



42

FREEDOM AND CHOICE IN PENSIONS: A BEHAVIOURAL PERSPECTIVE



Association of British Insurers

ideas 

About ideas42

ideas42 is a non-profit behavioural design and consulting firm that uses behavioural science to help solve difficult social problems and have impact at scale. We grew out of research programs in psychology and economics at top academic institutions. As such, our work draws on decades of experimental scientific research in decision-making and the most rigorous methods in program and policy evaluation. Find out more at www.ideas42.org.

Acknowledgements

ideas42 would like to thank all of the individuals and industry leaders that took time to share their expertise and contribute insights that helped to inform this report. Specifically, we would like to thank Chris Brooks (Age UK), Pete Cottingham and Tim Fassam (Prudential), Michelle Cracknell (The Pensions Advisory Service), Debbie Harrison (Pensions Institute), Stefan Hunt (Financial Conduct Authority), Tim Jones (National Employment Savings Trust), Tom McPhail (Hargreaves Lansdown), Alistair McQueen (Aviva) and Caroline Rookes (Money Advice Service) for providing their invaluable perspectives to inform the report. Finally, we would like to express our gratitude to Huw Evans and his team at the ABI for giving us the opportunity to contribute to this important debate, and for working with us to shape the report and its recommendations. In particular, we would like to thank Yvonne Braun, Rob Yuille, and Joe Ahern for their invaluable contributions.

Foreword

Behavioural science has become a very popular concept in the debate about how best to shape public policy and regulation in long-term savings, with auto enrolment in pensions the most famous example.

But whilst paying lip service to behavioural science has become something of a cliché, real in-depth analyses of how to use it as a tool to improve decision-making, especially for long-term financial decisions, are rare. This is why we are delighted to have worked with ideas42 on how insights from the science of decision-making and behaviour can help industry, government and regulators respond to the new pension freedoms.

The new freedoms will radically shake up the retirement landscape, with consumers having much more choice and more complex decisions to make. But as the report highlights, making far-reaching decisions about the future is intellectually, psychologically and emotionally challenging, which can lead to suboptimal choices. The report offers practical, on the ground suggestions for how all stakeholders can support consumers making these decisions by creating an environment that helps to overcome our cognitive constraints, informed by interviews with stakeholders in industry, regulators, academia, and civil society.

The report should be a “must read” for all who want to make the new pension freedoms a success.

Yvonne Braun

Director, Long Term Savings Policy, ABI

CONTENTS

- 1 Executive Summary
 - 5 Introduction
 - 7 Chapter 1: The Behavioural Elements of Retirement Planning
 - 10 Chapter 2: Misperception
 - 15 Chapter 3: Time
 - 20 Chapter 4: Presentation of Choice
 - 25 Chapter 5: Is Age Nothing But a Number?
 - 27 Chapter 6: Recommendations and Remedies
 - 32 Conclusion
-

Executive summary

INTRODUCTION

In April 2015 the pensions market in the UK will undergo a dramatic change, with vastly increased freedoms for holders of defined contribution (DC) pensions. While many people are likely to benefit from these changes, there is a significant risk that many people will make decisions that are not in their own best interests, especially for the long term. The Treasury's efforts to provide free, impartial guidance to pension holders to try and mitigate these risks are welcome, but may not be enough.

The goal of this report is to use insights from the study of decision-making and behaviour to inform how industry, government, and regulators respond to the forthcoming changes. The analysis gives us a rich understanding of the behavioural biases that can shape people's decisions, and – crucially - what elements of the decision-making environment can exacerbate or mitigate them. Armed with these understandings, we can identify ways to reduce the negative impact of these behaviours and the “bottlenecks” they lead to.

Making far reaching decisions now about the distant future is intellectually, psychologically and emotionally challenging. Once we factor in the many trade-offs involved, the hugely complex sets of options, and the lingering distrust in pensions from previous mis-selling episodes, we find ourselves with a perfect storm of cognitive constraints. It is our hope that this report and its findings can provide a guiding light through that storm.

THE BEHAVIOURAL ELEMENTS OF RETIREMENT PLANNING

When we think about decision-making, we often think about it as a single, linear process in which people weigh up the pros and cons of the various options before making a choice. Indeed, this ability to systematically process information in order to reach the best possible decision is the assumption that traditional economics rests on.

However, in real life our decision-making process is often much less straightforward – particularly when it comes to complex decisions like planning for retirement. In the current retirement income market, we see evidence that consumers:

- Are disengaged from the process, leading to a lack of understanding and last minute decisions made under pressure.
- Fail to shop around properly - if they shop around at all.
- Do not seek guidance or advice, even when it could be in their best interests to do so.
- Choose a suboptimal product when they do make a decision – for example by sticking with their current provider when a higher income is available elsewhere, and rejecting viable options out of hand.

While human behaviour is hard to predict, we know enough about how people work in the real world to be confident of seeing consumers behave in the following ways when the reforms come into effect:

- Not taking up the offer of Pension Wise guidance.
- Making decisions on the basis of unreliable information.
- Withdrawing large sums from their DC pot and not re-investing it sensibly.
- Falling prey to scams and aggressive marketing.

THE ROLE OF MISPERCEPTION, TIME AND PRESENTATION OF CHOICE

One of the primary reasons behind this deviation from the traditional economic model is that a variety of psychological biases can interact with contextual factors to affect decision-making. These biases include those associated with how we perceive ourselves and the world around us. We see how:

- The challenges associated with planning for retirement can cause us to avoid thinking about it until the last minute.
- We are often overconfident in our ability to manage money wisely.
- We unknowingly rely on faulty heuristics to inform our decisions, and misunderstand probabilities as a result.
- Our behaviour is often influenced by how we think other people like us behave.

Our actions and decisions can also be shaped by how we relate to time. Here, we see how people:

- Show time inconsistent preferences, and are unable to relate to their future selves, resulting in seemingly short-term decisions.
- Let small hassles get in the way of reaping large benefits, and fall foul of the planning fallacy.

We can also be affected by how choices are presented to us. For example, we:

- Become overwhelmed when presented with too many options or large amounts of information, leading to bad decisions or no decisions at all.
- Find it difficult to compare options when they have features that are not alignable, or when the options are presented to us one after the other rather than at the same time.
- Show a tendency to stick with the status quo, and frequently favour the default option.

IS AGE NOTHING BUT A NUMBER?

While the behavioural biases we identify are generally considered to be universal among humans, research finds that there are two aspects of aging that can lead older people to be more prone to certain types of biases.

As we get older, we increasingly behave in ways that maintain positive emotions and avoid negative emotions. We also show signs of having reduced cognitive capacity. This can lead older people to:

- Seek less information when making decisions as a way of minimizing the negative emotions associated with making difficult choices.
- Show a tendency to focus on one or two key alignable features of a choice, rather than taking on the difficult or impossible task of determining likely benefits across multiple, potentially nonalignable features.
- Become more likely to choose an option when it is framed as a gain rather than a loss.
- Struggle to incorporate new information into existing knowledge structures, resulting in them relying more on automatic, rather than deliberative, processes when making decisions.

RECOMMENDATIONS AND REMEDIES

Our behavioural analysis points us towards the steps that should be taken to increase the likelihood that people will:

1. Engage early in retirement planning;
2. Shop around and gather accurate information; and
3. Make an appropriate decision.

However, because human behaviour is so hard to predict, and small details can have a disproportionate effect on behaviour, we recommend testing these interventions before scaling them up. Wherever possible this should involve using randomised controlled trials (RCTs) - the most reliable way of determining efficacy. User testing is also an important part of behavioural design and should be used extensively. The recommendations we offer in this report are therefore the first stage of an on-going process to identify the most effective ways to help people make better decisions.

THE KEY RECOMMENDATIONS INCLUDE:

- Fostering engagement with retirement planning at an earlier stage, for example by:
 - Prompting people who have been automatically enrolled into a pension scheme to make a choice about the level of their contributions every year throughout their working lives through schemes such as Save More Tomorrow.
 - Using employers as a channel through which to provide timely and salient prompts to encourage their employees to engage in retirement planning early.
 - Having pension providers send a shorter, less intimidating communication before the full wake-up pack to ease people into the planning process, including a checklist that sets out the steps involved in making a well-informed decision.
 - Building on the ABI's existing Code of Conduct on Retirement Choices to create a more behaviourally informed wake-up pack that reduces information overload and mitigates fear and apprehension.
- Maximising uptake of Pension Wise guidance, for example by:
 - Clearly signposting people towards the service at age 55 or at a later age based on the best available evidence once the reforms come into force, by sending personalised letters with planning tools.
 - Making it as easy as possible to schedule and attend a Pension Wise appointment
 - Providing timely reminders once an appointment is scheduled.
- Ensuring content of Pension Wise guidance is behaviourally informed, for example by:
 - Drawing on the latest research about what works in financial education and continually testing and refining the approach.
 - Mitigating fear and minimising the threat to someone's self-efficacy by ensuring that interactions are friendly in tone, and take into account the apprehension and decision-paralysis that can ensue if one is hit by a large amount of information that is difficult to comprehend.
 - Encouraging connection with one's future self, for example thorough step-by-step consideration of likely expenses and providing personal accounts from people with similar personal and financial situations.
- Facilitating a more user-friendly search process, for example by:
 - Developing enhanced cross-industry standards to categorise product offerings in order to make comparison easier.
 - Reducing ambiguity around sources of guidance by creating an independently run audit system in which providers of information on pensions are given a 'seal of approval' if they meet the required standards of transparency and quality of information.

- Countering the risk of scams and aggressive marketing by deploying more intensive engagement with the cohort that will gain immediate access in April 2015, including greater efforts to encourage them to access Pension Wise advice.
- Reducing the likelihood that people will succumb to present bias by introducing cool-off periods or additional steps when people seek to withdraw more than a certain proportion of their pot – either in one go or through sequential withdrawals of smaller amounts.
- Being cognisant of what the ‘default’ option is for consumers who either take no action at all with regard to their DC pension pot, or who simply follow the ‘path of least resistance’ and opt for the easiest option.

CONCLUSION

The forthcoming changes to the retirement income market will create more choice and flexibility for holders of DC pensions. There is real potential for people to benefit from these reforms, but we must proceed with caution. The prevalence of powerful behavioural biases - combined with the particular context in which people are making decisions about their pension – could stand in the way of them reaching their desired retirement goals and have a negative effect on the functioning of the market.

While we can do little to change the way people’s minds work, there is much we can do to change the environment in which they are making decisions. The goal of any such changes should be to either:

1. Maximise the likelihood that people will follow-through on their good intentions, for example taking up the offer of Pension Wise guidance or conducting a proper search.
2. De-bias the decision-making environment as far as possible in order to reduce the chances that people will make decisions based on faulty heuristics or our tendency to be biased towards the present.

This report considers concrete actions that could be taken to try and increase the likelihood that people engage early in retirement planning; shop around and gather accurate information; and make the best possible decisions in their own best interest.

However, while the solutions that we recommend are based on the science of decision-making and our understanding of the retirement income market, they are not designed to be definitive or exhaustive. This is because human behaviour is complex, hard to predict, and hugely dependent on context. Much more work would need to be done to identify specific behavioural problems and diagnose the contextual and psychological features contributing to these problems before we can be confident what the best remedies might be. We also need careful monitoring of actual behaviour (not just reported behaviour), as well as rigorous, on-going testing to determine which behavioural interventions are most effective.

We hope this report will provide a solid basis with which to underpin this important work.

Introduction

In April 2015 the pensions market in the UK will undergo a dramatic change. Rather than the majority of retirees effectively having to buy an annuity as a result of strict tax rules, the large and growing number of people with defined contribution (DC) pensions will be able to withdraw their savings from age 55, subject only to the marginal rate of income tax. While many people are likely to benefit from this increased freedom, there are significant risks. In this new market of greater flexibility and more complex options, will people choose wisely?

These risks have been recognised by the Treasury, which has committed to providing DC pension holders with access to free, impartial guidance, in the form of a new service called Pension Wise. The guidance will be available online, over the telephone and face-to-face, with the Citizens Advice Bureau (CAB) delivering the face to face guidance sessions, the Pensions Advisory Service (TPAS) the telephone channel, and the Government being responsible for the online service. While these moves are to be welcomed, concerns remain about whether this service alone will be enough to prevent people making suboptimal decisions.

And the stakes are high. For some people, the retirement choices they make could mean the difference between a comfortable old age with foreign holidays and nice presents for the grandkids, or counting every penny and worrying about how to stay warm over the winter. This will become increasingly true as the number of people with DC pensions – and the size of their pots – increases as a result of auto enrolment.

Of course, any debate about improving retirement outcomes requires a value judgment about what is “good”. For the individual, this is highly personal and will change over time. In this report, we consider it to be an informed decision that the person is happy with, and in line with their long-term interests. A good outcome for society is likely to mean a sustainable income that promotes wellbeing and participation in society, without an increased burden on the state in the form of benefits, social care, and other support.

THE PSYCHOLOGY OF RETIREMENT PLANNING

The goal of this report is to contribute to the debate about how industry, government, and regulators should respond to the forthcoming changes by providing a deeper understanding of the psychological and contextual factors that could affect decisions and actions in the new pensions market.

In doing this, we draw on what we know about how people behave in the current retirement income market. Already, there is evidence that people approaching retirement might be failing to choose the best option for them. For example, people often report being overwhelmed with the vast amounts of information they’re faced with, and leave it to the last minute to make a decision. Many people stick with the annuity offered by their current provider, despite a higher income being offered elsewhere.

