FMA
FINANCIAL MARKETS AUTHORITY
TE MANA TATAI HOKOHOKO - NEW ZEALAND

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Using behavioural insights to improve financial capability

Feelings and fears affect financial decision-making, including investment decision-making. This white paper reflects the interest government has in understanding the best ways to improve financial capability. It aims to assist through providing insights that will serve to improve policy design and consumer protection regulation and supervision. It also challenges market participants who already use these insights in customer marketing to explore how they can make consumer choices easier and more effective when they develop and distribute products.

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www.fma.govt.nz

AUCKLAND OFFICE | Level 5, Ernst & Young Building | 2 Takutai Square, Britomart | PO Box 106 672 | Auckland 1143
WELLINGTON OFFICE | Level 2 | 1 Grey Street | PO Box 1179 | Wellington 6140

Contents

About FMA white papers

The Financial Markets Authority (FMA) has decided to publish occasional white papers to set out our thinking, or describe work we are doing, on issues affecting, or arising from, regulation of New Zealand's financial markets. Typically, our white papers will try to provide insight into various aspects of local financial markets and aim to:

- highlight new or emerging risks, and potential regulatory responses
- improve market efficiency
- help consumers to make better investment decisions
- improve understanding of how the FMA regulates conduct.

We hope our white papers will help financial service providers to think about what they do and how they do it. We also hope they will be relevant and interesting to our stakeholders and the broader New Zealand public.

About the authors

Gillian Boyes is the FMA's manager investor capability and has a background in financial services marketing and communication. Dr Marcos Pelenur is leading MBIE's work into understanding and using behavioural insights, drawing on work in his previous role at the UK Behavioural Insights Team. Lee McCauley is a Project Manager for the Behavioural Insights Team, based in Wellington. Before that, he was a senior analyst at New Zealand Treasury, and helped set up a cross-agency group to promote behavioural approaches and techniques in New Zealand. He has represented the New Zealand Government at international behavioural conferences in Sydney and at the OECD in Paris. Together with Dr Michael Duggan (IRD) he is also among the founders of the Behavioural Insights Community of Practice, which now includes up to 120 practitioners working across New Zealand government agencies.

Acknowledgements

Thank you to Joey Au from Treasury who provided valuable insights and suggestions. Thank you also to Nicola Gamble (Commission for Financial Capability), Clare Sims and Christine Tether (MBIE) for providing initial feedback, and the necessary contacts to complete the paper. We are grateful to Professor Elaine Kempson (University of Bristol) for reviewing our interpretation of Financial Services Authority and World Bank findings on aspects of financial capability. We would like to particularly acknowledge the multiple papers and research from the Financial Conducts Authority and the Behavioural Insights Team from which this paper draws.

Foreword

We've all done it. Walked miles to save a few dollars on a purchase one day, then spent over the odds to get the hottest new product the next. We buy expensive consumer goods because we like the brand, rather than logically comparing features because that was too complicated and time-consuming.

Imperfect as it is, such decision-making can save us time, and enable us to function effectively. But our natural behavioural tendencies lead to much poorer outcomes when applied to financial decisions, particularly more complex ones such as how much to save for retirement or which products to choose to help us get there. Such decisions are more important than which phone or TV to buy.

Around the world and in New Zealand, those involved in building financial capability are recognising the importance of understanding what drives consumers' decision-making processes. For the FMA, this is particularly important. This is because we have a regulatory role and responsibility to ensure that providers are enabling New Zealanders to make precisely the decisions they find hardest to make well – investment decisions.

It is also important for policy makers at the Minister of Business, Innovation and Employment (MBIE) and the Inland Revenue Department (IRD). MBIE needs to understand the potential behavioural outcomes behind the frameworks they set up for financial service providers. IRD as central administrator of the KiwiSaver scheme, New Zealand's primary investment vehicle, needs an understanding to feed into, and improve, how KiwiSaver functions overall.

It's why the FMA works closely with the Commission for Financial Capability (CFFC) which uses these behavioural insights to deliver on the much broader mandate to help everyone get ahead financially, and deliver on the broader financial capability goal.

