.uk/what-works-fund.
- 3 Money Advice Service. (2016). *The squeezed segment*. Retrieved 24 April 2018 from https://masassets.blob.core.windows.net/cms/files/000/000/468/original/The_Squeezed_Segment_MAS.pdf.
- 4 Money Advice Service. (2016, March). *Market segmentation: An overview*. Retrieved 24 April 2018 from https://masassets.blob.core.windows.net/cms/files/000/000/568/original/Market_Segmentation_report_An_overview.PDF.
- 5 Money Advice Service. (2016). *The squeezed segment*.
- 6 Money Advice Service. (2017). *Right place, right time: Helping people with their finances when they need it most*. Retrieved 24 April 2018 from https://masassets.blob.core.windows.net/cms/files/000/000/847/original/Right_Place__Right_Time_%281%29_%28November_2017%29.pdf.
- 7 Money Advice Service. (2016). *The squeezed segment*.
- 8 Money Advice Service. (2016). *The squeezed segment*.
- 9 Money Advice Service. (2016). *Closing the savings gap*. Retrieved 24 April 2018 from https://masassets.blob.core.windows.net/cms/files/000/000/548/original/MAS_Savings_Report_Sept_2016_FINAL.pdf.
- 10 Citizens Advice. (2015). *The four advice gaps*. Retrieved 24 April 2018 from <https://www.citizensadvice.org.uk/Global/CitizensAdvice/Debt%20and%20Money%20Publications/Fouradvicegaps.pdf>.
- 11 Money Advice Service. (2017). *Right place, right time: Helping people with their finances when they need it most*.
- 12 Money Advice Service. (2016). *The squeezed segment*.
- 13 Money Advice Service. (2016, March). *Market segmentation: An overview*.
- 14 Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65(3), 272–292.
- 15 Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(Suppl. 1), S164–S187.
- 16 Jachimowicz, J. M., Duncan, S., & Weber, E. U. (2016). Default-rejection: The hidden cost of defaults. Retrieved 28 March 2018 from <https://ssrn.com/abstract=2727301>.
- 17 Pensions Regulator. (2018, 13 February). *Automatic enrolment: Declaration of compliance report*. Retrieved 24 April 2018 from <http://www.thepensionsregulator.gov.uk/docs/automatic-enrolment-declaration-of-compliance-monthly-report.pdf>.
- 18 Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science* (n.s.), 185(4157), 1124–1131 at p. 1128.
- 19 Financial Conduct Authority. (2016, July). *Credit card market study: Final findings report*. Retrieved 28 March 2018 from <https://www.fca.org.uk/publication/market-studies/ms14-6-3-credit-card-market-study-final-findings-report.pdf>; Keys, B. J., & Wang, J. (2016). *Minimum payments and debt paydown in consumer credit cards* (Report No. w22742). National Bureau of Economic Research; Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, 20(1), 39–41.
- 20 Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, 20(1), 39–41 at p. 40
- 21 Benartzi, S., & Thaler, R. H. (2013). *Behavioral economics and the retirement savings crisis*. *Science*, 339(6124), 1152–1153.
- 22 Pensions Regulator. (2018, 13 February). *Automatic enrolment: Declaration of compliance report*.
- 23 The minimum repayment is designed so that even if credit card holders only make this minimum repayment each month, a small part (1 per cent) of their debt will still be paid off each month in addition to any charges or fees incurred. 'A firm must set the minimum required repayment under a regulated credit agreement for a credit card or a store card at an amount equal to at least that amount which repays the interest, fees and charges that have been applied to the customer's account, plus one percentage of the amount outstanding.' Financial Conduct Authority. (2018). *Handbook*. Retrieved 28 March 2018 from <https://www.handbook.fca.org.uk/handbook/CONC/6/7.html>.
- 24 Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, 20(1), 39–41.
- 25 This experiment had two stages: a hypothetical choice about what participants would do if they were in the scenario described in the experiment, and an incentivised stage where we paid participants based on their ability to find the correct repayment amount (what they 'should' do).
- 26 Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights*. Retrieved 28 March 2018 from http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf; Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives*, 5(1), 193–206.
- 27 Auto-escalation for repayments has been proposed in the USA but not linked to a workplace consolidation loan. Karlan, D. S., & Zinman, J. (2012). *Borrow less tomorrow: Behavioral approaches to debt reduction* (Working Paper). Chestnut Hill, MA: Center for Retirement Research.
- 28 Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–292.
- 29 Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(Suppl. 1), S164–S187.
- 30 Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65(3), 272–292.