While these sorts of suboptimal behaviours are commonplace in the retirement income market, they are also evident in many other areas of our lives. Contrary to the traditional economist’s assumption that we carefully weigh all available options and make optimal decisions, real humans often fall prey to behavioural biases that can get in the way of making the right choice.

We see this in nearly all aspects of our lives. Consider the low take-up rates for free flu vaccines, expensive gym memberships that go virtually unused, or the millions of people who stick with their existing energy provider despite better deals being on offer elsewhere. And of course we are all familiar with the problem of people failing to start saving for retirement early enough in their working lives, leaving their future selves to face difficult trade-offs when they retire.

So does this mean that we are all incurably irrational, lazy or lack good judgement? Absolutely not: these behavioural biases stem from the quick, intuitive thinking humans have developed to help us navigate a complex and information-rich world. And while these mental shortcuts, or 'biases', are often essential in helping us make choices on the fly, they can sometimes misguide us. They might prevent us from following through on our intentions, or making the decision that produces the best outcome in terms of our long-term health, happiness or financial wellbeing.

One of the challenges for those of us seeking to get a deeper understanding of what drives behaviour is that many of these biases are automatic. This leads us to misinterpret the reasons behind a particular decision we've made, falsely attributing some kind of logic to it when in fact it was often the result of unconscious biases. We are also very bad at predicting how we will behave in the future: today I am absolutely sure that I am going to go for a run before work tomorrow morning, but when the time comes my desire to get an extra hour's sleep overrides that intention. These quirks in our mental processes highlight the limitations of the consumer surveys that analyses of behaviour in the pensions market are often based on.

Thankfully, we have other tools at our disposal. Huge advances in the science of decision-making over recent decades allow us to understand much more about how these biases work, and – crucially – what elements of the decision-making environment can exacerbate or mitigate them. For example, we know that people are more likely to stick with the status quo than make a change; that their perception of risk is often based on the salience of information rather than an assessment of all of the facts; and that their decisions can be unknowingly influenced by the behaviour of others.

Armed with these understandings, we can identify ways to reduce the negative impact of these behaviours and the “bottlenecks” they lead to.

THE PATH FORWARD

We begin this report by setting out the behavioural elements of retirement income planning, focussing on how the actions and decisions that consumers should take in order to achieve the best possible outcome can sometimes go awry.

We then move on to look at some of the biases that are likely to come into play when people make decisions about retirement, and how they might interact with the decision-making context. Because these biases are both numerous and varied, we have categorised them into three groups:

1. Misperception
2. Time
3. Presentation of Choice

Once we have explored these biases, we take a moment in Chapter 5 to look at whether aging could have an impact on how they play out. We then move on in Chapter 6 to explore some of the steps that could be taken to help overcome the behavioural bottlenecks we have identified.

It is hard to overstate the importance of examining the retirement options market through a behavioural lens. Making far reaching decisions now about the distant future is intellectually, psychologically and emotionally challenging. Once we factor in the many trade-offs involved, the hugely complex sets of options, and the lingering distrust in pensions from previous mis-selling episodes, we find ourselves with a perfect storm of cognitive constraints. It is our hope that this report and its findings can provide a guiding light through that storm.

Chapter 1: The behavioural elements of retirement planning

When we think about decision-making, we often think about it as a single, linear process in which people weigh up the pros and cons of the various options before reaching a conclusion. In terms of retirement income, this means individuals would engage early in the retirement planning process, shop around and gather accurate information, and then finally make an appropriate decision based on their personal situation. Indeed, this ability to systematically and logically process information in order to reach the best possible decision is the assumption that traditional economics – and therefore much of our public policy – rests on.

However, in real life our decision-making process is often much less straightforward. In fact, when it comes to complex decisions like how to fund our retirement, it can sometimes become very messy indeed. There are multiple decision and action points at which it can be derailed leading to suboptimal decisions or, in some cases, no decision at all.

In this chapter we look at how people's actual behaviour in the retirement income market differs from this traditional economic model, and draw on this to predict the behaviours we might see once the reforms have been enacted.

LACK OF ENGAGEMENT

In an ideal world, planning for retirement would be almost a lifelong process, starting with setting aside money from your first job, and ending with sufficient income to fund a comfortable retirement. But in reality, people are often completely disengaged from the process and rarely turn their attention to their retirement income until much closer to retirement age. Research has demonstrated that among individuals with DC pots who were planning to retire and use them as a source of income within the next two years, very few even knew how these DC pensions worked, and just as few were interested in learning. Additionally, individuals rarely knew how much money was in their DC pot, or how much they could expect to receive as income in retirement.¹

This corresponds with anecdotal evidence from the Pensions Advisory Service (TPAS), a body tasked with helping consumers navigate their pensions - both defined benefit and defined contribution. They report frequently receiving queries from anxious people who have left it to the last minute to start thinking about their retirement income, and who feel overwhelmed by the complexity of the decisions they have to make. This lack of engagement is also evident in the types of questions members of the public ask, which often expose a fundamental lack of understanding about the different sources of retirement income and how they work. For example, following the announcement of the pension reforms in the 2014 Budget, one of the many questions the TPAS received was: "I have a defined benefit public sector plan. Following the Budget could I now transfer this plan under the current pension rules into a defined contribution scheme such as a SIPP, and then cash it all in on April first 2015?"² There were many other similar questions.

SHOPPING AROUND

This lack of engagement can even be seen once someone has started to think about their options. Ideally, a consumer would survey the market, perhaps seek professional advice, and get competitive quotes on the way to making an informed decision. However, while 91% of annuity buyers are cognisant of their right to shop around, 37% fail to do so.⁴ This suggests there is a significant intention-action gap; it is highly likely that many people realise the benefits of shopping around and intend to do so, but fail to follow-through on that intention.

Even those that do shop around do not always do so in a meaningful way. Research has found that people who shop around without professional advice just look for rates online or in the press, and do not speak directly to alternative providers. Even when they do attempt to get competitive quotes, some will simply give up and stay with their own provider.⁴

Despite the clear benefits of getting regulated advice, only just over a third of consumers consult an Independent Financial Advisor (IFA) when making a decision about their pension pot.⁵ While a significant proportion of those who do not consult an IFA might have decided against it after sensibly weighing up the costs and benefits of paying for this service, it is highly likely that many more people would benefit from this sort of regulated, personalised advice – both financially and in order to reduce the anxiety associated with making an important decision under uncertainty.

And even free help and guidance can go unused. One pilot program conducted by Legal & General and TPAS, found that of the 9,000 participants offered free guidance over the telephone, only 2.5% accepted.⁶ A more recent trial found similarly disappointing results, with Royal London reporting that only 71 of the 3,600 people sent letters that offered them a free, no-obligation conversation with TPAS took up the offer – a response rate of less than 2%.⁷

Additionally, many consumers appear to interpret “advice” liberally, thinking it could be anything from full, regulated advice from an IFA to tips from an anonymous contributor on an online forum. As such, when deciding who to seek counsel from, few individuals consider the importance of consumer protection and redress.⁸ This means that when buyers have new freedoms, consumers may end up relying far too heavily on information from ill-informed or self-interested sources, with very damaging consequences such as falling victim to scams or being directed to investments that are not suitable for pension savings or a retirement income.

CHOOSING A RETIREMENT PATH

Even if a buyer gathers information about all possible options and seeks reliable guidance, they might not necessarily make a good decision because of the behavioural biases we are all prone to. And when we take into account the fact that many people only start thinking about what to do with their DC savings at the very last moment and are therefore forced to make a decision when overwhelmed, ill-informed and under pressure to act quickly, it is hardly surprising that people make suboptimal decisions.

It is worth noting here that it is almost impossible for anyone to identify the ‘best’ outcome for an individual at the point at which they are making a decision about accessing their pension savings. This is because so many of the variables (how long you will live, economic climate, future health, etc.) are unknowable at that point. However, there are clear indications that behavioural factors can lead to people making decisions that are not in their own best interests.

One of these indications is that consumers sometimes reject viable options out of hand. For example, although buyers are made aware of a variety of options and express preferences for annuities with inflation protection, fewer consider and take advantage of alternatives to a level, single life annuity.⁹

Another common behaviour resulting in lower retirement income is choosing an annuity without switching providers. For example, the FCA’s Thematic Review of Annuities found that “60% of consumers were not switching providers when they bought an annuity, despite the fact that around 80% of these consumers could get a higher income on the open market, many significantly so.”¹⁰ Among consumers with enhanced annuities, the proportion of who could get a better deal in the open market rises to 91%.¹¹

While accurately predicting how people will behave in the new retirement market is very difficult, perhaps one of the more costly mistakes buyers could make when the new freedoms come into effect is to withdraw large sums from their DC pot – either in one go or

in a series of smaller withdrawals. Recent research gives us a sense of how likely this is, with one study suggesting “£6 billion worth of additional monies will come out of private pension plans in the first four months following the introduction of these new financial rules.”¹² While in some cases this might be the best option for the individual concerned, there is also some evidence to suggest that people will not necessarily use these funds wisely. An Ipsos-MORI survey for Hargreaves Lansdown suggests one in eight people plan to withdraw all of their savings from their pot immediately after the changes come into effect, with one in five of them planning to spend it on a holiday.¹³

Finally, even when buyers are doing their best to make a decision that is in their own long-term best interests, they may end up making a bad decision as a result of scams and the aggressive marketing of poor value or risky products. There are already plenty of firms offering products that are high-risk with unrealistically high returns, and that are even potentially fraudulent.¹⁴ The availability of these types of products is only likely to increase once the reforms come into effect, with rogue operators targeting the hundreds of thousands of people who suddenly have instant access to large sums of money.

ROOM FOR IMPROVEMENT

In a perfect world individuals would be engaged, shop around carefully, and synthesise their knowledge on the way to making a wise retirement income decision, but in the real world they deviate from this ideal in many ways. In recent years increased engagement has been demonstrated by a higher proportion of people being aware of their options, buying enhanced and joint-life annuities and buying an annuity from a different provider, but the proportion shopping around has not changed¹⁵. One of the main reasons for this deviation from the ideal is that a variety of psychological biases can interact with contextual factors to affect decision-making. Our initial diagnosis found that many of these psychologies fall under one of three categories: misperception, time and presentation of choice. We dedicate the following three chapters to exploring each of these categories.

Chapter 2: Misperception

In this section, we explore a range of psychologies and biases related to perception: our perception of our own abilities, our perception of risk and probability, and our perception of what others are doing. We begin with the psychologies of avoidance, denial and overconfidence, as these relate to our perception of self-efficacy. We then discuss the availability and representativeness heuristics, as these influence our perception of probability. Finally we turn to social norms, which impact our perception of how others behave. While usually helping us to successfully navigate everyday life, these biases can sometimes lead us to act in seemingly unwise ways.

AVOIDANCE AND DENIAL

Head in the Sand

As you go up to the attic to find that old photo album, layers of dust and cobwebs fly into the air. For years the attic has been a dumping ground for broken furniture, old clothes and kids' toys. You know you need to sort it out. So you do what most others would do - you shut the hatch and pretend the mess doesn't really exist.

Often, when we face unpleasant tasks or decisions, we avoid thinking about them and simply pretend they do not exist – we stick our heads in the sand.¹⁶ But although this is a very common response, we do not always shy away from difficult tasks - sometimes we face up to the challenge at hand. So what determines if we head up to the attic with bin bags in hand, or just turn on the TV instead?

Studies show that we are more likely to avoid facing up to something when we feel ill-equipped to deal with it; that is, when we have a low sense of self-efficacy. Rippetoe and Rogers (1987) found that an increased perception of the risk of getting breast cancer prompted both adaptive behaviour (intention to perform a breast self-examination) and maladaptive behaviour (avoid thinking about breast cancer). But when the high-threat of breast cancer was paired with information about the effectiveness of breast self-examinations, the use of adaptive coping modes increased and maladaptive modes decreased.¹⁷

Another factor that researchers have found can exacerbate these avoidance techniques is if the task or decision in question provokes fear.¹⁸ This would mean that someone with a profound fear of spiders is much less likely to tackle the mess in the attic than someone who sees them as the (usually) harmless creatures they really are.

Confronting the Reality of Retirement

These findings are hugely relevant to retirement planning. While retirement will mean different things to different people, for many of us it is an unpleasant thought, signifying approaching death, declining living standards, ill health and loneliness. Add to that the many other challenges associated with planning for retirement, and it is not surprising that many people avoid confronting it. As we have learnt, this avoidance can be exacerbated when people feel like they have little or no control over these outcomes or have a low sense of self-efficacy – feelings that the retirement income market can sometimes seem designed to provoke.

First, there is a huge amount of uncertainty inherent in the decisions consumers are making. For example, even with relatively accurate estimates of longevity and income needs, we still run the risk that our choice of pension product will prove in hindsight to be the wrong decision. For example, we might end up needing much more care than we had anticipated, or our partner might die before us even though they are significantly younger than us. These uncontrollable and unpredictable elements add to the sense of powerlessness and lack of control, and can lead people to delay thinking about their retirement until the last possible moment.

Second, a feeling that we do not have the information or skills we need to make a good decision can activate a sense of low self-efficacy. The abundance of information available to retirees can have a paradoxical effect: with the inability to understand, absorb and prioritise this wealth of information, people can be left feeling that they are less well informed than they actually are and end up making worse decisions than they would have otherwise.

