ASIC

Australian Securities & Investments Commission

REPORT 230

Financial literacy and behavioural change

March 2011

About this report

This report, which was compiled in 2008 and updated in 2010, takes stock of what ASIC and others have learned about financial literacy to date. In particular, it covers available research findings about:

- what people know and don't know
- what people do, don't do and why, and
- how to change behaviour.

About ASIC regulatory documents

In administering legislation ASIC issues the following types of regulatory documents.

Consultation papers: seek feedback from stakeholders on matters ASIC is considering, such as proposed relief or proposed regulatory guidance.

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- explaining when and how ASIC will exercise specific powers under legislation (primarily the Corporations Act)
- explaining how ASIC interprets the law
- describing the principles underlying ASIC's approach
- giving practical guidance (e.g. describing the steps of a process such as applying for a licence or giving practical examples of how regulated entities may decide to meet their obligations).

Information sheets: provide concise guidance on a specific process or compliance issue or an overview of detailed guidance.

Reports: describe ASIC compliance or relief activity or the results of a research project.

Disclaimer

This document is a research report and does not contain ASIC policy.

Contents

Key findings

What Australians know

- Australians have differing attitudes to financial matters and varying levels of financial knowledge.
- Overall, people seem to be more knowledgeable and confident about simple, familiar finance topics (e.g. budgeting, credit, savings and debt) and less knowledgeable and confident about more complex, unfamiliar topics (e.g. investing, superannuation and saving for retirement).
- While they differ in terms of scope, most of the local studies seeking to measure financial literacy collect information via surveys. Some rely on subjective tests, some on objective tests and others on both.
- Recently there has been growing recognition of the value of using both objective and subjective tests because they help us identify gaps between what people *believe* they know and what they *actually* know.

What people do

- At a time when consumers are being asked to make more financial decisions than ever before, the environment in which they are making those decisions is becoming increasingly complex.
- Knowledge alone is not enough. People don't always act in their own best interests (e.g. by not engaging at all or by making 'bad' decisions).
- Behavioural studies and ASIC's own research identifies a range of related barriers that prevent people from making good financial decisions. These include information and choice overload, complexity and uncertainty, time effects and pressures, over (and under) confidence, self-control and 'framing' (i.e. how information is presented).
- Research in this area, particularly applied research in 'real' financial settings, is still developing. More (and better) research is necessary to understand the drivers of action/inaction.

How to change behaviour

- Although the financial literacy movement has gained momentum, there remains little reliable, conclusive research about whether financial literacy campaigns and programs work (i.e. whether they result in sustained changes in behaviour and improved financial outcomes).
- Best-practice principles for program and evaluation techniques are still developing, and it is widely recognised that both are inherently difficult.
- In the interim, the established principles of social marketing, frequently used in health and environmental fields, provide a practical 'big picture' framework for financial literacy-based behavioural change initiatives.

Figure 1: The financial literacy environment

***Less* confident/ knowledgeable**

- Investing
- Superannuation
- Saving for retirement

***More* confident/ knowledgeable**

- Budgeting
- Credit
- Savings
- Debt

Common barriers to making good financial decisions

- ✕ **People are ‘normal’ not ‘rational’**
- ✕ **Information and choice overload**
- ✕ **Complexity and uncertainty**
- ✕ **Time factors and pressures**
- ✕ **Over (and under) confidence**
- ✕ **Self-control**
- ✕ **Framing (how information is presented)**

Key social marketing principles that can help change behaviour

- ✓ **Take advantage of existing campaigns**
- ✓ **Target the people most ready for action**
- ✓ **Promote single, doable behaviours**
- ✓ **Identify and remove barriers**
- ✓ **Bring real benefits into the present**
- ✓ **Highlight costs of competing behaviours**
- ✓ **Promote a tangible object or service**
- ✓ **Consider non-monetary incentives**
- ✓ **Have fun with messages**
- ✓ **Use media channels at the point of decision making**
- ✓ **Get commitments and pledges**

What people *think* they know

is greater than

What people *actually* know

A Background to the report

Key points

The primary aim of this report is to take stock of what ASIC has learned about financial literacy to date to inform the national financial literacy strategy.

Most of the information in this report was collected in 2008 from Australian and international sources, including public websites, journal articles and unpublished research reports. The report was then updated in 2010.

Financial literacy means different things to different people.

Purpose

On 1 July 2008, the functions of the Financial Literacy Foundation moved to ASIC.