- 31 A quarter of these households have no savings at all and the average amongst those who do is £580. Money Advice Service. (2016). *The squeezed segment*.
- 32 Luck, S. J., & Vogel, E. K. (1997). The capacity of visual working memory for features and conjunctions. *Nature*, 390(6657), 279.
- 33 Czech, S. (2016). Choice overload paradox and public policy design: The case of Swedish pension system. *Equilibrium*, 11(3), 559–584.
- 34 Behavioural Insights Team. (2017, October). *Improving engagement with pension decisions: The results from three randomised controlled trials*. Retrieved 24 April 2018 from <http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2017/10/Pension-wise-trials.pdf>.
- 35 UK Cards Association. (2012, 1 July). *Credit card summary box*. Retrieved 28 March 2018 from http://www.theukcardsassociation.org.uk/wm_documents/Credit%20Card%20Summary%20Box%20Final%20Version%20%28July%202012%29.pdf.
- 36 Which? Press Office. (2015, 22 September). '0%' balance transfers misleading consumers. Retrieved 28 March 2018 from <https://press.which.co.uk/whichpressreleases/0-balance-transfers-misleading-consumers>.
- 37 Hastings, J. S., & Tejada-Ashton, L. (2008). *Financial literacy, information, and demand elasticity: Survey and experimental evidence from Mexico* (Report No. w14538). National Bureau of Economic Research; Lacko, J. M., & Pappalardo, J. K. (2010). The failure and promise of mandated consumer mortgage disclosures: Evidence from qualitative interviews and a controlled experiment with mortgage borrowers. *American Economic Review*, 100(2), 516–521.
- 38 Elshout, M., Elsen, M., Leenheer, J., Loos, M., & Luzak, J. (2016). Study on consumers' attitudes towards terms and conditions (T&Cs). Retrieved 28 March 2018 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2847546.
- 39 Bateman, H., Louviere, J., & Thorp, S. (2014). Understanding how consumers make financial choices: A cross-disciplinary learning exercise. In T. Harrison & H. Estelami (Eds.), *The Routledge Companion to Financial Services Marketing*, pp. 62–77. Abingdon, UK: Routledge.
- 40 Competition and Markets Authority. (2017, September). *Digital comparison tools market study*. Retrieved 24 April 2018 from <https://assets.publishing.service.gov.uk/media/59c93546e5274a77468120d6/digital-comparison-tools-market-study-final-report.pdf>.
- 41 Grubb, M. D. (2015). Overconfident consumers in the marketplace. *Journal of Economic Perspectives*, 29(4), 9–36.
- 42 Shui, H., & Ausubel, L. (2004). *Time inconsistency in the credit card market*. Retrieved 24 April 2018 from <https://pdfs.semanticscholar.org/a6e3/d841e960666adc8e32a8bc2a3bc4d1446db6.pdf>; Financial Conduct Authority. (2016, July). *Credit card market study: Final findings report*.
- 43 Financial Conduct Authority. (2016, July). *Credit card market study: Final findings report*.
- 44 Financial Conduct Authority. (2016, July). *Credit card market study: Final findings report*.
- 45 Financial Conduct Authority. (2016, July). *Credit card market study: Final findings report*; Keys, B. J., & Wang, J. (2016). *Minimum payments and debt paydown in consumer credit cards* (Report No. w22742). National Bureau of Economic Research; Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, 20(1), 39–41.
- 46 Experimental research on credit decision-making has shown that consumers make trade-offs between monthly repayment amount, total cost and loan duration, and that total cost information is more important to individuals than interest rate information. See Ranyard, R., Hinkley, L., Williamson, J., & McHugh, S. (2006). The role of mental accounting in consumer credit decision processes. *Journal of Economic Psychology*, 27(4), 571–588
- 47 Sliders have also been shown to help consumers understand the cost of borrowing. See Citizens Advice. (2016). *Payday loans after the cap*. Retrieved 24 April 2018 from <https://www.citizensadvice.org.uk/Global/CitizensAdvice/Debt%20and%20Money%20Publications/Payday%20Loan%20Report%202.pdf>. We also found that sliders helped participants to make better credit card repayment decisions, as part of our 'Understanding Credit Cards Better' trial. The repayment sliders in this experiment were designed to help people avoid excessive interest charges whilst conforming to current regulatory requirements.
- 48 Frydman, C., & Camerer, C. F. (2016). The psychology and neuroscience of financial decision making. *Trends in Cognitive Sciences*, 20(9), 661–675; Financial Conduct Authority. (2016 July). *Credit card market study: Final findings report*.