OVERCONFIDENCE

We're All Winners

Let us imagine ourselves as university students. You raise your hand in a particularly difficult class to answer a particularly difficult question. Unlike most of your other classmates that day, you answer the question correctly and the teacher is impressed. You feel proud and sit taller in your seat. But this might also lead you to behave differently in future: this one-off event may cause you to put your hand up more often in future – even if you are not so sure of the answer to the question next time around. In short, you become overconfident.

In fact, it does not always take a single, notable event to cause overconfidence: it is endemic among humans, and manifests itself in a number of different ways. When surveyed, we tend to think we have better than average health habits,¹⁹ driving habits,²⁰ and chances of succeeding in a start-up business.²¹ This overconfidence can lead us to make bad judgments in a range of areas, from whether we need to exercise more, to how competent we are when making investment decisions.

Primed for Trouble

Given the increasing freedoms for people to manage their own pension savings, there is significant scope for some people to fall prey to overconfidence. Evidence from the US suggests that overconfidence at retirement can be a problem: one of the top two reasons survey respondents reported wanting to receive a lump sum was a desire to manage funds themselves,²² despite the fact that retail investors tend to underperform in the market over long time periods.²³ Similarly, when asked why they were not interested in annuitisation, the second most cited reason was that respondents believed they could manage money better themselves.²⁴

Our tendency to be overconfident could lead to a variety of unwise decisions when people are choosing how to access their pensions savings. They could decide to withdraw their savings and manage their money themselves, opening themselves up to risky prospects and the chance of losing all of their money. They could withdraw their savings with the intention of investing it, but overestimate their ability to resist the temptation of spending some or all of it once it is in their bank account. And they could also be overconfident in the chances that they will stay healthy throughout retirement, leading to an inappropriate choice of product.

Overconfidence can also cause problems when it comes to acting on the steps that those providing Pension Wise guidance suggest we should take. People might walk out of the session or put the phone down convinced that they will remember to do the four things they have agreed to do, but as soon as the dog starts barking or they get absorbed back into their work these tasks completely slip their mind, resulting in the guidance having limited or no effect on actual behaviours and outcomes.

THE AVAILABILITY HEURISTIC

I Can't Imagine...

If you were given a random sample of English words, which instance would be more likely: a word that starts with the letter k, or a word whose third letter is a k? Like most people, you would probably say that words starting with a k would be more likely. In fact, there are nearly twice as many words in the English language that have k as the third letter.²⁵ So why do so many people get this question wrong? The reason is simple: it is much easier for us to think of words that start with a k.

The availability heuristic refers to the tendency of people to believe that an event is more likely simply because it is more easily recalled.²⁶ For example, one study found that our estimates of the likelihood of dying from various accidents and diseases do not reflect actual probabilities, and are instead highly correlated with newspaper reports which tend to overemphasise vivid deaths that are easier to recall (e.g. from murders, car accidents or natural disasters) and underemphasise natural deaths (e.g. from diseases such as cancer and diabetes).²⁷

Seeing is Believing

The availability bias can be especially pernicious in retirement decision-making. For example, as cited by the FCA, the prevalence and salience of negative media coverage about the annuities market and the continuous highlighting of low annuity rates might cause people to shy away from this option even though it could lead to the best outcome for them.²⁸ Additionally, vivid exposure to topics concerning old age, ill health, and death may lead consumers to underweight the probability of living for several more years. Research conducted by the FCA shows that consumers are likely to overestimate how many people will die between 65 and 70, and underestimate how many will live beyond to 80.²⁹ Similarly, since emergencies are usually dramatic events that are easy to recall, people may decide not to annuitise their wealth because they overweight the probability of needing a large amount of money liquid for emergencies, while underweighting the probability of having insufficient funds later in life. It is not that an emergency requiring thousands of pounds is impossible, but it is not nearly as likely as people are prone to think.

While good financial advice is one way to help combat the negative effects of the availability bias, it may not be enough. The continuing presence of horror stories about the mis-selling episode in the eighties might cause people to overweight the probability that the advice they receive is misleading. A case study provided by TPAS revealed how one customer was extremely reluctant to see an IFA because his brother was mis-sold a pension in the eighties and, despite receiving redress, was still worse off in retirement as a result of the advice.³⁰

On the plus side, the availability bias might also work to prevent people making risky decisions – especially if the media focuses attention on those people who make poor decisions after the new freedoms are introduced and lose all of their savings as a result. Such coverage is likely given the scrutiny afforded to the reforms and the media's tendency to search out alarming human interest stories, even if these cases are not representative of the majority of outcomes.

THE REPRESENTATIVENESS HEURISTIC

If the Shoe Fits?

Picture a man named Tom. Tom is in his late 20s, has a crew cut, an athletic build, and is wearing a tracksuit. Do you think it is more likely that Tom is a footballer or an accountant?

Most people would say that it is more likely that Tom is footballer because he has the characteristics typical of a footballer: he fits the stereotype. However, it is actually much more likely that Tom is an accountant, for the simple reason that there are far more accountants in the world than there are footballers.

In cases such as these, people are liable to be misled by their use of the representativeness heuristic, mistakenly believing that a small or non-representative number of characteristics, experiences, or examples is representative of all such experiences.³¹ When this heuristic is activated, people tend to ignore base-rate probabilities – in this example, the probability of a being an accountant versus a footballer.

One size fits all...

In terms of pensions, the representativeness heuristic could dissuade people from buying annuities, even if this is the best product for them. For example, fixating on annuities as inflexible or drawdown as risky, despite the existence of other options in the respective products that allow more flexibility or manage the risks. In a similar fashion, individuals may use negative media or specific events to inform their beliefs about industries as a whole, resulting in blanket statements such as “I don’t trust insurance companies” or “I don’t trust financial institutions.” Prevalence of this distrust may cause false stereotypes of insurance companies and inflated perceptions of the likelihood of being mis-sold products by them.³² In addition, negative media reports about bad experiences accessing Pension Wise guidance might cause individuals to forego this option, as they overweight the probability that they too will have a poor experience.

SOCIAL NORMS

The Wisdom of the Crowd?

When you meet someone for the first time, how often do you instinctively reach out to shake the person’s hand? Despite there being several ways to greet people, you probably choose to shake hands because from an early age you saw others do it and know that it is a socially accepted way of making an introduction. However, your behaviour is likely to change if you travel to a different country and notice that no one else is shaking hands. Indeed, if you do instinctively reach out to someone to shake their hand in this context, you might end up feeling a bit embarrassed.

This shows how our perception of what other people are doing can provide us with useful cues for how to behave, especially when we are unsure what the right thing to do is.

These social norms can be incredibly powerful in shaping our behaviour, but sometimes other people’s actions are invisible to us, making it difficult to pick up on these cues. Simply making these norms more visible can therefore change the way people behave. One experiment found that hotel guests who had a card in their bathrooms informing them that almost 75% of their “fellow guests” used their towels more than once were 26% more likely to reuse their towels than those who saw a standard environmental protection message. The reference group matters too: a slight rewording of the original norms message to “the majority of guests in this room reuse their towels” [authors’ italics] yielded a 33% increase in towel reuse compared to the standard environmental message.³³ Overall, the better we can relate to others in a particular group, the more likely we are to adhere to the observed norms.

A misperception of norms can even lead us to take the wrong cues. In attempting to perceive what the social norms are in the absence of hard facts, we often resort back to the availability or representativeness heuristics. For example, the iconic and transparent culture of binge drinking on university campuses leads students to vastly over-estimate its prevalence. One study, with over 20,000 students across 38 universities, showed that 71.9% of students overestimated the drinking norm at their colleges while only 15.4% underestimated the drinking norm.³⁴ Even carefully crafted campaigns that try to use social norms to change behaviour can have unintended consequences. For example, in an intervention designed to reduce energy consumption in private homes, a message comparing the household's energy use with the local average prompted both desired and undesired behaviours: people in households who were told they used an "above average" amount of energy reduced their consumption, but those who were told they had "below average" levels actually increased their energy consumption.³⁵

Evidence also suggests that when choices are uncertain or when our cognitive resources are constrained by time pressure or load, our dependence on social norms becomes significantly stronger.³⁶ Numerous studies have shown that when consumers are unsure of what choice is best, they rely on others' choices, believing that they are better informed than we are.³⁷ As uncertainty increases, this social influence only becomes greater.^{38, 39} When the others are equally uninformed or misguided, this can create a dangerous cascade of poor choices.

What's normal about pensions?

Given the vast amounts of uncertainty people face when considering how to fund their retirement our tendency to rely on the social norm is likely to be a crucial factor in decision-making. We may turn to observe our peers when making retirement decisions, but in reality the chances are they are just as lost as we are.

In addition, as we have seen, our perception of the social norm does not always reflect what the majority of people actually do. In the context of retirement choices, just hearing about one or two friends or colleagues who decided to cash out their pension pots to pay for expensive holidays could be enough to give the impression that cashing out is more prevalent than it actually is. While we are likely to see and pay attention to vivid reports of the conspicuous consumption of other people, it is far less likely that we will notice when our friends or colleagues do something less flashy, such as take out an annuity. This could lead us to make decisions that we later come to regret because they were based on the mistaken belief that lots of people like us were behaving in the same way.

This reliance on social norms might also make us more vulnerable to scams. Salespeople have been exploiting the power of this insight for years, pitching their products and services as 'what everyone else is doing'. If people are uncertain of what to choose, lack financial knowledge, or face time pressures to decide, they may be particularly susceptible to this form of persuasion.

Chapter 3: Time

In this chapter, we focus on biases related to time. Specifically, we consider those that impact time orientation (i.e. whether we fixate on the present or the future) and time management (i.e. our ability to follow-through with plans and intentions). We begin with a description of time-inconsistent preferences and present bias because these are the most pervasive psychological phenomena that impact both our time orientation and management, before turning to some of the cognitive processes that underpin present bias. Specifically, construal level theory and future self-discontinuity build on our understanding of time orientation, while planning fallacy and hassle factors shed light on time management.

TIME INCONSISTENT PREFERENCES AND PRESENT BIAS

Buying time

Think back to your schooldays — it's the night before a big exam, you are stressed and dishevelled, and books are spread all over the desk. If you could pay £10 at that moment just to push the exam back one day, wouldn't you seize the opportunity? Now think back to two months earlier, when you first found out the exam date. If someone asked you then to pay £10 for delaying the exam one day, would you? Like most people, you would probably think of much better ways to spend that £10.

Research on human behaviour finds that time-inconsistent preferences often result from our susceptibility to present bias (also referred to as hyperbolic discounting), whereby we heavily discount our future wellbeing for the sake of our present ease or enjoyment. In other words, we tend to value the present more than the future. To understand this concept, let us think back to the moment of cramming for the exam despite having two months to prepare. What happened during this time? Why did we manage our time so inefficiently? Most likely we focused too narrowly on our present wants—whether it was going to the cinema, hanging out with friends, or concentrating on an easier piece of homework, these immediate pressures led to suboptimal behaviours - specifically, the deferral of studying for the big exam. Once the exam date is upon us and we finally get around to studying, it might be too late to properly learn the required material, and we get a worse mark than we had hoped.

Studies have found that we are more likely to put off tasks that have distant rewards, are unpleasant and challenging, or elicit negative emotions.⁴⁰ This method of deferral in response to difficult tasks without immediate rewards is a stable behavioural tendency and is therefore difficult to overcome.^{41, 42} Imagine exercising: although the payoffs could be great in the future (when you have that fit, toned and healthy body you wanted), the up-front costs of getting up from the sofa and heading to the gym might be enough to change your mind and lead you to watch a film instead. But even our viewing habits are not free from present bias. Research into individuals' DVD rental behaviour shows that people take longer to watch and return cognitively demanding DVDs than they do more pleasurable DVDs. In other words, even when choosing our entertainment, we favour the immediate pleasures of a slapstick comedy to the thought provoking or troubling details of a cerebral documentary, despite having the intention to expand our minds at the time we select our DVDs.⁴³

Flash Forward to Retirement

Time-inconsistent preferences and present bias are likely to play a role in retirement decisions in a number of ways.

First, the prevalence of time-inconsistent preferences could lead us to choose inappropriate annuities. Qualitative consumer research by the FCA shows that although there is a high awareness of the risk that inflation can ‘eat away’ at income, the majority of retirees are unwilling to pay the price today (in the form of lower initial payments) to inflation-proof their income for tomorrow.⁴⁴ Research with annuity customers 10-15 years after purchase indicates that they sometimes regret not choosing a product that keeps up with inflation.⁴⁵

Second, the temptations of present bias might foster mismanagement of money, where individuals prioritise spending now rather than saving for the future. Even if individuals withdraw their savings with the intention of paying off mortgages or other debts, once these payments are made they may be tempted to spend any remaining funds rather than reinvest them to increase retirement income at a later date. After all, it is very easy to say, “I’ll just save a little bit more next month” while enjoying an expensive dinner. While the tension between immediate rewards and future benefits exists in the current market, it will be magnified to a huge extent once the new freedoms come into effect and people suddenly have access to large sums of money at 55, when retirement still feels like the distant future.

Third, present bias can result in people deciding against seeking regulated advice because of the upfront costs, despite the potential future rewards of doing so. It is worth noting that these upfront costs are not just financial – it is effortful to research and appoint an IFA – but even in these terms the payoff in the future is likely to outweigh the costs because of the subsequent reduction in stress and anxiety. This tension between upfront costs and future benefits can also play out when the advice is free: the time and energy required to find and use free advice can be enough to deter people from accessing it.⁴⁶ As set out in Chapter 1, this could have serious consequences for the take-up of Pension Wise guidance.