Ultimately, the best time to help New Zealanders focus on making good financial decisions is when they're actually making them. That means the investment and broader financial industry play an essential role. Their disclosures, and their conversations with customers, should help New Zealanders make those good decisions. It is in no-one's interest – and it is certainly not in the interest of fair, efficient and transparent New Zealand financial markets – for any investment decision to be made on the basis of bias or behavioural idiosyncrasy.

Working together, we can better ensure New Zealanders make good decisions.

We are particularly grateful for the input of Dr Marcos Pelenur (MBIE), Michael Duggan (IRD), and Lee McCauley (Behavioural Insights Team) who have all generously donated their time to provide input, and peer review this summary. We look forward to continuing these partnerships as we continue to apply and better understand how to use this behavioural insight knowledge.

Rob Everett
Chief executive

Introduction

In 2015, the government released its 'Building financial capability in New Zealand' priority statement. It recognised building the financial capability of New Zealanders is a priority for the government. Financial capability will help us improve the wellbeing of our families and communities, reduce hardship, increase investment and grow the economy.

Financial capability is about having the financial knowledge, understanding, confidence and motivation to make good financial decisions. It is a broader definition than financial literacy. Financial capability recognises the impact of behaviour – particularly in-built biases that are unconnected with knowledge and skills.

This paper summarises the current understanding of these behavioural biases and influences in retail financial markets. This is important, because without good understanding, the policies government develop, and the products and distribution models industry provide, can lead consumers to make choices that are predictably mistaken.

It also provides an overview of the techniques researchers are using to apply remedies, including examples from New Zealand and overseas.

We hope this paper will be a practical reference for government and industry. It aims to be a source of ideas to encourage use of behaviourally focused approaches that help consumers make better decisions, and a lens to gauge whether these approaches are likely to work.

Our feelings and fears influence our financial decisions

Making financial judgements and decisions is hard. They:

- are complex
- require consumers to assess risk and uncertainty
- require making trade-offs between the present and the future
- can be emotional
- are done infrequently so don't provide opportunities to learn to do them well.

Our preferences, beliefs and the way we make decisions lead us to act (or fail to act) in our own best interests. According to the UK securities regulator, the Financial Conduct Authority (FCA), our financial capability is most influenced by the following biases:

- preferences
- beliefs
- decision-making rules.

Preferences

Our emotions and psychological experiences influence our preferences

We tend to value what's happening now over what might happen later. For example, we overspend on credit cards and pay down debt less than we should. We procrastinate and postpone tasks that require even a little effort, for example, switching current accounts. This is called a present bias.

We often try to assess the value of something relative to a reference point, but because we're imperfect statisticians we confuse proportions, differences and absolute values. For example, we find it hard to sell our home below the price we bought it for, even if the price is now above market value. We are reference dependent.

Emotional responses are a powerful force in decision making. We buy insurance to avoid regret, even if it is expensive (we pay 'regret premium'). We often don't sort out a debt problem to avoid stress, and because we don't want to decide.

We are also hard-wired to fear losses. This means it's easier to make choices based on risks we know, rather those we don't. For example, many of us would think about switching to a less-risky KiwiSaver fund if the market dips significantly, even though that would crystallise the loss. We struggle with ambiguity and our loss aversion.

Beliefs

Our beliefs about the likelihood of events and our own abilities are often wrong

We tend to be overconfident about our own abilities. We also tend to have unrealistic optimism. For example, we might disregard overdraft charges when choosing a current account because we are confident we'll never be in overdraft.

We are very prone to making predictions based on scant observations. For example, we might assess financial advice as good on the basis of a few successful investments, even though those could reflect pure luck. We over extrapolate.

We are much better at living in the present than thinking about the future. We naturally expect our current feelings, attitudes and preferences to be unchanged. That makes it hard for us to estimate how much our preferences and circumstances will change as we grow older. As a result, we can't accurately estimate how much to save. This is known as a projection bias.

Decision-making rules

We use decision-making short cuts when assessing available information

One strategy many of us adopt with our money is to allocate it to different 'mental budgets'. But this can lead to poor decision-making if we can't get past our mental labels. For example, if our day-to-day money runs out, but there is still money in the 'holiday' account, we may find it difficult to use the holiday money instead. Our mental accounting and narrow-framing biases also cause us to make decisions in isolation rather than relate them to other decisions which are inter-related. For example, we may choose an individual investment product based on one factor, such as its risk indicator rather than considering it as part of a whole investment portfolio.