The primary aim of this report is to take stock of what we have learned about financial literacy to date to inform the national financial literacy strategy. In particular, we seek to understand:

- what people know and don't know (see Section B)
- what people do, don't do and why (see Section C)
- how to change behaviour (see Section D).

We then want to use this information to help guide our financial literacy priorities and program design.

We believe that improving knowledge alone, however, will not be enough to achieve better financial outcomes for all Australian financial consumers and retail investors.

As one response in the strategy, we are looking to develop a generic advice/guidance service for the mass market, which would give Australians access to free, quality independent financial guidance and back-up aids to help them implement and stick to the plan.

In assessing the need for such a service, this report also covers:

- who does and doesn't use a financial planner
- why more people don't use financial planners.

For a summary of available research about the use of financial planners, see Appendix 2.

Method

Two ASIC researchers compiled this report in 2008. The information collected was sourced from public websites, journal articles and unpublished research reports. A third ASIC researcher updated the report in mid-2010.

The scope of the information presented is contained in the following ways:

- The researchers mostly limited their information search to research conducted in the last five years, extending it in special cases (e.g. where there were gaps in more recent sources or the research was groundbreaking).
- Section B was mainly limited to Australian sources while Sections C and D included international sources, particularly where there were gaps locally.
- For reasons of brevity, Section C focuses on a few core pieces of research. However, the background reading for this section encompassed a more comprehensive body of research.
- Section D primarily focuses on finance-based and generic behavioural change references (although limited reference is also made to examples from the health and environmental fields, where considerable social marketing work has occurred).

What is financial literacy?

> Financial literacy means different things to different people, and this is reflected most clearly in the many definitions used in the literature. For some it is quite a broad concept, encompassing an understanding of economics and how household decisions are affected by economic conditions and circumstances. For others, it focuses quite narrowly on basic money management: budgeting, saving, investing and insuring (Worthington, 2006, p. 4).

Those who use the various terms ‘financial literacy’, ‘financial education’ and ‘financial capability’ do not always define what they mean by these terms.

‘Financial education’ is the terminology used by most jurisdictions when framing initiatives as solutions to low financial literacy (exceptions include the United Kingdom, which focuses on ‘financial capability’). The Organisation for Economic Co-operation and Development (OECD) (2005) broadly defines ‘financial education’ as follows:

> Financial education is the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial wellbeing. Where:
>
> - information involves providing consumers with facts, data, and specific knowledge to make them aware of financial opportunities, choices, and consequences;

- instruction involves ensuring that individuals acquire the skills and ability to understand financial terms and concepts, through the provision of training and guidance; and
- advice involves providing consumers with counsel about generic financial issues and products so that they can make the best use of the financial information and instruction they have received (pp. 13–14).

In an Australian context, Fear (2008) has described a three-fold definition of financial literacy derived from the work of the United States Federal Reserve:

> (1) “being knowledgeable, educated, and informed” about “managing money and assets, banking, investments, credit, insurance and taxes”;
>
> (2) “understanding the basic concepts underlying the management of money and assets”, such as “the time value of money in investments and the pooling of risks in insurance”; and
>
> (3) “using that knowledge and understanding to plan and implement financial decisions” (Hogarth, 2002, cited in Fear, 2008, p. 12).

Fear highlighted the importance of (3) in particular, because it refers to the need to translate knowledge into action. Fear argues that this transition has an emotional, psychological dimension, as well as a rational, cognitive one:

> How well they are able to do this depends on both the cognitive elements of financial literacy (e.g. do they understand the relevant financial concepts?) and the psychological elements (e.g. do they enjoy making financial decisions or find it unpleasant?) (Fear, 2005, p. 12).

In Australia, the survey of adult financial literacy by the Australia and New Zealand Banking Group Limited (ANZ)[1] has been the first and largest national survey used to find out the financial literacy levels of all Australians. The ANZ survey defines financial literacy as ‘the ability to make informed judgements and to take effective decisions regarding the use and management of money’ (2008, p. 6). The study argues that high levels of financial literacy enable people to:

> Make informed and confident decisions on all aspects of their budgeting, spending, saving and planning for the future as well as on their use of financial products and services such as everyday banking, borrowing and investing (ibid.).

Other observations about financial literacy have focused less on the practicalities of dealing with money and more on making better choices and setting appropriate goals:

> Financial literacy is not just about the mechanics of checking bank accounts, or even budgeting for future savings. The definition can be expanded to include learning about selecting between a multiplicity of choices, setting personal financial goals, and reflecting on values about money (Criddle, 2006, p. 4).