Finally, there is huge scope for procrastination when it comes to conducting a search or making a decision. As we have heard, we are more likely to put off tasks that have distant rewards, are unpleasant and challenging, or elicit negative emotions – all of which apply to retirement decisions. Just like exercising or studying, the rewards for optimally planning retirement are far into the future; however, the costs of sifting through the plethora of pension options, seeking guidance and considering the choices can feel huge. Even the weight of thinking about retirement decisions might cause stress, which could lead to us focusing less on our long term goals, and more on our immediate concerns. Add to this the uncertainty of future outcomes and you have a recipe for procrastination, leading to incomplete searches and poor decisions made when facing serious time constraints.

As we can see, time-inconsistent preferences and present bias are pervasive psychological phenomena, arising in a wide-range of circumstances. But they often manifest themselves because of other psychological processes. To really understand how to recognise and address these biases, it is important to acknowledge that multiple, independent cognitive processes can contribute to them. We discuss four such processes next: construal level theory, future self-discontinuity, planning fallacy and hassle factors. While construal level theory and future self-discontinuity often relate to our long-term manifestations of time orientation, planning fallacy and hassle factors often relate to the more immediate, short-term impacts of time management.

CONSTRUAL LEVEL THEORY

Blurry Vision

Imagine driving along and seeing a sign from far away; the words are blurry and unclear. You are not sure whether this is the exit you are looking for. However, as you get closer, the words sharpen and you can understand the information that tells you whether or not to take the exit.

Similar to our vision, construal level theory posits that people's mental representations of the distant future are often abstract and vague, whereas their mental representations of the near future are concrete and vivid.⁴⁷ These representations contribute to present bias, as people tend to perceive themselves as having more flexibility and free time in their future schedules in comparison to the present (since current obligations and temptations are much easier to imagine). In our studying example, two months out from our exam we can easily imagine being distracted today by an invite from a friend to dinner or an appealing TV program. However, when thinking about the future, we typically fail to think about such distractions. In other words, when imagining the future, we typically only picture the essence of events, not the smaller (but important) contextual and incidental details.⁴⁸

Seeing into the Future of Retirement

Construal level theory might explain why we consistently see suboptimal outcomes in retirement decisions: individuals only have vague representations of the future and hence find it challenging to plan accordingly. For example, the FCA finds that it is very difficult for people to accurately gauge their likely spending patterns during retirement. Many expect that their income needs will drop in later life as they progress from an active and healthy state of retirement to a less active one in old age. Yet these respondents might not think to consider the potential costs of long-term care,⁴⁹ or the possibility that they might be fit and healthy enough to want to go on holiday, not to mention the incidental day-to-day expenses that can quickly add up.

FUTURE SELF-DISCONTINUITY

Meet Your Future Self

As you cram for the exam, you come across a picture of yourself from primary school. You instantly make a connection and reminisce about those easier times, imagining your younger self and the thoughts and aspirations you had. Yet how often do you picture your future, older self, and your future, older thoughts and aspirations?

Future self-discontinuity provides another explanation for why we might exhibit present bias. We often find it difficult to imagine ourselves, and thus our needs and wants, in the distant future. This ambiguity and lack of salience leads us into the pitfall of present bias. When our future selves are not salient and difficult to imagine we are unable to empathise with them, frequently leading to them getting the raw end of the deal when trade-offs have to be made between benefits to our present or our future selves. However, research has shown that when people interact with aged computerised renderings of their future selves (i.e. when their future selves are made more salient and concrete to their current selves), they are more likely to allocate resources towards the future.⁵⁰

The Retired Me

Future self-discontinuity is especially dangerous in retirement planning. As life expectancies increase and DC pension holders become able to withdraw funds from age 55, people approaching retirement are forced to consider the wants and needs of a future self who will not exist for decades. This huge gap between the present self and the future self is likely to exacerbate present bias, resulting in more people making short-term decisions to the detriment of their older, retired self.

PLANNING FALLACY

History Repeats Itself

Let us imagine now that your big exam is behind you, and you somehow managed to scrape the grades you need to get to university. You have made it through the first couple of years with the usual amount of late night cramming, and it is now time to write your dissertation. But you have learnt your lesson by now; this time, you will definitely start working on it early to make sure you avoid that last minute panic as the deadline approaches (especially as the deadline coincides with the end of term, when all the best parties happen). With that determined outlook in mind, how accurate do you think you will be in predicting how long it will take to write your dissertation?

Buehler, Griffin and Ross (1994) asked the above question to a group of students in a university seminar. They had students give their best, most optimistic, and most pessimistic estimates of how long it would take them to complete their thesis. How did they do in these predictions? In short: not very well. The actual completion time was a remarkable 21.6 days longer than students' best estimate (55.5 days to 33.9 days) and less than half of students (48.7%) completed their thesis by even their most pessimistic estimate.⁵¹ Surprisingly, similar previous experiences do not help us more accurately predict completion times in the future.⁵² When predicting the time it takes us to complete tasks, we consistently fall victim to the planning fallacy.

These results are not only true among university students (the stereotypical procrastinators), but have also been confirmed in a variety of other settings, including writing software programs,⁵³ completing tax forms,⁵⁴ and even crafting origami.⁵⁵

Reaping What We Sow

We have already discussed our tendency to procrastinate in the context of retirement decisions. However, our susceptibility to the planning fallacy (and our subsequent overconfidence that things will be different next time) increases the likelihood of suboptimal searches and poor decisions: we might underestimate how long it will take to do a full search and run out of time, or put retirement planning at the bottom of a long task list that turns out to be unachievable in the time we have available. A consequence is that – when they finally get around to doing a search – consumers are often hit with an abundance of choices and information with little time to process them. They may find that with these constraints, they are unable to complete actions recommended at the Pension Wise guidance sessions, or run out of time to find and appoint an IFA, and thus resort to over-reliance on existing providers or default options. They are also more likely to get overwhelmed and become increasingly susceptible to scams or aggressive and persistent salespeople.

HASSLE FACTORS

It's the Little Things That Count

Have you ever had a GP you did not think was looking after you well, but never got around to finding a new practice and going through the registration process? Or, thinking back to our dissertation example, perhaps there were articles that you knew would really support your argument, but they were only available at the library, some 30 minutes away. What are the chances of you going to retrieve them when you are already pressed for time? These seemingly cursory 'hassle factors' should not affect decisions as important as your health or your chances of getting a good degree, but in reality they do.

These hassle factors can have outsized effects. The US Government makes billions of dollars available every year to help support low and middle-income people through higher education. To access this assistance, aspiring college students simply have to fill out a form, called the FAFSA. Yet research has shown that many people who are entitled to grants or subsidised loans and who express a desire to go to college fail to fill in the FAFSA, missing out on thousands of dollars in free money. Why would they make such a strange decision? Remarkably, evidence suggests that many students fail to take advantage of this opportunity simply because of the hassle of filling out the form: researchers found that aspiring students who were offered help to fill out their FAFSA forms were 15.7% more likely to submit the form than a control group (which received no help). And it did not just lead to more applications – simply reducing the hassles of filling out a form led to a 29% increase in college enrolment among those who received federal assistance.⁵⁶

The Hassles of Retirement

When you look at the retirement planning process, you find hassle factors everywhere. Reading through the wake-up pack is effortful and time-consuming. Finding and appointing an IFA can involve a number of steps, as can making and attending an appointment for a Pension Wise session. And then there is reviewing all of the information we gather to assess our options. While these are seemingly small hassles in the context of making a decision that will affect the rest of our lives, they are likely to deter large numbers of people from following through with a plan that will help to secure their long-term best interests.

Chapter 4: Presentation of choice

In this chapter, we focus on the biases and psychologies that relate to how people interpret the choices or information that is presented to them. We begin broadly by exploring our behaviour when presented with too many choices, too much information, or lots of ambiguity. We then delve deeper into our actual search process among presented options: for instance, how do we compare products that have nonalignable features? How do we compare across choices that are presented simultaneously and those that are presented sequentially? Finally, we narrow our focus to defaults. When presented with a range of options, how might a default option change our behaviour? These are the questions we turn to now.

CHOICE AND INFORMATION OVERLOAD

Stuck in a Jam

Have you ever gone into a shop with a clear plan to buy something – say a new TV – but walked out empty handed because you could not decide between the multitude of makes, models or sizes?

If so, you are not alone. Study after study has found that too many choices can be overwhelming. Even something as seemingly simple as buying jam can become difficult when there is too much choice: psychologists found that consumers were ten times more likely to make a purchase when presented with an assortment of just six jam flavours than with an assortment of 24 flavours.⁵⁷

While deciding what to put on your toast might feel like a trivial issue, an analysis of nearly 800,000 American workers found that, after controlling for individual and pension plan characteristics, plans that offered more fund options had lower participation rates. The researchers conclude that this is an effect of choice overload – people were deterred by the prospect of having too much choice.⁵⁸ Similar findings have been documented across products as diverse as chocolates⁵⁹ and Medicare plans.⁶⁰

While the conventional view is often the more choice the better, these studies show how we can easily become overwhelmed when faced with too many options. The extra cognitive burden of choosing between multiple options can ultimately lead to undesirable outcomes like delaying making a decision, not choosing at all, or making rushed choices that are suboptimal. Studies have also shown that, when uncertain about what decision to make, individuals who choose from a larger set of options tend to end up less satisfied with their choice than those who choose from a smaller set.⁶¹

From the Supermarket to the Pension Market

If we find buying jam overwhelming, imagine having to choose a pension option. From April 2015, consumers who would have previously been required to take an annuity will have many more options to choose from, including partial or full withdrawal, a broad and expanding range of drawdown products, a more traditional annuity, or a combination these options.

We can predict the problems that will ensue. Even within the annuities market, choice and information overload exists. Annuity products themselves are diverse and include several options including level, escalating, single-life, joint-life, fixed-term or enhanced annuities, among many others. Assessing the trade-offs involved in choosing between these products is strenuous and the repercussions of making the wrong choice can seriously impact quality of life after retirement. And that is even before you factor in broader decisions about when to retire, what to do with other savings or income, whether to prioritise repaying debts or doing home improvements, and the myriad other decisions inherent in such a huge change in lifestyle.

This situation is not helped by the fact that information regarding annuity options can be intimidating, complex and difficult to understand. The FSA's 2008 Consumer Purchasing and Outcomes Survey found that 50% of annuity buyers said they felt bombarded by too much information. Similarly, in their 2013 qualitative research, the ABI found that annuity buyers found the quantity of information and content of wake-up packs overwhelming.⁶²

Faced with this choice and information overload, many individuals will undoubtedly delay engaging with the retirement planning process. Indeed, the FCA's Retirement Income Market Study found that almost one quarter of consumers surveyed keep putting off retirement planning because it is complex, and 21% do so because of fear of making the wrong decision.⁶³

CHOICE AND INFORMATION AMBIGUITY

Better the Devil You Know

Have you ever decided to take the longer route to your destination because the shorter route can sometimes have bad traffic jams? If so, you're like most of us: we would rather know exactly how long it would take to somewhere, rather than face the uncertainty of running into a jam and getting delayed – even if the likelihood of this happening is fairly small.

Research into human behaviour finds that individuals are consistently ambiguity averse. This means that we prefer to bet on situations where the specific odds of an outcome are certain, even if these odds are extremely low, rather than bet on an alternative scenario where the odds are more ambiguous - even if there might be a really high payoff. Daniel Ellsberg popularised this concept in 1961 when he ran a series of experiments illustrating how people prefer to bet on the outcome of an urn that contains 50 red and 50 black balls rather than the outcome of an urn that contains 100 red and black balls, but in an unknown proportion.⁶⁴ This preference to bet on clear rather than vague probabilities has been replicated in variations of Ellsberg's original paradigm.⁶⁵

Subsequent studies show that the actual level of ambiguity is perhaps not as important as the perceived sense of ambiguity. For example, Heath and Tversky (1991) demonstrated that people prefer to bet on events that they feel more knowledgeable or competent about, even if the actual probability is quite vague. For instance, they found that participants who felt very knowledgeable about sports or politics were more likely to bet on these topics rather than on a lottery considered equally probable. Interestingly, this strategy of betting on judgment was less successful than betting on chance (for sports, judgment yielded success rates of 64% whereas chance yielded a rate of 73%). Therefore our tendency to bet on more familiar sources of uncertainty does not necessarily yield better outcomes. This tendency is present in other situations as well, such as investment decisions. Research suggests Finnish investors are more likely to buy, hold, and sell stock in nearby Finnish firms due to a preference for familiarity.⁶⁶ This 'home bias' is well documented; for example, UK investors hold 82% of their investments in UK based firms.⁶⁷

The Safe Road

For people making choices in the pensions market, perceptions of ambiguity may explain why fewer than half of consumers switch providers. Consumers have a relationship with their current pension provider. Even if they have had limited dealings with them, or experienced some minor issues, this relationship can still provide them with an element of certainty. A new provider, even one with a good reputation, presents a level of ambiguity that could lead people to stay with their current provider.

This ambiguity aversion can also play out during the search process. Many websites that are designed to help facilitate a search can be unclear in their intentions. Are they really impartial? How can I be sure that they will come up with what I'm looking for? Why do they need all this information – will it get sold on to lots of dodgy salespeople?