The context and presentation of information affects how we interpret it. For example, we may under estimate the impact of fees for investment products and services because they are usually quoted in percentage terms rather than dollars. These are biases of **framing, salience and limited attention.**

We often simplify our most complex decisions by using **rules of thumb** (**heuristics**) such as choosing the most familiar brand, avoiding the most ambiguous, or sticking to the status quo. We also simplify complex concepts. For example, many people 'diversify' their superannuation savings by splitting them equally across their preferred funds rather than making a careful allocation decision.

Finally, we'll often make a decision because a salesperson is likeable, or because others in our social circle are doing it. For example, we might follow financial advice because the adviser is likeable, and is of similar age or outlook to us.

These biases of preference, beliefs and decision-making have been summed up by the FCA as follows.

Cause of bias	Bias type
Preferences	• Present bias • Reference dependence, relative and absolute risk confusion • Regret and other emotions • Ambiguity and loss aversion
Beliefs	• Overconfidence • Over extrapolation • Projection
Decision making	• Mental accounting and narrow framing • Framing, salience and limited attention • Decision-making rules of thumb • Persuasion and social influence

Hard decisions equal more behavioural bias

Work originally conducted for the UK Financial Services Authority (precursor to the FCA) and developed further by World Bank research across 10 countries has consistently identified four key dimensions of financial capability:

1. day-to-day money management
2. planning for future needs
3. choosing and using appropriate products
4. being informed / getting help.

Most people can manage money day-to-day quite well. However, most people have less capability in the other three areas.

Traditional education and knowledge and skill building can improve capability in the areas of day-to-day money management and planning for future needs. But the reasons for low capability are complex and varied. They have more to do with behavioural bias, than knowledge or skills. Traditional training and education is far less effective in improving these elements of capability. 'Correct' biases can't be taught.

Evidence tells us that improving capability in planning, choosing and being informed, in particular, requires more innovative and behaviourally-based approaches. Social marketing, simplifying products, default mechanisms, and more proactive consumer protection regulation are approaches that have been shown to help deal with low levels of capability.

Understanding consumer behaviour and influencing factors are key to successful interventions.

Using the TEST framework to influence change

Helping people overcome behavioural biases is complex. Context matters – what works in one situation may not work in another. Examples include:

- financial incentives can backfire if they damage rather than enhance intrinsic motivations
- highlighting important issues can sometimes inadvertently communicate a 'problem behaviour' is widespread, normalising it and leading to copy-cat behaviour
- what people say they will do may not be what they actually do. It's important to be cautious about using intentions or attitudes as a measure of success.

The UK-based Behavioural Insights Team (BIT) has been at the forefront of international research on using what is known about behavioural biases to influence the desired behaviour. The team has developed a simple, pragmatic framework: TEST (Target and define the outcome; Explore – understand the context; Solution – build the intervention; Trial - test, learn and adapt once developed).

1. *Target – define the outcome*

Where possible this should be a quantifiable change in behaviour. Consider:

   a. what is the key metric and whether you can easily gather this
   b. what improvements are needed to justify the project
   c. how much time is required for the change.

2. *Explore – understand the context*

Look at what you are trying to change from the user and the provider's perspective. Consider:

   a. what's affecting behaviour in the particular context/process
   b. whether the service provider can sustain a new way of doing things
   c. how to identify problems and opportunities by using practical examples, and by talking to users to detect what's not readily available
   d. what needs to change on an individual level including:
      i. the skills and knowledge needed
      ii. the opportunities presented
      iii. the social and physical environment
      iv. the drivers that will motivate change such as habits and attitudes.

3. *Solution – build the intervention*

Make your solution, easy, attractive, social and timely (EAST). See more on the EAST framework below.

4. *Trial – test, learn and adapt*

Learning and adapting is an important part of the process. Changing and iterating initial ideas is a recognised part of the process.

Randomised control trials (RCTs) are a way to test effectiveness. This includes using a control group so you can compare the effectiveness of the intervention against what would have happened if nothing has changed. RCTs have been used extensively by BIT and in World Bank research. Regulators have also trialled RCTs. For example the FCA in the UK has published a series of occasional papers presenting the results of field trials including on insurance renewals, add-on insurance, and the impact of reminders to encourage savers to act when rates decrease.