[1] ANZ (2008), ANZ (2005), ANZ (2003).

The definition used for the purposes of the National Consumer and Financial Literacy Framework, which guides the teaching of financial literacy in Australia's schools, is:

> Consumer and financial literacy is the application of knowledge, understandings, skills and values in consumer and financial contexts and the related decisions that impact on self, others, the community and the environment (MCEECDYA, 2009, p. 1).

Finally, some have noted the dual responsibility of governments, industry and others to both enhance people's capacity to understand information but also to 'ensure that their information matches people's capacity to understand it' (Fear, 2008, p. 56).

B What Australians know

Key points

Australians have differing attitudes to financial matters and varying levels of financial knowledge.

Overall, people seem to be more knowledgeable and confident about simple, familiar finance topics such as budgeting, credit, savings and debt, and less knowledgeable and confident about more complex, unfamiliar topics such as investing, superannuation and saving for retirement.

While they differ in terms of scope, most of the local studies seeking to measure financial literacy collect information via surveys. Some rely on subjective tests, some on objective tests and others on both.

Recently there has been growing recognition of the value of using both objective and subjective tests because, among other things, they help us identify gaps between what people *believe* they know and what they *actually* know.

In the Australian population aged 14+:

96.8%	have a deposit account
67.4%	invest in superannuation or annuities
63.3%	have a major card (credit, debit or charge)
37.8%	have a loan (e.g. home loan, mortgage on investment property, bridging loan, home equity loan, personal loan, lease, etc)
21.1%	directly own shares
10.0%	have invested (managed investment/superannuation) through a financial planner/adviser
4.7%	invest in managed investments

(Roy Morgan Research, 2010a, 12 months to March 2010, people aged 14 and over).

Assessing financial knowledge

What is 'knowledge'?

When describing people's knowledge of financial products and services, researchers use terms such as 'ability', 'understanding', 'attitudes', 'awareness' and 'skills' interchangeably.

The word 'know', in the Australian Oxford Dictionary (2006) is defined as:

> 1—have in one's mind or memory as a result of experience, learning, or information. 2—Feel certain. 3—Recognise (a person); have had social contact with; be familiar with (a place). 4—Recognise with certainty. 5—Understand and be able to use (a subject, language or skill). 6—Experience; be subject to (p. 460).

How is knowledge assessed?

Research assessing people's level of financial knowledge ranges from large-scale financial literacy surveys to smaller-scale industry studies focusing on specific financial products or services. Similarly, while some studies examine the general population,[2] other studies examine specific target groups.[3]

The available studies have used various methods to measure people's level of financial knowledge, most commonly via survey instruments such as phone questionnaires.[4] Within these surveys, literacy levels are measured via subjective, objective and combination tests.

Subjective tests rely on people's perceptions, attitudes and self-assessed level of financial knowledge or capability. For example, the Financial Literacy Foundation (FLF, 2007a) commissioned a survey of 7500 Australians aged 12 to 75. The survey asked people to self-assess their ability and understanding of financial topics such as budgeting, saving, investing, credit and debt, planning for retirement, protecting money, and information and advice. For example, one question was 'Using a scale of agree and disagree, to what extent would you say that you have the ability and understanding to budget day-to-day finances?'

Objective tests rely on more neutral methods to measure people's knowledge, such as using 'quiz-like' or 'true/false' questions to test people's understanding of financial terms and/or their ability to apply financial concepts to particular situations. For example, the Commonwealth Bank Foundation (CBF, 2004) commissioned a survey of 5000 Australians aged 16 to 65. The survey used 20 multiple-choice items to assess 'each respondent's ability to make financial decisions, rather than testing knowledge of financial information' (p. 2).

Combination tests use both 'subjective' and 'objective' measures. For example, the ANZ conducted surveys in 2008 (ANZ, 2008), 2005 (ANZ, 2005) and 2003 (ANZ, 2003) to measure people's numeracy, financial understanding, financial competence, and financial responsibility. The 2008 survey asked questions to test both financial knowledge (e.g. 'Which one of the following is most likely to give someone a bad credit rating?') as well as respondents' perceptions and opinions (e.g. 'Do you find understanding an annual statement for a superannuation fund easy, very easy, difficult or very difficult?').