Indeed, qualitative research by the FCA and the Financial Services Consumer Panel (FSCP) confirms that consumers shy away from sources of information if they are uncertain whether they are “fair” or “misleading”, even though these sources might turn out to be extremely helpful. The FCA also finds that consumers were often reluctant to enter their personal details into these sites for fear of being ‘bombarded’ with sales calls.⁶⁸

The ambiguity around both other providers and the search process itself can make shopping around less attractive, despite the possibility of better deals, and may cause overreliance on the information and products offered by current providers. However, while ambiguity aversion can certainly negatively impact on the proper functioning of the market, there is an upside; ambiguity aversion could also lead people to be more reluctant to invest their pot in unfamiliar or risky products because of the uncertainty around the outcomes.

ALIGNABLE VS. NONALIGNABLE FEATURES

To Align or Not to Align

Imagine two restaurants, with roughly the same quality food and drink. The average price of a main course at Restaurant A is £10, while the average price at Restaurant B is £15. However, Restaurant A offers an expansive dessert menu, while Restaurant B has a live mariachi band perform on the weekends. Which do you choose?

When we choose between different products or options, we often need to consider both alignable and nonalignable characteristics. By alignable, we mean features or attributes that are shared between products, but vary in value (i.e. £10 vs. £15). On the other hand, nonalignable features are unique to a particular product (i.e. the dessert menu and mariachi music).⁶⁹

Research has found that when assessing options in complex situations, we often rely more heavily on alignable product features – simply because nonalignable features are more difficult to process, and add complexity to the task of making comparisons. This might explain why alignable differences are cited more often as justifications for decisions,⁷⁰ or why they are remembered and mentioned more often in the evaluation process.⁷¹ Gourville and Soman (2005) further highlight the challenges associated with making decisions when faced with nonalignable features by asking people to choose between two brands. When Brand A and Brand B offered one product each, Brand A had a 53% market share. When Brand B offered five products with alignable options to Brand A's one, its market share increased to 73%. However, when Brand B offered five nonalignable options to Brand A's one, Brand B's market share actually decreased to 40%.

Lining up for Retirement

We have discussed how people can often become overwhelmed when presented with a wide array of choices or are forced to deal with vast amounts of uncertainty. Under this extreme cognitive load they may increasingly rely on alignable characteristics to make choices. Yet we know that the products available in the pensions market are filled with features that are nonalignable and that provide unique benefits, making it more difficult to keep track of these attributes and process the utility it might bring us. Non-alignable features like trust and reputation of the provider can also play a part in customers' decisions.

If we extend beyond annuities, and include income drawdown and cash withdrawal options, the alignability between product features becomes much more difficult. How do you even begin to compare an annuity to other features such as investment performance, charges, customer service and the vast array of investments you can make if you withdraw your cash? Struggling with these types of questions might cause individuals to disregard annuities or other groups of options completely. This failure to gain a complete overview of options is likely to lead to a suboptimal product choice.

SIMULTANEOUS VS. SEQUENTIAL SEARCH

Life is Like a Box of Chocolates

Imagine opening up a box of chocolates and seeing all of the mouth-watering options presented to you at once. After careful examination of the leaflet showing the filling of each chocolate, you pick the one you want. Now, imagine the same box of chocolates, but this time each chocolate is presented to you one by one (with a description). After pondering for a while, you finally decide which one you want. Now, which process did you prefer?

Mogilner, Shiv and Iyengar (2013) tested this exact chocolate experiment among participants in a controlled lab setting. Their objective was to see if a simultaneous presentation of choice (i.e. all chocolates presented at once) would lead to a different level of satisfaction and willingness to commit to an option than a sequential presentation of the same exact options (i.e. all chocolates presented one by one). They found that those presented with the chocolates sequentially were significantly less satisfied - and less willing to commit to their choice - than those presented with options simultaneously. The theory is that a sequential search yields a lower utility from a chosen option because sequential choosers are likely to compare each option presented against an imagined better option. In contrast, simultaneous choosers remain fixated on the current choice set rather than wasting cognitive energy on imagining alternative options.⁷²

All Together Now

Given the vast array of pension products on offer, and the range of sources that a consumer might go to in order to learn about them, it is highly likely that their search will be more sequential than simultaneous, i.e. they are likely to consider different options at different points in time. This can make the decision-making process very difficult indeed.

An exacerbating factor when we consider simultaneous vs. sequential search in this context is that the stakes of making the wrong choice are high, especially as some of the choices we make are irreversible. This increases our fear that we will regret the decision we make. Elsewhere along the search process, we are likely to continuously hope for a better option to emerge to help manage our pension pots once we have seen the various attractive (and important) features on offer. Sadly, the majority of DC pension holders will not have sufficient savings to be able to afford a product with all of the features they have seen, leaving them dissatisfied with their ultimate choice.

DEFAULT SETTINGS AND STATUS QUO BIAS

Creatures of Habit

Once again, let's go back to your schooldays. Do you remember your first day of class, when you impulsively chose a desk? Despite the lack of assigned seating, you probably returned to that same chair in every class for the rest of the term. Why was that?

Studies have found that we have a tendency to stick with the status quo, or the current state of affairs, however arbitrary it might be. This has even proven to be the case when the cost of switching is relatively small, especially when compared to the potential gains. For example, why do so many people stick with their current energy provider, despite research suggesting they might be able to save £200 a year if they switched?⁷³

One of the implications of status quo bias is that default settings (i.e. pre-set options for individuals in a decision-making context) can have a powerful impact. For example, in Germany the default is that no one is an organ donor, so people must actively opt-in to be put on the organ donation register. However, Austria has a default setting where everyone is an organ donor, and people must actively opt-out if they do not want to be on the register. Despite these two countries being very similar culturally, the different default settings yield drastically different consent rates for organ donations: 12% in Germany compared to over 99% in Austria.⁷⁴

Sticky Defaults

As we have seen, default settings can have a powerful effect, due largely to the status quo bias. Nowhere is this more evident than in pensions savings, with both the UK and US introducing automatic enrolment into workplace pension schemes in recent years, and with dramatic results.⁷⁵

However, defaults can also have the opposite than intended effect. One study found that when a large U.S. corporation switched their default pension contribution rate from 0% to 3%, the percentage of new employees saving anything towards retirement rose from 37% to 86% - which on the surface is a positive outcome.⁷⁶ However, this 3% default also had some drawbacks. While boosting the proportion of new workers choosing to save anything at all, it simultaneously reduced their likelihood of electing to save more than 3%. This finding has been replicated in several firms.⁷⁷ Researchers suggest that this tendency to stick to the default stems, in part, from employee perceptions of defaults as investment advice.⁷⁸

Another potentially negative effect of defaulting people into a pension scheme is that it can foster a habit of disengagement from everything pensions-related,, resulting in potentially serious consequences when the time comes for them to start making decisions about their pension pot. For example, it could contribute towards people not engaging in the decision-making process until just before they are due to retire, resulting in poor decisions being made under pressure. Alternatively, consumers could make no real decision at all about their pension pots, simply taking the 'path of least resistance' - which may or may not be a good outcome for them depending on what that path leads them towards. While this currently most often leads to the pot remaining invested, there is the potential for this to change in the future.

Chapter 5: Is age nothing but a number?

Behavioural science provides us with a unique lens through which to understand a diverse set of cognitive biases. Though this work speaks to biases that generally affect all humans in similar ways, research also finds that some of them manifest themselves more strongly within certain demographic groups. For example, it probably comes as no surprise to learn that teenagers have been found to be more likely to succumb to present bias and thus have more problems with self-control than older people.⁷⁹

Because retirement income decisions usually occur at a very specific point in the course of someone's life, it is important to consider how aspects of aging can affect susceptibility to psychological biases. In particular, there are two critical aspects of aging – shifts in emotion regulation and cognitive capacity – that can lead older adults to be more prone to certain types of behavioural biases.

As adults age, studies find that they increasingly behave in ways that maintain positive emotions and avoid negative emotions.^{80,81,82} While these changes in emotion regulation are associated with many positive outcomes (for example, reduced loneliness and depression), they can have some negative effects when it comes to decision-making. Reed et al. (2008) demonstrate that older adults actually seek less information when making decisions as a way of minimizing the negative emotions associated with making difficult choices. In their study, older and younger adults were asked to indicate the desired number of choice options across six domains, from jams, cars, and flats, to prescription drug plans, physicians and hospitals. Across all domains, older adults consistently preferred significantly fewer choices than younger adults. Relative to younger adults, older adults also reported being more satisfied with choices that came from smaller choice sets.⁸³

In addition to simply preferring fewer options, older adults increasingly show a tendency to focus on one or two key alignable features of a choice, rather than taking on the difficult or impossible task of determining likely benefits across multiple, potentially nonalignable features.^{84,85,86} In the realm of retirement income decisions, this might mean that a person focuses on a small number of features of the pension products, and fails to consider the full range of advantages and disadvantages of particular options. Relatedly, a person might focus on a single type of option (for example just choosing among different annuities), without taking on the more difficult task of comparing across more diverse options.

The desire to avoid negative emotions can also exacerbate other behavioural biases associated with negativity, such as loss aversion. For example, in the pension context, one study finds that when lifetime annuities were framed in terms of investment losses (i.e. low returns and the inability to transfer money to family if they die early), only 21% of respondents prefer annuities to a savings account. Yet when they were framed in terms of consumption gains (i.e. a guaranteed income for the rest of their life), 72% of respondents prefer an annuity.

In addition to emotion regulation, reduced cognitive capacity among older people could also have an impact on behavioural biases. For example, aging has been found to reduce a person's ability to juggle multiple pieces of information^{87,88,89} and incorporate new information into existing knowledge structures.⁹⁰ Indeed, fluid intelligence, which describes the capacity to think logically and solve problems in novel situations, peaks in early adulthood and declines after this point. Perhaps as a result, older adults tend to be less open to considering new information, ideas, or ways of doing things – preferences that would limit one's desires to search through multiple options or change from an existing default option.⁹¹

Some research suggests that older adults recognise these cognitive deficiencies in themselves, and adopt strategies to overcome them. Relative to young adults, older adults rate themselves as less able to gather and interpret complex information.⁹² This recognition leads them to rely more on automatic, rather than deliberative, processes such as the availability bias, or social norms.⁹³ For example, if older adults feel they do not have the cognitive capacity to fully process complex information about which retirement option is best for them, they may be more likely to make a decision based on the availability heuristic — i.e. simply choosing the option that he or she has heard about most frequently, or the option that a friend chose.

This recognition of cognitive deficiencies can also exacerbate feelings of a lack of self-efficacy, and lead to people being more likely to avoid or defer making decisions or taking actions in relation to their retirement.

Chapter 6: Recommendations and remedies

In this chapter, we draw on the key insights from our behavioural analysis to suggest some of the steps that could be taken to help overcome these bottlenecks. Specifically, we consider actions that firms, the Government and regulators could take to increase the likelihood that people will:

1. Engage early in retirement planning;
2. Shop around and gather accurate information; and
3. Make an appropriate decision

Our objective here is to contribute to the debate about what should be done to ensure the reforms are a success, and deliver on their promise to improve outcomes for retirees. However, because human behaviour is so hard to predict and small details can have a disproportionate effect on behaviour, further work would need to be done to make sure the ideas we set out have the intended impact. It is also worth noting that this list is not designed to be exhaustive; there are likely to be many other ways to apply behavioural insights to the retirement income market.

There are various methods that can be used to test the efficacy of behavioural designs before applying them at scale. The ideal is to use randomised controlled trials (RCTs) to test new approaches, as this is the best method for determining causality. RCTs can be deployed as part of a scaling-up strategy, with the new approach trialled and refined through small-scale pilots before being expanded.

The other crucial element of behavioural design is prototyping new materials and products to allow for rapid user feedback. This process can provide valuable insights into how consumers are likely to respond in a real-world situation, allowing the design to be refined and improved before it is then tested.

We are also aware that a number of these recommendations would need to overcome the regulatory barriers of making communications more attention grabbing, without turning into a financial promotion or a personal recommendation. The FCA's work on disclosure and the advice boundary has helped to an extent, but we realise that providers remain constrained in how far they can go to help customers make decisions. We therefore think that it would be prudent to revisit this work in light of our increased understanding of human behaviour.

The recommendations offered in this chapter are therefore simply the first stage of an on-going process to identify the most effective ways to help people make better decisions. We hope they lay the groundwork for the development of solutions that are rooted not just in theory, but in empirical evidence, too.