An example of an RCT

How asking people to 'save more tomorrow' can be more effective than asking people to 'save more today'

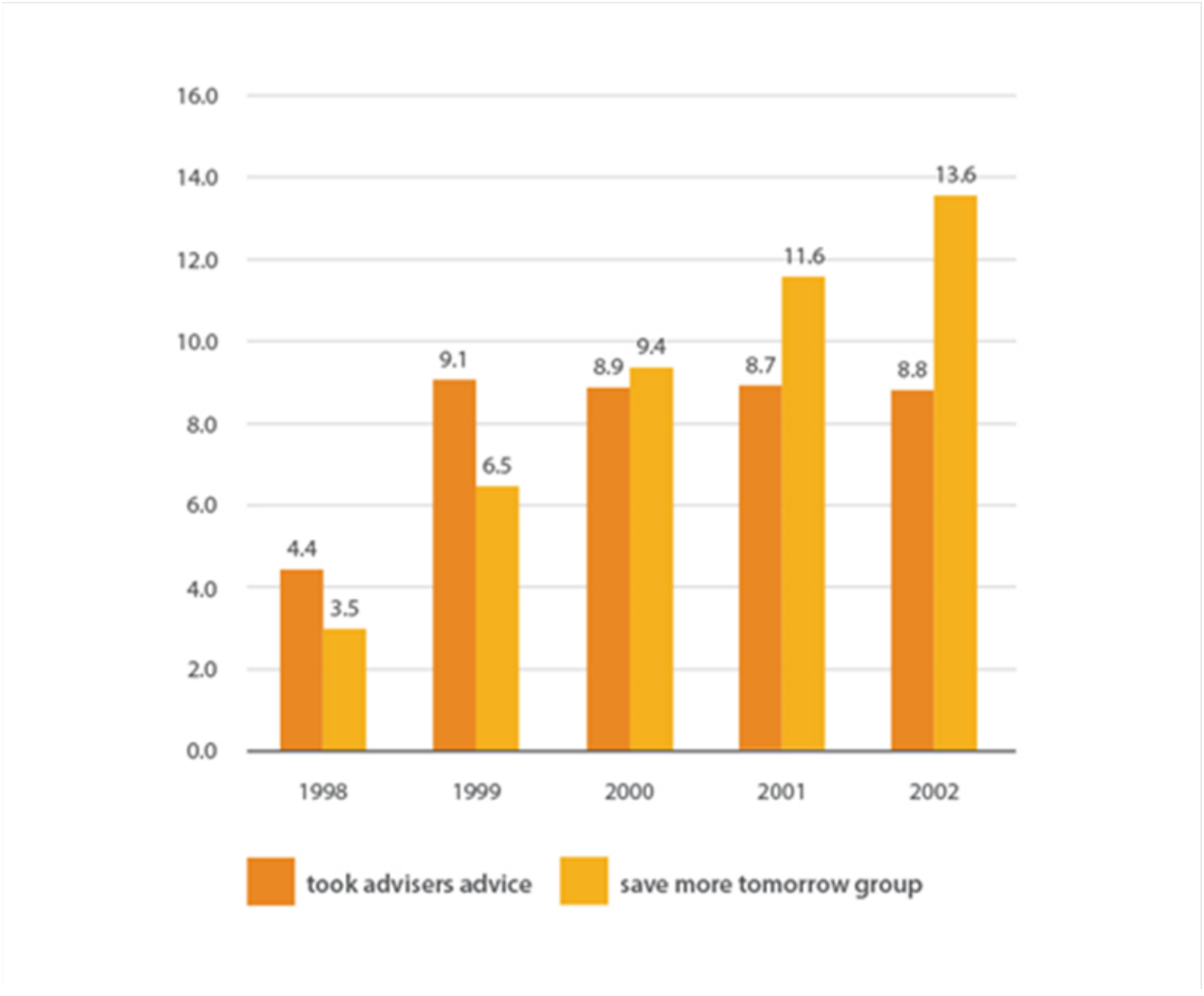
One of the most frequently quoted examples of using behavioural insights to improve financial capability is the 'Save more tomorrow' randomised control trial.