In 2005, in a report about how to improve financial literacy, the OECD found that combining both 'subjective' and 'objective' measures helps reveal

[2] For example, ANZ (2008); FLF (2007a); CBF (2004); Mercer Wealth Solutions (MWS) (2006).
[3] For example, Women's Information and Referral Exchange Inc. (WIRE) (2007, 2010).
[4] Other methods include focus groups and depth interviews.

the gaps between what people believe they know and what they actually know:

> Objective tests of financial concepts are a better way of measuring financial literacy than are surveys which ask respondents to provide a self-assessment of their understanding of financial issues. However, a comparison of consumers' self-assessment with their response to objective questions that test their financial understanding could indicate to policymakers where the largest discrepancies are between what consumers believe they know and what they actually know (OECD, 2005, pp. 44–45).

Regardless of the method used, financial literacy findings sometimes conflict, both within and across individual studies. Readers should bear this in mind when reading this report.

Overall level of financial knowledge

Given the diverse methods used to measure financial knowledge, the different groups being studied, the shifting economic environment in which people participate in such research, and the diversity and complexity of individuals more generally, it is difficult to draw neat conclusions about what Australians know and don't know.

However, overall, the research suggests the following:

- Most people have reasonable levels of financial literacy and people generally feel confident about their knowledge of financial issues (see Table 1).
- People tend to know and understand simple day-to-day money management concepts like budgeting, credit, savings and debt, but struggle with more complex concepts like investments, superannuation and saving for retirement (see Table 1 and Table 2).
- Generally people seem to be open to the idea of learning more about financial issues (see Table 1).
- While some people don't rely on any information sources, most people rely on a wide range of information and advice services when researching financial decisions and/or trying to gain financial knowledge, including informal sources (e.g. family and friends, newspapers) and formal sources (e.g. financial advisers/accountants and product providers).
- A number of factors appear to influence people's knowledge and understanding of financial matters, including their attitudes and beliefs about money, their confidence levels, their interest and engagement levels and their socio-demographic characteristics (e.g. age, gender, education, income).
- People don't always know what they don't know.

Table 1: People's reported ability and understanding of key financial topics, and recognition of the importance of learning more (FLF, 2007a)

Financial topic	People's self-reported ability and understanding	People's self-reported recognition of the importance of learning more
Budgeting	90%	57%
Managing debt	89%	61%
Saving	88%	65%
Recognising a scam	88%	69%
Getting information about money	85%	68%
Understanding rights and responsibilities	85%	74%
Dealing with credit cards	83%	49%
Choosing appropriate insurance	82%	64%
Dealing with financial service providers	81%	66%
Planning for the financial future	81%	77%
Investing	69%	70%
Understanding financial language	64%	68%
Ensuring enough money for retirement	63%	71%

Source: Adapted extract from FLF, 2007a, p. 36.

Table 2: People's tested understanding of key financial topics (CBF, 2004)

Questions	Percent who answered correctly
Choosing the best way to minimise credit card interest	94%
Choosing the cheapest way to borrow (unsecured loan)	93%
Understanding the importance of net returns from investment	89%
Choosing the best investment given a certain objective	88%
Choosing the cheapest way to draw money	88%
Understanding the liquidity of different investments	84%
Choosing the most liquid investment	82%
Understanding the need for voluntary super	82%
Choosing the best long-term investment	79%
Understanding the power of compound interest	78%
Understanding how personal credit ratings work	62%
Choosing the best option when you cannot pay a bill	55%
Choosing the best way to minimise tax	52%
Choosing the cheapest way to borrow (secured loan)	51%
Understanding how to deal with spiralling debt	48%
Understanding if life insurance is necessary	44%
Understanding the benefits of donating money from pre-tax pay	41%
Understanding the benefits of a savings account	34%
Understanding how to control mobile phone bills	18%
Understanding what is important to investment decisions	17%

Source: Adapted from CBF, 2004, p. 6.

ANZ financial literacy survey

Australia's most comprehensive financial literacy study, the ANZ survey of adult financial literacy, is generally relied upon as Australia's core baseline measure of financial knowledge.[5]

The 2008 survey found that, overall, the lowest levels of financial literacy are associated with the following groups:

- those aged 18 to 24 years and people aged 70 years and over
- females, particularly females aged 70 years and over
- people with lower levels of education (Year 10 or less)
- people not working (for a range of reasons) or in unskilled work
- people with lower incomes (household incomes under $25,000)
- people who speak a language other than English at home
- people of Aboriginal and Torres Strait Islander descent.[6]

Importantly, while the ANZ survey results suggest a strong association between financial literacy and demographic/socio-economic characteristics, this does not mean that all members of a particular group have low (or high) levels of financial literacy.