ENCOURAGING EARLY ENGAGEMENT

- **Foster engagement with retirement planning at a much earlier stage:** Automatic enrolment into pension plans, while clearly effective in increasing savings, can also foster disengagement with retirement planning – the norm becomes that one does not have to act in the belief that one's pension is taken care of. One way to mitigate this effect could be to put in place mechanisms to prompt engagement throughout the pension-holder's working life. For example, employers and/or providers could use salient, attention-grabbing communications to encourage pension-holders to make a choice about the level of contributions every year (while retaining a sensible default option). If designed in the right way, a by-product of this could be increased savings rates; schemes like Save More Tomorrow in the US (which allows individuals to pre-commit to higher savings in the future, as they receive pay rises), led to an increase in the savings rates of participants over the course of 40 months, from 3.5% to 13.6%.⁹⁴

- **Encourage employer involvement:** Current employers can play a crucial role in the retirement planning process, particularly since they are often trusted third party actors, independent of pension firms. Specifically, they can provide timely and salient prompts to act early; they can mitigate apprehension by providing a ‘safe’ environment to begin thinking about retirement; they can clarify, in a non-threatening way, the consequences of avoiding action; and they can point people towards reliable and independent sources of guidance. For example, they could send behaviourally designed communications to employees in a certain age bracket, or hold workshops with those employees who are approaching retirement (ideally well in advance of actual retirement).
- **Create a plan-making tool:** This early engagement could also build in ways to mitigate for later problems with self-control. Evidence suggests that simply writing down a goal can increase the likelihood that someone will follow-through on their intentions.⁹⁵ Encouraging people to make a concrete plan and formulate goals for how they will use their DC pension savings before they actually have access to it is likely to result in more people following through on their intention to spend it wisely, rather than succumbing to temptation when they have access to their funds and the desire to go on holiday or buy a new car is more powerful.
- **Early communication from providers:** A shorter, friendlier communication from pension providers, before the full wake-up pack, could be introduced to ease people into the planning process. It could include a checklist, setting out the steps involved in making a decision. This would serve a number of functions. It would make the process seem more manageable and concrete, reduce the chances that someone will forget to take a particular step, encourage a sense of self-efficacy by providing people with a clear plan to follow, and help to clarify exactly what shopping around should look like if done properly. Checklists have proven to be extremely effective in a wide range of settings, and have even been used to reduce patient complications during surgical procedures.⁹⁶ The checklist should be designed in a way to allow the first one or two steps to be pre-ticked, (for example, if the first step is actually joining a pension scheme). This highlights that the consumer is not starting from scratch, and therefore encourages them to make further progress.⁹⁷
- **Behaviourally informed wake-up pack:** It is encouraging to note that the FCA is working with the Government to develop an alternative to the current wake-up pack, and has proposed consulting on new rules for at-retirement communications.⁹⁸ There are a number of factors that could be considered in this process to make the wake-up packs more behaviourally informed, and to encourage engagement from consumers, many of which build on the ABI’s existing Code of Conduct on Retirement Choices:
 - *Reduce information overload:* provide only the most relevant information, and do so in a jargon-free way. The packet should be simple, easy to understand and engaging – in terms of both content and format. When presenting different options, the choice set should be as easy to understand as possible. This could include prioritising the information that is presented, and clearly signposting where consumers can find additional sources information rather than including it all in the pack.
 - *Mitigate fear:* The messaging should be friendly in tone, and designed to reframe social norms by telling people that they are not alone in finding the process challenging. Moreover, providers should avoid using scare tactics or focusing on the more unpleasant aspects of retirement planning, such as the risk of running out of money.
 - *Resend the checklist:* Because we know that people are inattentive and liable to misplace documents, the checklist mentioned above should be resent. Providers could also make an online version of this tool available to consumers.
 - *Conduct follow-ups:* Providers could also consider calling pension holders, or sending a behaviourally informed text message, shortly after they send the wake-up pack to draw attention to it and offer to answer any questions the consumers might have. This draws on research that found that simply combining text-message reminders with offers of support has been found to increase the number of people attending college.⁹⁹

INCREASING SHOPPING AROUND

- **Encourage uptake of Pension Wise guidance:** Pension Wise guidance is likely to be a useful resource for DC pension holders, but there is a real risk that those people who could most benefit from the advice will not access it. To encourage uptake we suggest the following:
 - *People should be clearly signposted towards the service at the optimal age:* Savers should be sent a behaviourally informed invitation letter to schedule Pension Wise guidance at the right age to prompt informed decisions. This might be before or after they reach 55, with this decision being made based on best available evidence once the reforms come into effect. Simple interventions such as personalizing the letter, making the relevant information clear and salient, and including a box to enter the scheduled date and time could encourage uptake. Similar techniques have been used to significantly increase uptake of NHS Health Checks in the UK¹⁰⁰ and influenza vaccination rates in the US.¹⁰¹ The letter should also clearly articulate the benefits of attending a session and the importance of thinking about retirement planning at an early stage. This initial letter should be followed up with reminders to those people who have not yet attended – much as the NHS does for health screening tests.
 - *Make it easy to schedule and attend an appointment:* It is important that people are able to schedule an appointment easily; small hassles, such as having to find out where the guidance sessions are located or appointments not being available at a convenient time, could lead to people failing to follow through on their intention to use the service. Pension Wise providers should ensure that channels through which people can make appointments are user-friendly and responsive. For example, one study showed that simply providing a map of the university health building and a time for shots made subjects more likely to get a tetanus shot.¹⁰²
 - *Use descriptive social norms:* Invitation letters and other messaging should be designed to give the impression that it is the norm to seek advice from Pension Wise. The exact content would depend on actual uptake, and tests should be run to determine the most effective message, but ways should be found to convey to the recipient that lots of people like them¹⁰³ seek advice.
 - *Provide timely reminders once an appointment is scheduled:* To reduce the likelihood of missed appointments and encourage people to follow-through on their intentions, we suggest sending text message reminders in advance of the scheduled appointment time. These have been shown to reduce the number of missed hospital appointments.¹⁰⁴

- **Ensure content of Pension Wise guidance is behaviourally informed:** Although ensuring people actually access Pension Wise guidance is the first step, this might not necessarily translate to better preparedness for retirement; evidence on the efficacy of financial education in improving outcomes is generally mixed.^{105,106,107,108} However, behavioural research is slowly beginning to prise out what works and what does not during financial education. For example, one pilot study finds that reducing financial education to simple rules of thumb heuristics might be more impactful.¹⁰⁹ This once again highlights the importance of context and the need to think carefully about the structure and content of guidance sessions themselves. While Pension Wise guidance should be informed by the latest research and verified through testing, we suggest the following steps based on the analysis in this report:
 - *Mitigate fear:* Engagement and interactions should be friendly in tone, taking into account the apprehension and decision-paralysis that can ensue if one is hit by a large amount of information that is difficult to comprehend.
 - *Minimise the threat to one's sense of self-efficacy:* The sessions should ensure an open atmosphere of communication, where individuals do not have their sense of self-efficacy threatened by being made to feel ignorant.
 - *Encourage connection with one's future self:* Find ways to encourage people to imagine a more salient version of their future selves, making the abstract, 'blurry' wants and needs of their retirement future more real. This can be done in a number of ways,

including thorough step-by-step consideration of likely expenses, as well as helping them relate to other older people through case studies and personal accounts of people with similar personal and financial situations.

– *Correct misperceptions:* Guidance sessions could be explicitly designed to:

a) Correct expectations of life expectancy, since we have a tendency to underestimate longevity. Clearly personalising the estimate based on individual characteristics would make this more powerful and likely to be heeded.

b) Reduce symptoms of overconfidence by providing clear and robust evidence of people similar to them making poor financial decisions, and the effect that has on their lives.

c) Combat the representativeness heuristic (where one bad annuity option facilitates rejection of all annuity types, despite some being beneficial) by explaining the broad range of annuity options and the differences between them, as well as other products available.

– *Facilitate plan-making:* Consider having individuals agree and write down their plan for next steps during the session, whether that is saving more, meeting an IFA, looking at specific comparison websites, or obtaining comparison quotes from providers. One study showed that simply getting people to write down the date and time they planned to be vaccinated significantly increased vaccination rates.¹¹⁰ Similar methods have been used to increase voter turnout during elections.¹¹¹

• **Present choices clearly:** To facilitate the search process, and enable effective comparison, the following steps should be taken:

– *Providers should categorise product offerings in order to make comparison easier:* In recent years, it has become easier to compare annuity products due to parameters set by regulation, together with industry initiatives. To build on this progress, further cross-industry standards could be developed with distinct product categories and labels that explain what the products are and how they can be compared. The market has already developed rating systems to guide advisers and customers, and this could be extended with participating providers undergoing a behavioural audit of their product set and communications with customers.

– *Independent organisations that provide information for consumers should make comparison of options as easy as possible:* As with the tools offered by the Money Advice Service and some other price comparison websites, nonalignable features should always be easy to compare, with a simple yes/no or rating column for each nonalignable feature where this is available. Search tools should also allow consumers to compare suitable options simultaneously after an initial (sequential) search to reduce the choice set.

– *Reduce ambiguity around sources of advice/information:* Search tools and other providers of information and guidance should be explicit in their intentions, including clearly specifying what they will (and will not) use personal information for. The FCA or another body could audit sources of information on pensions and give those that meet the required standards of transparency and quality of information a seal of approval.

MAKING BETTER DECISIONS

• **Counter the risk of scams and aggressive marketing:** In the new retirement income market, consumers are likely to be more susceptible to scams and harassment from aggressive salespeople. While the FCA and other agencies are already working to highlight scams, we should ensure that as few people as possible fall victim to unscrupulous firms looking to cash in on the sudden availability of large sums of money by deploying more intensive engagement with the cohort that will gain immediate access in April 2015. This should include greater efforts to encourage them to access Pension Wise advice. There should also be common standards across the industry, and tighter regulation of the vehicles used for scams.

- **Reduce likelihood that people will succumb to present bias:** Several of our recommendations try to mitigate the impact of time-related biases, such as the implementation of reminders to prevent planning fallacy or the encouragement of connecting with one's future-self to limit time-inconsistent preferences. Yet, even with careful planning, the temptation of instant gratification can override self-control. In this context, we recommend that cool-off periods or additional steps are introduced whenever people seek to withdraw more than a certain proportion of their pot – either in one go or through sequential withdrawals of smaller amounts. While not restricting choice - as the funds will still be available to them - this will help to ensure that people are not acting in the heat of the moment. In line with this, we support Age UK and the ABI's suggestion of introducing a second line of protection, where individuals are prompted with questions when accessing their pensions. These might include questions about medical circumstances, partners that might be dependent upon them, contingency plans if they've exhausted their pension, and their understanding of the tax implications of making withdrawals.¹¹²
- **Reliance on defaults:** As we have seen, people are prone to follow the 'path of least resistance', which can either mean taking no action at all and therefore sticking with the default option (which in the current market usually means that the funds remain invested), or making a decision of sorts, but opting for the easiest option. With this in mind, much more consideration needs to be given to what default options actually are, the scope for engagement and other behavioural tools available to providers, government and regulators to address this tendency.

Conclusion

In April 2015, the Government will introduce dramatic changes to the retirement income market, creating more choice and flexibility for holders of DC pensions. There is real potential for people to benefit from these reforms, but we must proceed with caution. As the analysis in this report has highlighted, the prevalence of powerful behavioural biases - combined with the particular context in which people are making decisions about their pension – could stand in the way of them reaching their desired retirement goals and have a negative effect on the functioning of the market.

While we can do little to change the way people’s minds work, there is much we can do to change the environment in which they are making decisions. The goal of any such changes should be to either:

1. Maximise the likelihood that people will follow-through on their intentions, for example taking up the offer of Pension Wise guidance or conducting a proper search.
2. De-bias the decision-making environment as far as possible in order to reduce the chances that people will make decisions based on faulty heuristics or our tendency to be biased towards the present.

This report explores some of the strategies that the Government, regulators and industry might deploy to meet these goals, and therefore improve outcomes for individuals and industry. Specifically, we consider concrete actions that could be taken to try and increase the likelihood that people engage early in retirement planning; shop around and gather accurate information; and make a the best possible decisions in their own best interest. These range from simple changes such as providing reminders to attend Pension Wise guidance sessions to more systemic changes like using employers as a channel through which to facilitate engagement in the retirement planning process.

However, as we note in the report, while the solutions that we recommend are based on the science of decision-making and our understanding of the retirement income market, they are not designed to be definitive or exhaustive. This is because human behaviour is complex, hard to predict, and hugely dependent on context. Much more work would need to be done to identify specific behavioural problems and diagnose the contextual and psychological features contributing to these problems before we can be confident what the best remedies might be. We also need careful monitoring of actual behaviour (not just reported behaviour), as well as rigorous, on-going testing to determine which behavioural interventions are most effective.

We hope this report will provide a solid basis with which to underpin this important work.