A financial adviser recommended all low savers in a company to increase their contributions straight away. Some people took this advice while others didn't – mainly because they felt, at that time, they couldn't afford to do so.

As an alternative, the researchers then asked those in the second group to increase their payments next year, and the year after that, by a specified percentage ('save more tomorrow'.) The immediate costs, which were the main stumbling block, became delayed and therefore less painful.

After two years this group had already overtaken the group that took the financial advisers' advice. A constant increase in savings had become the new easy default.

Figure 1: Save more tomorrow group's savings rate



Looking EAST for interventions

There are many models for developing interventions. We have described the Behavioural Insight Team's EAST framework, which succinctly captures the principles behind interventions that have been shown to have effective and measurable behavioural change outcomes.

Make it easy

The present bias and our preference for the status quo means we never get around to it despite having every intention of doing something. Small, sometimes, seemingly irrelevant details can make a task more challenging. Some ways to make it 'easier' include:

- harnessing the power of defaults
- reducing the 'hassle factor' of taking up a service
- simplifying messages.

Examples:

- KiwiSaver's design leverages the fact that people have a high level of inertia about savings. Auto-enrolment (with an option to opt-out) is much easier than having to choose to opt-in. Current membership of around 2.5 million members (significantly higher than initial IRD estimates of a 1.4 million membership plateau) demonstrates the success of this approach.
- Some banks give their customers access to personal finance management tools that automatically link to their bank accounts, which encourages better budgeting and planning by removing the need to manually load data.
- New requirements for simplified investment disclosure documents include a standardised key information summary, and a clear, concise and effective standard with strict page limits. This makes it easier for consumers to compare different products.

Key lessons from simplification trials

The Behavioural Insights Team has run numerous trials that test the power of simplifying messages and processes. For example, providing a direct link to a specific form, rather than to the web page holding form, increased response rates from 19% to 23%.

Through their work they've identified five main lessons:

- present key messages early, ideally in the first sentence or subject line
- keep the language simple
- be specific about recommended actions
- provide a single point of contact for responses
- remove all non-essential information for those doing the task.

Make it attractive

We are more likely to act if something is framed the right way and grabs our attention.

Examples:

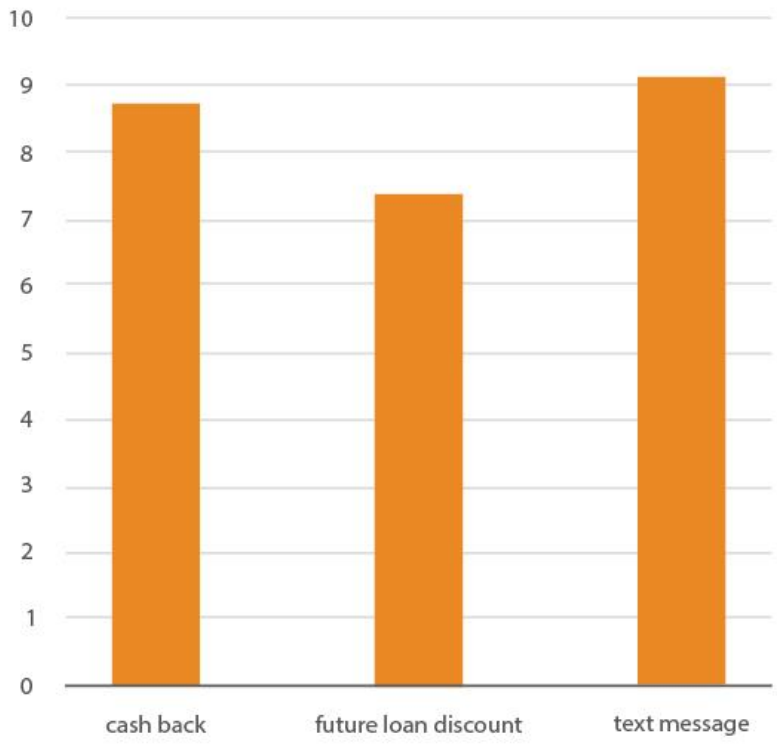
- One KiwiSaver provider encourages customers to read their email newsletters by personalising them with names and account balances. This provider reports open rates of 40%–49%, well in excess of the 20%–25% industry average for email newsletters.