The ANZ survey classifies people into five financial literacy quintiles based on their answers to particular questions by giving them an average (mean) Financial Literacy Score (FLS).[7] Quintile 1 respondents were those recording the lowest levels of financial literacy and Quintile 5 respondents were those recording the highest levels of financial literacy.

Table 3 summarises the mean FLSs for demographic/geographic and socio-economic subgroups from the 2008 survey. Table 4 summarises the demographic characteristics of those in Quintiles 1 and 5 from the 2005 survey.

[5] ANZ (2008), ANZ (2005), ANZ (2003).
[6] Aboriginal and Torres Strait Islander results should be treated with caution due to small sample size, n=54 (ANZ, 2008, pp. 1–2).
[7] The mean FLS for the whole sample is 83.1 and the mean FLSs for Quintiles 1–5 ranged from 40.5 for Quintile 1 through to 116.5 for Quintile 5.

Table 3: Demographic, geographic and socio-economic characteristics of FLSs (ANZ, 2008)

Group	Mean FLS	Group	Mean FLS	Group	Mean FLS	Group	Mean FLS
Total	**83.1**						
Gender:		**ATSI* background:**		**Language spoken at home:**		**Geographic place of residence:**	
Males	85.9	Yes	63.9	English	84.0	Capital city	83.4
Females	80.5	No	83.4	Other language	77.9	Non-capital city	82.5
Age group:		**Gross annual household income:**		**Current main activity:**		**Current occupation type:**	
18–24 years	71.5	Less than $25,000	68.1	Paid work	89.8	Upper white-collar	94.5
25–34 years	86.0	$25,000–$57,999	77.1	Home duties	76.7	Middle/lower white-collar	87.1
35–44 years	90.9	$58,000–$79,999	89.5	Student	73.6	Upper blue-collar	83.6
45–59 years	89.1	$80,000–$99,999	90.1	Retired	72.6	Lower blue-collar	76.5
60–69 years	81.6	$100,000–$149,999	92.1	Unemployed	66.7		
70 years or over	63.3	$150,000 or more	97.3				
Highest level of education completed:		**Main source of income:**		**ARIA** classification:**		**SEIFA*** classification:**	
Year 10 or less	70.7	Salary wages or business income	88.9	Major cities	83.7	SEIFA group 1 (greatest disadvantage)	75.5
Year 11/12	80.4	Government benefit/payment	67.2	Inner regional	83.4	SEIFA group 2	80.7
Trade/TAFE/ diploma	88.2	Retired, government benefit	*66.0*	Outer regional	80.8	SEIFA group 3	84.9
University	92.7	Retired, other source of income	*81.8*	Remote/very remote areas	75.6	SEIFA group 4	82.9
						SEIFA group 5 (least disadvantage)	87.6

* Aboriginal and Torres Strait Islander.
** Accessibility/Remoteness Index of Australia.
*** ABS Socio-Economic Index for Areas.

Source: Adapted from ANZ, 2008, pp. 10–11. Note total possible scores could be more than 100.

Table 4: Demographic characteristics of financial literacy Quintiles 1 and 5 (ANZ, 2005)