Footnote

- ¹ Toombs, B., & Campbell-Hall, V. (2012). Shopping Around for Retirement Income: Unrequested Annuity Illustrations (pp. 1–25). Retrieved from <http://hb.betterregulation.com/external/Research%20Paper%20No.%2031%20-%20Shopping%20around%20for%20Retirement%20Income%20Unrequested%20Annuity%20Illustrations.pdf>
- ² The Pension Advisory Service (personal communication, December 29, 2014)
- ³ Wells, J. (2014). Pension Annuities: A review of consumer behaviour (pp. 1–48). Retrieved from <http://www.fca.org.uk/static/documents/thematic-reviews/annuities-consumer-behaviour-review.pdf>
- ⁴ Worton, S., Blackburn, G., & Whitehead, F. (2013). The Annuity Purchasing Process (pp. 1–52). Retrieved from http://www.fs-cp.org.uk/publications/pdf/optimisa_annuities_final_20130708.pdf
- ⁵ Wells, J. (2014). Pension Annuities: A review of consumer behaviour (pp. 1–48). Retrieved from <http://www.fca.org.uk/static/documents/thematic-reviews/annuities-consumer-behaviour-review.pdf>
- ⁶ Dale, S. (2014, October 10). Just 2.5% take up pensions guidance in L&G pilot. Retrieved January 26, 2015 from <http://www.moneymarketing.co.uk/news-and-analysis/pensions/just-25-take-up-pensions-guidance-in-lg-pilot/2015127.article>
- ⁷ Jones, R (2015, February 13). Pensions firm says new freedoms will lead to bad decisions. Retrieved February 16, 2015 from: <http://www.theguardian.com/money/2015/feb/12/pensions-firm-says-new-freedoms-will-lead-to-bad-decisions>
- ⁸ Worton, S., Blackburn, G., & Whitehead, F. (2013). The Annuity Purchasing Process (pp. 1–52). Retrieved from http://www.fs-cp.org.uk/publications/pdf/optimisa_annuities_final_20130708.pdf
- ⁹ Wells, J. (2014). Pension Annuities: A review of consumer behaviour (pp. 1–48). Retrieved from <http://www.fca.org.uk/static/documents/thematic-reviews/annuities-consumer-behaviour-review.pdf>
- ¹⁰ Financial Conduct Authority. (2014). Thematic Review of Annuities (pp. 1–34). Retrieved from <http://www.fca.org.uk/static/documents/thematic-reviews/tr14-02.pdf>
- ¹¹ *ibid*
- ¹² Dispatches research reveals pension truth. (2015, January 12). Retrieved January 26, 2015, from http://www.channel4.com/info/press/news/dispatches-research-reveals-pension-truth#_ftn1
- ¹³ Magill, T. (2014, November 13). Defined Contribution Pensions survey. Retrieved January 27, 2015, from <https://www.ipsos-mori.com/researchpublications/researcharchive/3485/Defined-Contribution-Pensions-survey.aspx>
- ¹⁴ Association of British Insurers. (2014). ABI Response to the FCA's Retirement Market Study Call for Evidence - following revised Terms of Reference (pp. 1–8).
- ¹⁵ Crouch, K., Sparham, I., Allen, G., Waring, D., Wood, F. and Levy, R., (2014) Retirement choices: measuring the effectiveness of the code of conduct following its implementation. Retrieved from https://www.abi.org.uk/~/_media/Files/Documents/Publications/Public/2014/Pensions/Retirement%20Choices%20Measuring%20the%20effectiveness%20of%20the%20code%20of%20conduct%20following%20its%20implementation.pdf
- ¹⁶ Karlsson, N., Loewenstein, G., & Seppi, D. (2009). The ostrich effect: selective attention to information. *Journal of Risk and Uncertainty*, 38, 95–115. Retrieved from http://wpweb2.tepper.cmu.edu/facultyAdmin/upload/ppaper_61264983153898_ostrich_effect.pdf

- ¹⁷ Rippetoe, P., & Rogers, R. (1987). Effects of components of protection-motivation theory on adaptive and maladaptive coping with a health threat. *Journal of Personality and Social Psychology*, 52(3), 596–604. Retrieved from <http://psycnet.apa.org/journals/psp/52/3/596/>
- ¹⁸ Dymond, S., & Roche, B. (2009). A Contemporary Behavior Analysis of Anxiety and Avoidance. *The Behavior Analyst*, 32(1), 7–27. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2686994/>
- ¹⁹ Hoorens, V., & Harris, P. (1998). Distortions in reports of health behaviors: The time span effect and illusory superiority. *Psychology & Health*, 13(3), 451–466. doi:10.1080/08870449808407303
- ²⁰ Svenson, O. (1981). Are We All Less Risky and More Skillful Than Our Fellow Drivers? *Acta Psychologica*, 47, 143–148. Retrieved from <http://heatherlench.com/wp-content/uploads/2008/07/svenson.pdf>
- ²¹ Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' Perceived Chances For Success. *Journal of Business Venturing*, 3(2), 97–108. doi:10.1016/0883-9026(88)90020-1
- ²² Sabelhaus, J., Bogdan, M. & Holden, S. (2008). Defined Contribution Plan Distribution Choices at Retirement: A Survey of Employees Retiring Between 2002 and 2007. Investment Company Institute. Washington, DC. Retrieved from http://www.ici.org/pdf/rpt_08_dcdd.pdf
- ²³ Dalbar, Inc. (2014). Dalbar's 20th Annual Quantitative Analysis of Investor Behavior: 2014 Advisor Edition. Dalbar. Boston, MA. Retrieved from <http://grandwealth.com/files/DALBAR%20QAIB%202014.pdf>
- ²⁴ Gardner, J. & Wadsworth, M. (2004). Who Would Buy an Annuity?: An Empirical Investigation. Watson Wyatt Technical Paper Series, Ref: 2005-0254. Retrieved from <http://investisseurautonome.info/PDF-Downloads/PLACEMENTS-ALTERNATIFS/doc.1046-%20Gardner%202004%20annuities.pdf>
- ²⁵ Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185(4157), 1124–1131. Retrieved from <http://www.sciencemag.org/content/185/4157/1124.short>
- ²⁶ Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185(4157), 1124–1131. Retrieved from <http://www.sciencemag.org/content/185/4157/1124.short>
- ²⁷ Combs, B., & Slovic, P. (1979). Newspaper Coverage of Causes of Death. *Journalism & Mass Communication Quarterly*, 56(4), 837–849. doi:10.1177/107769907905600420
- ²⁸ FCA. (2014). Retirement income market study: Interim Report, (December 2014), pg. 5
- ²⁹ FCA. (2014). Retirement income market study: Interim Report, (December 2014), pg. 45
- ³⁰ The Pension Advisory Service (personal communication, December 29, 2014)
- ³¹ Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185(4157), 1124–1131. Retrieved from <http://www.sciencemag.org/content/185/4157/1124.short>
- ³² [i] Gardner, J. & Wadsworth, M. (2004). Who Would Buy an Annuity?: An Empirical Investigation. Watson Wyatt Technical Paper Series, Ref: 2005-0254. Retrieved from <http://investisseurautonome.info/PDF-Downloads/PLACEMENTS-ALTERNATIFS/doc.1046-%20Gardner%202004%20annuities.pdf>
- ³³ Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels. *Journal of Consumer Research*, 35(3), 472–482. doi:10.1086/586910. Retrieved from <http://assets.csom.umn.edu/assets/118359.pdf>

- ³⁴ Perkins, H., Haines, M., & Rice, R. (2005). Misperceiving the College Drinking Norm and Related Problems : A Nationwide Study of Exposure to Prevention Information, Perceived Norms and Student Alcohol Misuse. *Journal of Studies on Alcohol and Drugs*, (July), 470–478. Retrieved from http://www.jsad.com/jsad/authdownload/Misperceiving_the_College_Drinking_Norm_and_Related_Problems_A_Nationwide_/959.html
- ³⁵ Schultz, P., & Nolan, J. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18(5), 429–434. Retrieved from <http://pss.sagepub.com/content/18/5/429.short>
- ³⁶ Huh, Y. E., Vosgerau, J., & Morewedge, C. K. (2014). Social Defaults: Observed Choices Become Choice Defaults. *Journal of Consumer Research*, 41(3), 746–760. doi:10.1086/677315. Retrieved from <http://careyorewedge.com/papers/SocialDefaults.pdf>
- ³⁷ Aronson, E., Wilson, T. D., & Akert, R. M. (2005). *Social Psychology* (5th edition). Upper Saddle River, NJ: Prentice-Hall.
- ³⁸ Campbell, J. D., & Fairey, P. J. (1989). Informational and normative routes to conformity: The effect of faction size as a function of norm extremity and attention to the stimulus. *Journal of Personality and Social Psychology*, 57(3), 457–468. doi:10.1037//0022-3514.57.3.457
- ³⁹ Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51(3), 629–636. doi:10.1037/h0046408
- ⁴⁰ Sirois, F., & Pychyl, T. (2013). Procrastination and the Priority of Short Term Mood Regulation: Consequences for Future Self. *Social and Personality Psychology Compass*, 2, 115–127. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/spc3.12011/full>
- ⁴¹ Schouwenburg, H., & Groenewoud, J. (2001). Study motivation under social temptation; effects of trait procrastination. *Personality and Individual Differences*, 30, 229–240. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0191886900000349>
- ⁴² Pychyl, T., Lee, J., Thibodeau, R., & Blunt, A. (2000). Five Days of Emotion: An Experience Sampling Study of Undergraduate Student Procrastination. *Journal of Social Behavior and Personality*, 15(5), 239–254. Retrieved from <http://psycnet.apa.org/psycinfo/2002-10572-019>
- ⁴³ Milkman, K. L., Rogers, T., & Bazerman, M. H. (2009). Highbrow Films Gather Dust: Time-Inconsistent Preferences and Online DVD Rentals. *Management Science*, 55(6), 1047–1059. doi:10.1287/mnsc.1080.0994. Retrieved from <http://www.hbs.edu/faculty/Publication%20Files/07-099.pdf>
- ⁴⁴ Financial Conduct Authority. (2014). Retirement income market study: Interim Report, (December), pg. 44-45
- ⁴⁵ Association of British Insurers. (2014). ABI Response to the FCA's Retirement Market Study Call for Evidence - following revised Terms of Reference, (July), 1–8.
- ⁴⁶ Dale, S. (2014, October 10). Just 2.5% take up pensions guidance in L&G pilot. *Money Marketing*. Retrieved January 16, 2015. Retrieved from <http://www.moneymarketing.co.uk/news-and-analysis/pensions/just-25-take-up-pensions-guidance-in-lg-pilot/2015127.article>
- ⁴⁷ Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117(2), 440–63. doi:10.1037/a0018963
- ⁴⁸ Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology*, 17(2), 83–95. doi:10.1016/S1057-7408(07)70013-X. Retrieved from <http://psych.nyu.edu/trope/lab/publications/Tropeetal2007.pdf>

- ⁴⁹ Financial Conduct Authority. (2014). Retirement income market study: Interim Report, (December), pg. 38
- ⁵⁰ Hershfield, H. A. L. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L. E. O., Carstensen, L. L., & Bailenson, J. N. (2011). Increasing Saving Behavior Through Age-Progressed Renderings of the Future Self, 2437. Retrieved from http://www.dangoldstein.com/papers/Hershfield_Goldstein_et_al_Increasing_Saving_Behavior_Age_Progressed_Renderings_Future_Self.pdf
- ⁵¹ Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the “Planning Fallacy”: Why People Underestimate Their Task Completion Times. *Journal of Personality and Social Psychology*, 67(3), 366–381. Retrieved from <http://psycnet.apa.org/journals/psp/67/3/366/>
- ⁵² Kahneman, D., & Tversky, A. (1979). Intuitive prediction: Biases and corrective procedures. *Management Science*, 12, 313-327.
- ⁵³ Connolly, T., & Dean, D. (1997). Decomposed versus holistic estimates of effort required for software writing tasks. *Management Science*, 43(7), 1029–1045. Retrieved from <http://pubsonline.informs.org/doi/abs/10.1287/mnsc.43.7.1029>
- ⁵⁴ Buehler, R., Griffin, D., & MacDonald, H. (1997). The Role of Motivated Reasoning and Optimistic Time Predictions. *Personality and Social Psychology Bulletin*. 23(3), 238–247. Retrieved from <http://psp.sagepub.com/content/23/3/238.short>
- ⁵⁵ Byram, S. J. (1997). Cognitive and motivational factors influencing time prediction. *Journal of Experimental Psychology: Applied*, 3(3), 216–239. doi:10.1037//1076-898X.3.3.216
- ⁵⁶ Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2009). The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment. NBER Working Paper, (15361). Retrieved from <http://www.nber.org/papers/w15361>
- ⁵⁷ Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology*, 79(6), 995–1006. doi:10.1037//0022-3514.79.6.995. Retrieved from http://www.columbia.edu/~ss957/articles/Choice_is_Demotivating.pdf
- ⁵⁸ Iyengar, S.S., Huberman, G., Jiang, W., 2004. How much choice is too much: determinants of individual contributions in 401K retirement plans. In: Mitchell, O.S., Utkus, S. (Eds.), *Pension Design and Structure: New Lessons from Behavioral Finance*. Oxford University Press, Oxford, pp. 83–95. Retrieved from http://www.columbia.edu/~ss957/articles/How_Much_Choice_Is_Too_Much.pdf
- ⁵⁹ Chernev, A. (2003). Product assortment and individual decision processes. *Journal of Personality and Social Psychology*, 85(1), 151–162. doi:10.1037/0022-3514.85.1.151. Retrieved from http://www.chernev.com/research/articles/Product_Assortment_and_Individual_Decision_Processes_2003.pdf
- ⁶⁰ Ketcham, J. D., Lucarelli, C., Miravete, E. J., & Roebuck, M. C. (2012). Sinking, swimming, or learning to swim in medicare part d. *American Economic Review*, 102(512), 2639–2673. doi:10.1257/aer.102.6.2639. Retrieved from http://eugeniomiravete.com/papers/KLMR_PartD.pdf
- ⁶¹ Haynes, Graeme A. “Testing the boundaries of the choice overload phenomenon: The effect of number of options and time pressure on decision difficulty and satisfaction.” *Psychology & Marketing* 26.3 (2009): 204-212.
- ⁶² Wells, J. (2014). Pension Annuities: A review of consumer behaviour. Financial Conduct Authority, (January).
- ⁶³ Financial Conduct Authority. (2014). Retirement income market study: Interim Report, (December), pg. 43