Remembering to pay: Reminders vs financial incentives for loan repayments

Cadena and Schoar (2011) conducted a field experiment in Uganda to find out what kinds of rewards and attention devices might make the most difference. Three incentives were provided to encourage loan repayment behaviour: (1) a cash reward upon completing payments (equivalent to a 25% interest rate reduction on the loan), (2) a 25% interest rate reduction on the next loan taken from the bank and (3) a monthly text message reminder before the loan payment was due.

The results suggested text messages are as effective as the 25% rate reduction in terms of getting customers to repay. The effect was particularly pronounced among younger customers. The authors noted the text messages were significantly cheaper for the bank.

Figure 2: Increased probability of repaying



Make it social

This principle recognises our bias toward emotions and norms in social settings. We are heavily influenced by what those around us say and do. We are much more obliged to see something through when we tell others we are going to do something. The social factors should:

- show what most people desire from a particular behaviour
- use the power of networks
- encourage commitment.

Examples:

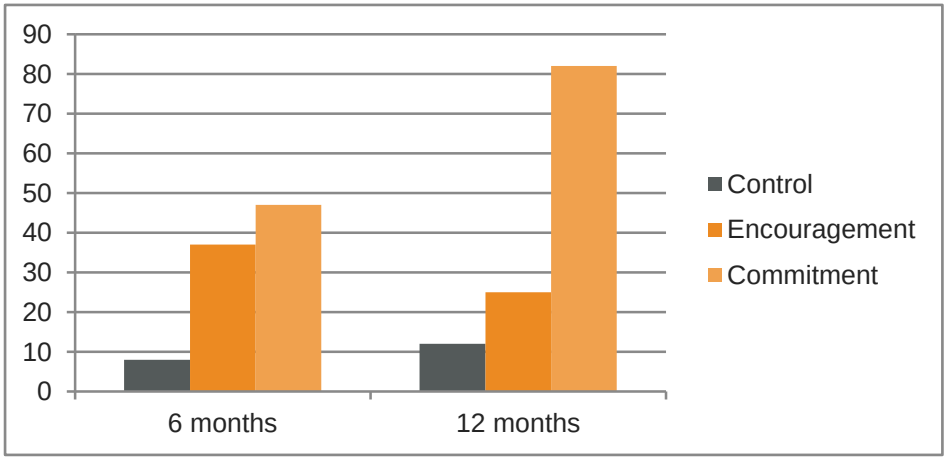
- The FMA and CFFC both leveraged high profile personalities' social media channels to engage New Zealanders during Money Week 2015, increasing the reach of their financial capability messages.
- The Sorted workplace financial capability programme includes an 'open day' where family members are invited in to help seal the commitment from the rest of the household about getting financially sorted for life.

Using commitment devices to encourage saving in the Philippines

The Behavioural Insights Team's 'EAST' paper cites a study by Ashraf, Karlan and Yin. In their study, a rural bank in the Philippines offered a committment account to a random sample of customers. The account enabled them to restrict their right to withdraw money until they reached either a specific month or a savings target (which the individual was free to choose), but offered only the same interest rate as the bank's existing savings account.

Those in the -control group increased their savings by a modest 8% on average in the first six months, and then to a 12% overall increase after one year. Another group received a visit to encourage them to save more. Those in this group increased their savings by 37% in the first six months, but then dropped away. Those offered the commitment account, however, continued to substantially increase their savings, leading to an average increase of 82% overall at the end of the first year.

Figure 3: Percentage change in savings levels relative to baseline



Make it timely

We respond differently to prompts depending on when they occur. Projection biases, narrow framing, reference dependence and other biases and effects mean the same decision made at different times can be made in very different ways. The EAST framework suggests behavioural interventions will be more effective if they:

- prompt people when they are likely to be most receptive
- consider the immediate costs and benefits
- help people plan their response to events.