Demographic	Quintile 1 (lowest knowledge)	Quintile 5 (highest knowledge)
Gender	More likely to be female (25%), less likely to be male (16%). However, closer examination of the data showed that the underlying cause was more likely to be lower levels of education and income, rather than gender.	More likely to be male (24%) and less likely to be female (16%).
Age	More likely to be younger (18 to 24 years: 33%) or older (aged 70+ years: 37%). Less likely to be aged 35 to 44 (16%) or 45 to 59 years (14%).	More likely to be aged 35 to 44 years (25%) and 45 to 59 years (24%). Less likely to be younger (18 to 24 years: 10%).
Education	More likely to have lower levels of education (primary/some secondary: 43%). Less likely to have a degree (10%).	More likely to have a degree (29%). Less likely to only have lower levels of education (primary/some secondary: 7%).
Life stage	Less likely to be in a couple with children at home (16%).	More likely to be in a couple with children at home (24%). Less likely to be single living in a shared household (13%) or a single parent (12%).
Languages	No significant association.	Less likely to speak a language other than English in the home (13%).
Work status	More likely to have no occupation (46%) or to be unskilled (38%), semi-skilled (34%), or not working (31%). Less likely to be working (15%) or working full-time (12%). Less likely to be professional (11%) or semi-professional (13%) or other white-collar (15%).	More likely to be full-time (24%) or self-employed (30%) and professional (27%) or an owner executive including small business (33%). Less likely to be casual (11%), semi-skilled (10%) or unskilled (8%).
Income and savings	More likely to have lower personal income (less than \$20k: 31%; and less than \$50k: 25%), lower household income (less than \$20k: 37%) and lower savings excluding the home (less than \$5k: 34%; and less than \$100k: 25%). More likely to have low levels of non-mortgage debt (less than \$500k: 24%).	More likely to have higher personal income (\$50k or more: 30%; and \$70k or more: 36%), higher household income (\$100k or more per year: 30%) and higher savings excluding the home (\$100k or more: 32%; and \$250k or more: 36%).
Home ownership	More likely to be renting (27%) and less likely to be paying off home (13%). More likely to have a lower home value (less than \$175k: 29%).	Less likely to be renting (14%) or have lower home value (less than \$175k: 10%). More likely to have higher home value (\$500k or more: 29%) and higher mortgage debt (\$250k or more: 30%).

Source: Selected extract from ANZ, 2005, pp. 24, 29.

ABS's literacy and life skills survey

At a more general level, in 2006 the Australian Bureau of Statistics (ABS) conducted an adult literacy and life skills survey as part of an international study. The study measured skills in the areas of document literacy, prose literacy, numeracy and problem solving.

The ABS survey found that, of Australians aged 15 to 74, approximately:

- 7 million (47%) had low scores (Level 1 or 2) on the document scale[8]
- 7 million (46%) had low scores (Level 1 or 2) on the prose scale[9]
- 7.9 million (53%) had low scores (Level 1 or 2) on the numeracy scale[10]
- 10.6 million (70%) had low scores (Level 1 or 2) on the problem-solving scale.[11]

Given that Level 3 is regarded by the survey developers as the 'minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy', this result suggests that around half the Australian population lack functional literacy and numeracy skills (ABS, 2006).

Knowledge by product/activity

The key findings about Australians' financial knowledge by financial products and activities are summarised below. These summaries cite indicative statistics only and are limited to the key pieces of research about financial literacy in Australia.

Some of these findings are the result of objective tests, some subjective and some both. As a result of these different methodologies (and other factors), some of the findings conflict. For more comprehensive summaries of available statistics, see Appendix 1.

[8] Document literacy was defined as the knowledge and skills required to locate and use information contained in various formats including job applications, payroll forms, transportation schedules, maps, tables and charts.
[9] Prose literacy was defined as the ability to understand and use information from various kinds of narrative texts, including texts from newspapers, magazines and brochures.
[10] Numeracy was defined as the knowledge and skills required to effectively manage and respond to the mathematical demands of diverse situations.
[11] Problem solving was defined as goal-directed thinking and action in situations for which no routine solution is available.

Savings and budgeting

- People generally know they should make a budget[12] and believe they understand and have the ability to save (88%) and budget (90%).[13] Yet 22% of adults say they don't save and nearly half (48%) do not budget regularly for their day-to-day finances.
- Some people (24%) say they have problems setting money aside for major financial outlays.[14] Those more likely to have problems include people with household incomes below $25,000 (40%).
- Some people also report that they do not keep a close eye on household and personal expenses (23%).[15] Men aged under 35 years (34%) are more likely to report this.

Transaction methods and everyday banking

- There is a high level of banking inclusion in Australia, with almost every person having an everyday banking account (97%[16] and 100%[17]).
- However, around 120,000 adult Australians (0.8%) could be considered financially excluded, with those most at risk being people in poverty, people from Indigenous backgrounds, people with a disability and people on social security benefits.[18]
- Between 2002 and 2008, there has been significant growth in the use of and/or understanding of how to use electronic payment methods. In particular, internet banking has risen from 52% to 69%, BPAY has risen from 60% to 72% and direct debits have risen from 78% to 87%.[19]
- People's exposure to payday loans is low compared to other transaction methods. Only 15% of people either use or know how to use payday loans.[20]
- Many people (81%) say they take steps to minimise bank fees (19% either did not know or don't take any steps). [21] The most common steps people take are 'only use ATMs from the same bank as my account' (27%), 'minimise the number of transactions I make per month' (17%), 'keeping the number of transactions I make to my monthly limit' (14%), 'make fewer but larger cash withdrawals' (12%) and 'use telephone/internet banking' (12%).