- 49 Desimone, R., & Duncan, J. (1995). Neural mechanisms of selective visual attention. *Annual Review of Neuroscience*, 18(1), 193–222.
- 50 Behavioural Insights Team. (2017, October). *Improving engagement with pension decisions: The results from three randomised controlled trials*.
- 51 Madrian, B. C. (2012). *Matching contributions and savings outcomes: A behavioral economics perspective* (Report No. w18220). National Bureau of Economic Research.
- 52 Thompson, S., Michaelson, J., Abdallah, S., Johnson, V., Morris, D., Riley, K., & Simms, A. (2011). 'Moments of change' as opportunities for influencing behaviour: A report to the Department for Environment, Food and Rural Affairs. London, UK: Defra. Retrieved 24 April 2018 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/60539/BIT_FraudErrorDebt_accessible.pdf.
- 53 Behavioural Insights Team. (2012). *Applying behavioural insights to reduce fraud, debt and error*.
- 54 When people are on holiday, a decision may be driven by a narrower bracketing, so people 'fail to integrate the consequences of many similar decisions into their judgments'. Simonsohn, U., & Gino, F. (2013). Daily horizons: Evidence of narrow bracketing in judgments from 9,000 MBA admission interviews. *Psychological Science*, 24, 219–224.
- 55 Read, D., Loewenstein, G., & Rabin, M. (1999). Choice bracketing. *Journal of Risk and Uncertainty*, 19(1), 171–197.
- 56 Choi, J. J., Haisley, E., Kurkoski, J., & Massey, C. (2012). *Small cues change savings choices* (Report No. w17843). National Bureau of Economic Research.
- 57 Andreoni, J., Kuhn, M. A., & Sprenger, C. (2015). Measuring time preferences: A comparison of experimental methods. *Journal of Economic Behavior & Organization*, 116, 451–464.
- 58 Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics*, 112(2), 443–478.
- 59 Money Advice Service. (2017). *Right place, right time: Helping people with their finances when they need it most*.
- 60 UK Government. (2018). What to do after someone dies. Retrieved 28 March 2018 from <https://www.gov.uk/after-a-death/organisations-you-need-to-contact-and-tell-us-once>.
- 61 Dolan, P., Hallsworth, M., Halpern, D., King, D., & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour through public policy*. London, UK: Cabinet Office.
- 62 Soman, D., & Zhao, M. (2011). The fewer the better: Number of goals and savings behavior. *Journal of Marketing Research*, 48(6), 944–957.
- 63 Gollwitzer, P. M. (1999, July). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54(7), 493–503.
- 64 Bryan, G., Karlan, D., & Nelson, S. (2010). Commitment devices. *Annual Review of Economics*, 2(1), 671–698.
- 65 Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics*, 112(2), 443–478.
- 66 Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights* at pp. 9–18.
- 67 Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2011). Using implementation intentions prompts to enhance influenza vaccination rates. *Proceedings of the National Academy of Sciences*, 108(26), 10415–10420; Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2012). *Following through on good intentions: The power of planning prompts* (Working Paper No. 17995). National Bureau of Economic Research.
- 68 Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the top of mind: How reminders increase saving. *Management Science*, 62(12), 3393–3411.
- 69 Bryan, G., Karlan, D., & Nelson, S. (2010). Commitment devices. *Annual Review of Economics*, 2(1), 671–698.

- 70 Kivetz, R., Urminsky, O., & Zheng, Y. (2006). The goal-gradient hypothesis resurrected: Purchase acceleration, illusionary goal progress, and customer retention. *Journal of Marketing Research*, 43, 39–58.
- 71 Brune, L., Gine, X., Goldberg, J., & Yang, D. (2016). *Commitments to save: A field experiment in rural Malawi* (Policy Research Working Paper No. 5748). World Bank.
- 72 Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights* at pp. 9–18.
- 73 Dolan, P., Hallsworth, M., Halpern, D., King, D., & Vlaev, I. (2010). *MINDSPACE: Influencing behaviour through public policy*. London, UK: Cabinet Office.
- 74 Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the top of mind: How reminders increase saving. *Management Science*, 62(12), 3393–3411.
- 75 Money Advice Service. (2016). *The squeezed segment*.
- 76 Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–771.
- 77 Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: Self-control by precommitment. *Psychological Science*, 13(3), 219–224; Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in Experimental Psychology*, 38, 69–119.
- 78 See, for example, the job centre trials in Behavioural Insights Team. (2015). *The Behavioural Insights Team update 2013–2015*. Retrieved 28 March 2018 from <http://www.behaviouralinsights.co.uk/publications/the-behavioural-insights-team-update-report-2013-2015>.