Examples:

- The FMA has been trialling the use of Google Adwords to promote its investor information on foreign exchange (FX) trading. The FMA's messages on the risks of FX trading appear when consumers do internet searches for FX trading information.
- Research conducted by CFFC and the FMA shows people who have a plan are more likely to feel prepared for their retirement. The effect was consistent across all income levels.
- The FCA is looking at which combinations of product features and information are most likely to cause misperceptions of complex investments. This is relevant to its policy on particular products such as structured deposits.

The effect of presenting fees in different ways

Hastings and Tejeda-Ashton used a survey and experiment with participants in Mexico's privatised retirement investment system to examine how presentation affects the price sensitivity of fees.

When fees were presented in pesos instead of annual percentage rates, workers rated as having lower financial literacy, focused much more on fees when choosing between investment funds. These workers selected funds with lower average fees. The effect was not seen in those with higher financial literacy.

When fees were presented alongside return information, all respondents placed lower weights on fees. This was particularly pronounced for those with lower financial literacy, who placed near zero weight on either fees or returns. They focused instead on the firm's brand. Too much information clouded their decision-making process.

While participants in this experiment were only making hypothetical choices, the authors suggest presenting fees in an easy-to-understand way may be a cheaper alternative to expensive financial literacy programmes.

Future opportunities

Behavioural insights can help us understand why most people struggle to plan for future needs, have difficulty choosing financial products, and fail to make informed decisions.

This paper outlines some straight-forward approaches to behavioural change interventions to help people overcome natural biases. These might be more effective and will often be cheaper than training people to make better financial decisions.

Where relevant, using Randomised control trials (RCTs) to see whether these approaches work offers opportunities for both government and industry. The FMA, for example, can be more precise in detecting, understanding, and helping remedy problems that arise from consumer mistakes. We can do this by providing consumers with knowledge of how behavioural insights work – such as this paper – and by including an evaluation of how the industry uses these techniques in our monitoring work.

For industry, RCTs can give greater confidence that products, processes and marketing and distribution models are cost efficient. Results can also be used to more definitively show regulators that practices are in the best interests of their customers.

As a follow-up to this paper, the FMA and CFFC are both exploring opportunities to run randomised control trials with financial service providers. These will be a first step in publishing local examples of what works and what doesn't. We would greatly welcome providers sharing existing results from similar trials.

Not every intervention can be tested. And not every intervention is good. Firms wittingly and sometimes unwittingly design or market products in ways that can exacerbate the effects of biases.

The FCA has identified that government, particularly regulators, can use consumer understanding to solve behavioural problems in several ways:

1. Requiring firms to provide information in a specific way or prohibit specific marketing materials or practices
2. Requiring firms to adjust how choices are presented to consumers
3. Requiring products to be promoted or sold only through particular channels or only to certain types of clients
4. Banning specific product features or whole products that appear designed to exploit, or require products to contain specific features

Less interventionist approaches are preferable because they don't constrain consumer choices. It is also preferable to innovate to improve financial capability of consumers.

If we know complexity leads to inertia or reliance on simple but fallible rules of thumb, policy makers and providers need to work together to reduce that complexity. If risk aversion leads to poor decision making, we need to better explain, or reduce, risk.

By sharing our experience of using behavioural insights, we hope to be more effective in improving New Zealanders' financial capability.

Appendix

A checklist for understanding the context of financial decisions:

Easy

- Will the individual be making an active or an automatic, passive choice?
- How many options are available? What is the default option if an individual decides to do nothing?
- What knowledge or expertise is needed to make a decision?
- Does the decision require exertion of willpower or self-control (such as in the domains of saving, or paying down debt)?
- Is there an application process, and is it difficult to navigate?

Attractive

- Is the decision important to the individual or does it receive little attention?
- What are the incentives? Which ones are most prominent? Which ones are less prominent?
- What are the associated costs (financial, social, psychological)?

Social

- Are peers a major source of information?
- Is the decision made in isolation or in a social environment?
- Is the decision influenced by what is presented in the media or by expert opinions?

Timing

- What moments or events motivate an individual to act on the decision?
- Is feedback available, and is it received immediately?
- How is information or knowledge communicated to the individual (visually, verbally, in text)?
- Are the benefits of making a good decision delayed or experienced immediately?
- Is the decision usually made when the individual is in an emotional state?
- Does the information flow sequentially? What information is presented first? Presented last?

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