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12 Citibank (2008, p. 8).
13 FLF (2007a, pp. 4–9).
14 ANZ (2008, p. 21).
15 ANZ (2008, p. 21).
16 ANZ (2008, p. 14).
17 Citibank (2010).
18 ANZ (2004a, p. iii). Note that this figure predates the global financial crisis. Detailed findings about these groups are also available in ANZ (2004b).
19 ANZ (2008, p. 20).
20 ANZ (2008, p. 20).
21 ANZ (2008, p. 29).

Credit card management

- Most people say they are confident in their ability to deal with and understand credit cards (83%).[22] They also indicate that they don't see the importance of learning more about dealing with credit cards (49%), compared to other financial products.[23]
- People generally say they know the best way to reduce credit card interest (94%).[24] They also say they know/take steps to avoid credit card fees by paying off the monthly credit card balance in full (12%), ensuring minimum monthly payments are made (9%) and not exceeding the limit on their credit card (6%).[25]
- Nevertheless, of those with a credit card, 14% said they are sometimes charged interest and 27% said they are usually charged interest on their credit card. People in their 30s (35%) and 40s (39%) were most likely to 'usually' be charged interest.[26]
- People who check their credit or store card transactions (93%) generally check for fraudulent activity (74%) and to see whether everything is right (28%).[27] The most common reasons people say they don't check their credit card transactions are someone else is checking the transactions (23%) and lack of interest (e.g. 'couldn't be bothered' (23%), 'don't have the time' (20%) and 'just assuming they're correct' (17%)).

Loans and debt

- The most common types of debt in Australia are mortgages on properties, loans for businesses or farms, HECS (student) debt and credit card debt.[28] In 2008, 65% of people had credit cards, 34% had mortgages on their own home, 17% had personal loans, 14% had a line of credit/overdraft and 13% had store card loans.[29]
- People most often borrow money from mainstream financial institutions like banks, building societies and credit unions (24%), or from family and/or friends (14%).[30] Family and/or friends are most likely to be used by younger people aged 18 to 24 (46%). The use of pawnbrokers (2%), payday lenders (1%) and debt rescue companies (less than 1%) is relatively low.

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[22] FLF (2007a, p. 15).
[23] FLF (2007a, p. 35).
[24] CBF (2004, p. 6).
[25] ANZ (2008, p. 29).
[26] FINSIA (2009, p. 14).
[27] Only 7% indicated they did not check credit or store card transactions: ANZ (2008, p. 47).
[28] Headey & Warren (2008, p. 49).
[29] ANZ (2008, p. 41).
[30] Based on the 45% of respondents who had borrowed money the last 12 months: ANZ (2008, p. 43).

- People say they are confident in their ability to manage personal debt (89%).[31] Men (81%) are more likely to say they feel comfortable with debt than women (77%). However, people appear to be less able to deal with spiralling debt (48%).[32]
- People tend to struggle with understanding how personal credit ratings work (62%).[33] Some don't know what type of information is collected/needed to determine a person's credit rating (28%).[34] Those who were aware of the types of information needed to determine a credit rating nominated 'repayment defaults' (29%), 'late payments—time not specified' (20%) and 'history of loan or credit applications made' (14%) as the top sources of information needed.
- More than forty percent of people (41%) do not know that being more than 60 days late with the minimum payment on a credit card is the thing most likely to give someone a bad credit rating.[35] Women (47%) are more likely than men (35%) to not know this, particularly women aged 18 to 24 years (66%) and those 70 years and over (69%).
- People are more likely to be aware of who is responsible for repayment of a debt on joint loans (83%) than on credit cards for which the primary card-holder arranges for a second person to be provided with card access (77%).[36] In both cases, lack of awareness is highest among those aged 18 to 24 years and those aged 70 years and over.
- People generally don't know what reverse equity loans (also known as reverse mortgages) are (54%).[37] When those who claimed to know what reverse equity loans are were asked what they would consider when deciding whether or not to take out a reverse equity loan, the most common answers were the interest rate (13%), life expectancy (11%), the conditions of the loan (11%) and the size of the loan that would be needed (10%).[38]
- People who have a reverse mortgage do not always clearly understand the trade-offs between accessing loan funds now and having less available in the future.[39] They also have trouble understanding how a reverse mortgage works and/or are not aware of all the terms and conditions of the reverse mortgage.