- ⁶⁴ Ellsberg, Daniel. "Risk, ambiguity, and the Savage axioms." *The quarterly journal of economics* (1961): 643-669. Retrieved from http://www.nsssl.noaa.gov/users/brooks/public_html/feda/papers/eb1961ambiguity.pdf
- ⁶⁵ Becker, S., & Brownson, F. (1964). What Price Ambiguity? or the Role of Ambiguity in Decision-Making. *The Journal of Political Economy*, 72(1), 62-73. Retrieved from <http://www.jstor.org/stable/1828792>
- ⁶⁶ Grinblatt, M., & Keloharju, M. (2001). How Distance, Language, and Culture Influence Stockholdings and Trades. *The Journal of Finance*, LVI(3). Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/0022-1082.00355/abstract>
- ⁶⁷ French, K., & Poterba, J. (1991). Investor diversification and international equity markets. *The American Economic Review*, 81(2). Retrieved from <http://www.nber.org/papers/w3609>
- ⁶⁸ Financial Conduct Authority. (2014). Retirement income market study: Interim Report, (December), pg. 57
- ⁶⁹ Sun, J., Keh, H. T., & Lee, A. Y. (2012). The Effect of Attribute Alignability on Service Evaluation: The Moderating Role of Uncertainty. *Journal of Consumer Research*, 39(4), 831-847. doi:10.1086/665983. Retrieved from <https://productosyprecios.files.wordpress.com/2014/05/the-effect-of-attribute-alignability-on-service-evaluation.pdf>
- ⁷⁰ Markman, A., & Medin, D. (1995). Similarity and Alignment in Choice. *Organizational Behavior and Human Decision Processes*, 63(2), 117-130. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0749597885710679>
- ⁷¹ Zhang, S. H. I., & Markman, A. B. (1998). Overcoming the The Role Early Alignable Entrant and Advantage: Nonalignable of Differences. *Journal of Marketing Research*, 35(4), 413-426.
- ⁷² Mogilner, C., Shiv, B., & Iyengar, S. S. (2013). Eternal Quest for the Best: Sequential (vs. Simultaneous) Option Presentation Undermines Choice Commitment. *Journal of Consumer Research*, 39(6), 1300-1312. doi:10.1086/668534. Retrieved from <https://marketing.wharton.upenn.edu/files/?whdmsaction=public:main.file&fileID=7584>
- ⁷³ Citizens Advice Bureau. Big energy saving week: switch. http://www.citizensadvice.org.uk/index/campaigns/current_campaigns/besw/bigenergysavingweek/besw_switch.htm
- ⁷⁴ Johnson, E. J., & Goldstein, D. G. (2004). Defaults and donation decisions. *Transplantation*, 78(12), 1713-1716. doi:10.1097/01.TP.0000149788.10382.B2. Retrieved from http://www.dangoldstein.com/papers/JohnsonGoldstein_Defaults_Transplantation2004.pdf
- ⁷⁵ The Pensions Regulator. Automatic enrolment: commentary and analysis. (2014). Retrieved from <http://www.thepensionsregulator.gov.uk/docs/automatic-enrolment-commentary-analysis-2014.pdf>
- ⁷⁶ Madrian, B., & Shea, D. (2001). The power of suggestion: inertia in 401(k) participation and saving behavior. *The Quarterly Journal of Economics*, CXVI(November), 1149-1186. Retrieved from <http://www.retirementmadesimpler.org/Library/The%20Power%20of%20Suggestion-%20Inertia%20in%20401%28k%29.pdf>
- ⁷⁷ Choi, J., Laibson, D., Madrian, B., & Metrick, A. (2001). For better or for worse: default effects and 401(K) savings behavior. NBER Working Paper Series, 49. Retrieved from <http://www.nber.org/chapters/c10341.pdf>
- ⁷⁸ Madrian, B., & Shea, D. (2001). The power of suggestion: inertia in 401(k) participation and saving behavior. *The Quarterly Journal of Economics*, CXVI(November), 1149-1186. Retrieved from <http://www.retirementmadesimpler.org/Library/The%20Power%20of%20Suggestion-%20Inertia%20in%20401%28k%29.pdf>
- ⁷⁹ Helson, R., Jones, C., & Kwan, V. S. Y. (2002). Personality change over 40 years of adulthood: hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality and Social Psychology*, 83(3), 752-766. doi:10.1037/0022-3514.83.3.752.

- ⁸⁰ Carstensen, L., Fung, H., & Charles, S. (2003). Socioemotional selectivity theory and the regulation of emotion in the second half of life. *Motivation and Emotion*, 27(2), 103-123. Doi: 10.1023/A:1024569803230.
- ⁸¹ Carstensen, L. L., & Mikels, J. a. (2005). At the Intersection of Emotion and Cognition. *Current Directions in Psychological Science*, 14(3), 117-121. doi:10.1111/j.0963-7214.2005.00348.x. Retrieved from http://emocoglab.depaul.edu/publications/journals/Carstensen&Mikels_2005.pdf
- ⁸² Reed, A., Chan, L., & Mikels, J. (2014). Meta-analysis of the age-related positivity effect: age differences in preferences for positive over negative information. *Psychol Aging*, 29(1), 1-15. doi: 10.1037/a0035194.
- ⁸³ Reed, A. E., Mikels, J. a, & Simon, K. I. (2008). Older adults prefer less choice than young adults. *Psychology and Aging*, 23(3), 671-675. doi:10.1037/a0012772. Retrieved from http://emocoglab.depaul.edu/publications/journals/Reed_Mikels&Simon_2008.pdf
- ⁸⁴ Johnson, M. M. S. (1990). Age differences in decision making: A process methodology for examining strategic information processing. *Journal of Gerontology: Psychological Sciences*, 45, P75-P78.
- ⁸⁵ Löckenhoff CE, Carstensen LL. (2007). Aging, emotion, and health-related decision strategies: Motivational manipulations can reduce age differences. *Psychology and Aging*. 22,134-146.
- ⁸⁶ Mather, M., Knight, M., & McCaffrey, M. (2005). The allure of the alignable: younger and older adults' false memories of choice features. *Journal of Experimental Psychology. General*, 134(1), 38-51. doi:10.1037/0096-3445.134.1.38. Retrieved from <http://www.usc.edu/projects/matherlab/pdfs/MatherKnightMcCaffrey2005.pdf>
- ⁸⁷ Johnson, M. K., & Raye, C. L. (2000). Cognitive and brain mechanisms of false memories and beliefs. In D. L. Schacter & E. Scarry (Eds.), *Memory, brain, and belief*, pp. 25-86. Cambridge, MA: Harvard University Press.
- ⁸⁸ Prull, M., Gabrieli, J., & Bunge, S. (2000). Age-related changes in memory: A cognitive neuroscience perspective. *Handbook of Aging and Cognition*, 91-153.
- ⁸⁹ Zacks, R. T., Hasher, L., & Li, K. Z. H. (2000). Human Memory. *Handbook of Aging and Cognition*. Retrieved from [http://www.psych.utoronto.ca/users/haserlab/PDF/Chapter%20PDFs/2000%20\(Zacks,%20Hasher,%20&%20Li\)%20%20Human%20Memory.pdf](http://www.psych.utoronto.ca/users/haserlab/PDF/Chapter%20PDFs/2000%20(Zacks,%20Hasher,%20&%20Li)%20%20Human%20Memory.pdf)
- ⁹⁰ Hultsch, D. Adult age differences in the organization of free recall. *Developmental Psychology*, Vol 1(6, Pt.1), Nov 1969, 673-678. <http://dx.doi.org/10.1037/h0028271>
- ⁹¹ Helson, R., Jones, C., & Kwan, V. S. Y. (2002). Personality change over 40 years of adulthood: hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality and Social Psychology*, 83(3), 752-766. doi:10.1037/0022-3514.83.3.752.
- ⁹² Finucane, M. L., Slovic, P., Hibbard, J. H., Peters, E., Mertz, C. K., & MacGregor, D. G. (2002). Aging and Decision-making Competence: An Analysis of Comprehension and Consistency Skills in Older Versus Younger Adults Considering Health-plan Options. *Journal of Behavioral Decision Making*, 15(February), 141-164. doi:10.1002/bdm.407
- ⁹³ Johnson, M. M. S. (1990). Age differences in decision making: A process methodology for examining strategic information processing. *Journal of Gerontology: Psychological Sciences*, 45, P75-P78.
- ⁹⁴ Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving. *Journal of Political Economy*, 112(1), S164-S187. doi:10.1086/380085
- ⁹⁵ 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 of the United States of America, 108, 10415–10420. doi:10.1073/pnas.1103170108. Retrieved from <http://www.pnas.org/content/108/26/10415.full.pdf+html>
- ⁹⁶ Haynes, A., Weiser, T., Berry, W., Lipsitz, S., Breizat, A.-H., Dellinger, P., ... Gawande, A. (2009). A surgical safety checklist to reduce morbidity and mortality in a global population. *The New England Journal of Medicine*, 56, 395. doi:10.1016/j.eururo.2009.05.038. Retrieved from http://www.who.int/patientsafety/safesurgery/Surgical_Safety_Checklist.pdf
- ⁹⁷ Nunes, J. C., & Drèze, X. (2006). The Endowed Progress Effect: How Artificial Advancement Increases Effort. *Journal of Consumer Research*, 32(March), 504–512. doi:10.1086/500480. Retrieved from <https://msbfile03.usc.edu/digitalmeasures/jnunes/intellcont/Endowed%20Progress%20Effect-1.pdf>
- ⁹⁸ FCA. (2014). Retirement income market study: Interim Report, (December), 1–99.
- ⁹⁹ Castleman (2013), Summer Nudging: Can Text Messages and Peer Mentor Outreach Increase College-Going Among Low-Income High School Graduates? Retrieved from http://curry.virginia.edu/uploads/resourceLibrary/9_Castleman_SummerTextMessages.pdf
- ¹⁰⁰ England, P. H., & Collins, K. (2014). Increasing Uptake of the NHS Health Check Report of research with Medway Council to optimise the invitation letter DH Behaviour Change Team (February), 1–7. Retrieved from <http://www.healthcheck.nhs.uk/document.php?o=588>
- ¹⁰¹ 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 of the United States of America*, 108, 10415–10420. doi:10.1073/pnas.1103170108. Retrieved from <http://www.pnas.org/content/108/26/10415.full.pdf+html>
- ¹⁰² Leventhal, H., Singer, R., & Jones, S. (1965). Effects of Fear and Specificity of Recommendation Upon Attitudes and Behavior. *Journal of Personality and Social Psychology*, 34(1), 20–29. doi:10.1037/h0022089. Retrieved from <http://psycnet.apa.org/psycinfo/1965-12141-001>
- ¹⁰³ The reference group has been found to be very important when using social norms. For example, an ideas42 and World Bank project to reduce water consumption in Costa Rica found that people saved more water when their consumption was compared to people in their neighbourhood than when it was compared to other people in their town.
- ¹⁰⁴ Hallsworth, M. Berry, D. & Sallis, A. Reducing Missed Hospital Outpatient Appointments Through An Sms Intervention: A Randomised Controlled Trial In A London Hospital. 2014 Division Of Health Psychology Annual Conference. Retrieved from http://abstracts.Bps.Org.Uk/index.Cfm?&Resultstype=abstracts&resultset_id=12039&formdisplaymode=view&frmshowselected=true&localaction=details
- ¹⁰⁵ Bernheim, B. Douglas, and Daniel M. Garrett. 2003. “The Effects of Financial Education in the Workplace: Evidence from a Survey of Households.” *Journal of Public Economics*, 87(7-8): 1487–1519. Retrieved from http://www.ssc.wisc.edu/~scholz/Research/Financial_Education.pdf
- ¹⁰⁶ Lusardi, Annamaria. 2005. “Saving and the Effectiveness of Financial Education.” *Pension Design and Structure: New Lessons from Behavioral Finance*, ed. Olivia Mitchell and Stephen Utkus, Chapter 9. Oxford University Press. Retrieved from http://www.dartmouth.edu/~alusardi/Papers/Financial_Education_2004.pdf
- ¹⁰⁷ Duflo, Esther, and Emmanuel Saez. 2003. “The Role of Information and Social Interactions in Retirement Plan Decisions: Evidence from a Randomized Experiment.” *Quarterly Journal of Economics*, 118(3): 815–842. Retrieved from <http://economics.mit.edu/files/746>
- ¹⁰⁸ Cole, Shawn, Thomas Sampson, and Bilal Zia. 2009. “Financial Literacy, Financial

Decisions, and the Demand for Financial Services: Evidence from India and Indonesia.” Harvard Business School Working Paper 09-117. Retrieved from http://www1.worldbank.org/prem/poverty/ie/dime_papers/1107.pdf

¹⁰⁹ Drexler, A., Fischer, G., & Schoar, A. (2010). Keeping it simple: financial literacy and rules of thumb. doi:10.1257/app.6.2.1. Retrieved from <http://www.mit.edu/~aschoar/KIS%20DFS%20Jan2011.pdf>

¹¹⁰ 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 of the United States of America*, 108, 10415–10420. doi:10.1073/pnas.1103170108. Retrieved from <http://www.pnas.org/content/108/26/10415.full.pdf+html>

¹¹¹ Nickerson, D. W., & Rogers, T. (2010). Do you have a voting plan?: implementation intentions, voter turnout, and organic plan making. *Psychological Science : A Journal of the American Psychological Society / APS*, 21(January), 194–199. doi:10.1177/0956797609359326. Retrieved from https://www3.nd.edu/~dnickers/files/papers/Nickerson_Rogers.PsychSci.2010.pdf

¹¹² Lindley, D. (2014). Dashboards and jam-jars Dashboards and jam-jars Helping consumers with small Defined Contribution pension pots make decisions. Retrieved from http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Policy/money-matters/dashboards_and_jamjars_helping_modest_savers_December_2014.pdf?dtrk=true



42

For more information

Association of British Insurers
51 Gresham Street,
London EC2V 7HQ

020 7600 3333

©Association of British Insurers