- 79 Hallsworth, M., Beery, D., Sanders, M., Sallis, A., King, D., Vlaev, I., & Darzi, A. (2015). Stating appointment costs in SMS reminders reduces missed hospital appointments: Findings from two randomised controlled trials. *PLOS ONE*, 10(10), e0141461; Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2014). Getting to the top of mind: How reminders increase saving. *Management Science*, 62(12), 3393–3411.
- 80 Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12, 183–206.
- 81 Sanders, M., & Groot, B. (2017, 21 April). Introducing promptable: A BI Venture. Behavioural Insights Team. Retrieved 28 March 2018 from <http://www.behaviouralinsights.co.uk/uncategorized/introducing-promptable-a-bi-venture>.
- 82 Dowling, S., & Evans, D. (2013). *Breastfeeding peer support in Wiltshire: An evaluation*. University of West England. Retrieved 24 April 2018 from <http://eprints.uwe.ac.uk/21983/5/Breastfeeding%20peer%20support%20in%20Wiltshire%20an%20evaluation%20-%20Dowling%20and%20Evans%20October%202014.pdf>.
- 83 Scott, K. (2012). *Enhancing student support: Peer support report*. Edinburgh University Students' Association. Retrieved 24 April 2018 from http://www.docs.hss.ed.ac.uk/iad/Learning_teaching/Academic_pastoral/Peer_support_toolkit/Enhancing_Student_Support_Peer_Support_Report.pdf.
- 84 Karlan, D. S. (2007). Social connections and group banking. *Economic Journal*, 117(517), F52–F84.
- 85 Ashraf, N. (2009). Spousal control and intra-household decision making: An experimental study in the Philippines. *American Economic Review*, 99(4), 1245–1277.
- 86 Data from Germany and Spain. Gigerenzer, G., & Garcia-Retamero, R. (2017). Cassandra's regret: The psychology of not wanting to know. *Psychological Review*, 124(2), 179–196.
- 87 Durantini, M., Albarracín, D., Mitchell, A., Earl, A., & Gillette, J. (2006). Conceptualizing the influence of social agents of behavior change: A meta-analysis of the effectiveness of HIV-prevention interventionists for different groups. *Psychological Bulletin*, 132, 212–248; Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation*, 15, 192–238; Sapienza, P., & Zingales, L. (2012). A trust crisis. *International Review of Finance*, 12(2), 123–131.
- 88 Money Advice Service. (2016). *The squeezed segment*.
- 89 This was part of the 'Financial Guidance First Aider' idea, detailed further in this section.
- 90 This quote is from our 'Guidance That Is Right On Time' work, detailed in the section below.
- 91 Behavioural Insights Team. (2018, February). Retention and success in maths and English: *A practitioner guide to applying behavioural insights*. Retrieved 24 April 2018 from <http://38r8om2xjhl25mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2018/03/ASK-guide-27-Feb-2.pdf>.
- 92 HM Treasury & Financial Conduct Authority. (2016, March). *Financial advice markets review: Final report*. Retrieved 24 April 2018 from <https://www.fca.org.uk/publication/corporate/famr-final-report.pdf>.
- 93 Thompson, S., Michaelson, J., Abdallah, S., Johnson, V., Morris, D., Riley, K., & Simms, A. (2011). *'Moments of change' as opportunities for influencing behaviour: A report to the Department for Environment, Food and Rural Affairs*. London, UK: Defra.
- 94 Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights*.
- 95 Fooker, J., Hemmelgarn, T., & Herrmann, B. (2015). *Improving VAT compliance: Random awards for tax compliance* (Working Paper No. 51). Directorate General Taxation / Customs Union, European Commission; Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127(2), 267–286.
- 96 Dutta, R., & Lord, S. (2017, 7 February). Using prize draws as incentives. Behavioural Insights Team. Retrieved 28 March 2018 from <http://www.behaviouralinsights.co.uk/uncategorized/using-prize-draws-as-an-incentive>; Filiz-Ozbay, E., Guryan, J., Hyndman, K., Kearney, M., & Ozbay, E. Y. (2015). Do lottery payments induce savings behavior? Evidence from the lab. *Journal of Public Economics*, 126, 1–24; Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127(2), 267–286.
- 97 Cole, S. A., Iverson, B. C., & Tufano, P. (2014). *Can gambling increase savings? Empirical evidence on prize-linked savings accounts* (Working Paper 2014-10). Said Business School.
- 98 Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453–458; Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent mode. *Quarterly Journal of Economics*, 106(4), 1039–1061.
- 99 Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(Suppl. 1), S164–S187.
- 100 Behavioural Insights Team. (2017, October). *Improving engagement with pension decisions: The results from three randomised controlled trials*.
- 101 Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(Suppl. 1), S164–S187. Auto-escalation for repayments has been proposed in the USA but not linked to a workplace consolidation loan: Karlan, D. S., & Zinman, J. (2012). *Borrow less tomorrow: Behavioral approaches to debt reduction* (Working Paper). Chestnut Hill, MA: Center for Retirement Research.
- 102 Cole, S. A., Iverson, B. C., & Tufano, P. (2014). *Can gambling increase savings? Empirical evidence on prize-linked savings accounts* (Working Paper 2014-10). Said Business School; Kearney, M. S., Tufano, P., Guryan, J., & Hurst, E. (2010). *Making savers winners: An overview of prize-linked savings products* (Working Paper No. w16433). National Bureau of Economic Research.
- 103 Soman, D., & Cheema, A. (2011). Earmarking and partitioning: Increasing saving by low-income households. *Journal of Marketing Research*, 48(Suppl.), S14–S22.
- 104 Van Hooft, E. A. J., Born, M. Ph., Taris, T. W., Van der Flier, H., & Blonk, R. W. B. (2005). Bridging the gap between intentions and behavior: Implementation intentions, action control, and procrastination. *Journal of Vocational Behavior*, 66(2), 238–256.
- 105 Frydman, C., & Camerer, C. F. (2016). The psychology and neuroscience of financial decision making. *Trends in Cognitive Sciences*, 20(9), 661–675.
- 106 Money Advice Service. (2016, September). *Closing the savings gap*.
- 107 Camerer, C., & Lovallo, D. (1999). Overconfidence and excess entry: An experimental approach. *American Economic Review*, 89(1), 306–318; Malmendier, U., & Tate, G. C. E. O. (2005). Overconfidence and corporate investment. *Journal of Finance*, 60(6), 2661–2700; Sharot, T. (2011). The optimism bias. *Current Biology*, 21(23), R941–R945.
- 108 Spiegelhalter, D. (2017). Risk and uncertainty communication. *Annual Review of Statistics and Its Application*, 4(1), 31–60.
- 109 Schwarz, N., Bless, H., Strack, F., Klump, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, 61(2), 195–202.
- 110 Of the participants, 73 per cent (699) returned for the first follow-up at one month after the initial experiment and 22 per cent (213) for the second follow-up at three months after the experiment. This means that, although there are results for the second follow-up, we can only point to trends in the data and have not included these results in this summary.
- 111 Mental accounting is a behavioural economics finding that people tend to categorise money into separate 'pots' such as a holiday fund and a utility bills fund. Even if they do not have enough money for utility bills in one month, many people are still highly unlikely to use money they have categorised as a 'holiday fund' to pay their utility bills despite the money being freely available in their bank account. See Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199–214.
- 112 Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science*, 338(6107), 682–685.
- 113 Gollwitzer, P. M. (1999, July). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54(7), 493–503.
- 114 Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science*, 338(6107), 682–685.
- 115 Gollwitzer, P. M. (1999, July). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54(7), 493–503.
- 116 Gerardi, K., Goette, L., & Meier, S. (2013). Numerical ability predicts mortgage default. *Proceedings of the National Academy of Sciences*, 110(28), 11267–11271.
- 117 Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics and Finance*, 14(4), 332–368.
- 118 Petrova, D., Garcia-Retamero, R., Catena, A., Cokely, E., Carrasco, A. H., Moreno, A. A., & Hernández, J. A. R. (2016). Numeracy predicts risk of pre-hospital decision delay: A retrospective study of acute coronary syndrome survival. *Annals of Behavioral Medicine*, 51(2), 292–306.
- 119 Frydman, C., & Camerer, C. F. (2016). The psychology and neuroscience of financial decision making. *Trends in Cognitive Sciences*, 20(9), 661–675.
- 120 The total participant pool in the UK covers approximately 200,000 individuals who are roughly representative of the general UK population based on gender and age, although the sample is skewed towards individuals with lower incomes.
- 121 The basic numeracy check was absent in the Sidecar Account test.
- 122 In follow-up tests, we found that reported outcomes were more closely aligned with predictions of higher-numeracy individuals, which suggests that they are more accurate.
- 123 In our credit simulations, individuals were given the same starting endowment, so it is not the case that resources in the test differed between individuals with high and low numeracy.





THE
BEHAVIOURAL
INSIGHTS TEAM



Ipsos MORI
Social Research Institute