[31] FLF (2007a, p. 15).
[32] CBF (2004, p. 6).
[33] CBF (2004, p. 6).
[34] ANZ (2008, p. 46).
[35] ANZ (2008, p. 45).
[36] ANZ (2008, p. 45).
[37] More than one in two of those asked either didn't know (51%) or were unsure (3%) what a reverse equity loan was. Note that only respondents aged 60 years and over were asked this question. ANZ (2008, p. 88).
[38] 14% of those who knew what a reverse equity loan was said they would never take one out and another 33% said they didn't know what to consider.
[39] ASIC (2007a, p. 6).

Financial documents (PDSs, financial statements and prospectuses)

- People (including investors) are often overwhelmed by the volume and complexity of investment information available to them, including disclosure material such as Product Disclosure Statements (PDSs), prospectuses and annual reports.[40]
- People are generally confident about their ability to understand the information provided in financial statements (79%) but are less confident about their ability to understand financial language more generally (64%).[41] People with household incomes between $20,000 and $49,000 (60%), women (60%) and people aged 18 to 29 years (57%) are among those who are more likely to struggle with financial language.[42]
- Women have reported that they feel overwhelmed with the amount and complexity of financial information available and some describe financial terms/expressions as ‘another language’ (25%).[43]
- Many students have difficulty interpreting a bank statement, with only 48% of Year 9 students able to understand the term ‘debit’ and only 25% able to understand the term ‘credit’ on a bank statement.[44] Only 43% of Year 9 and Year 10 students are able to understand the term ‘product disclosure statement’.
- Seventy-five percent of people who have super indicate that they receive and read their superannuation fund statements.[45] Of those who receive super statements, 31% believe the statements are difficult to understand.[46] Of the 15% of people who indicate that they receive super statements but do not read them, most do so because they ‘couldn’t be bothered’ (36%) or because the statements are ‘too difficult to understand’ (23%).[47] Women (30%) are significantly more likely to not read their superannuation statements because of the perceived difficulty in understanding them compared to men (14%).
- Some investors who receive a prospectus don’t read it because they feel that they won’t understand the information in it.[48]

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40 ASIC (2008b, p. 103).
41 FLF (2007a, p. 27).
42 FLF (2007a, p. 77).
43 WIRE (2007, p. 25).
44 CBF (2006, p. 12).
45 ANZ (2008, p. 72).
46 ANZ (2008, p. 74).
47 ANZ (2008, p. 72).
48 ASIC (2008c, p. 25).

Planning for retirement

- People aged under 65 who are not yet retired recognise the importance of saving for retirement through superannuation (93%).[49] Yet some people believe that retirement is too far away to think about (21%) and that financial planning is only important for those who have a lot of money (16%).[50] Those with low incomes are more likely to think that financial planning is only important for those who have a lot of money.[51]
- People are generally confident (81%) in their ability to plan for their long-term financial future but less confident in their ability to ensure they have enough money for retirement (63%).[52] As few as 11% of Australians in full-time employment have given retirement a lot of thought and made preparations.[53]
- Many people do not know how much money they will need to fund a comfortable retirement and only 27% of those aged under 65 who have super and are employed have identified an annual figure.[54] Those aged under 30 (27%) are more likely to have 'no idea' how much money they will need compared to those aged over 40 (23%).[55] Two-thirds (66%) of the people who have thought about retirement, and are able to say how much money they will need, indicate they will need between $25,000 and $74,999 per year to live on when they retire.[56] Based on the Westpac-ASFA Retirement Standard these estimates appear optimistic.[57]
- Eighty-two percent of people aged under 40 years are aware that they can contribute a greater percentage of their salary to superannuation.[58] Similarly, 79% agree that 'superannuation is a good way to make me save' and 78% agree that 'compulsory superannuation is forced savings, I barely notice it'. Women are significantly more likely to agree with these statements (82%).[59]
- Most people do not believe that the age pension (86%) or employer-funded superannuation alone (73%) will meet their retirement needs.[60] The majority of those aged under 65 (91%) believe that they will need

[49] ANZ (2005, p. 142).
[50] FLF (2007a, p. 21).
[51] FLF (2007a, p. 80).
[52] FLF (2007a, p. 21).
[53] MWS (2010, p. 4).
[54] ANZ (2008, p. 82).
[55] Citibank (2008, p. 16). Similarly, ANZ (2008, p. 82) found that 34% of people aged 45 to 59 years had identified a figure for retirement, compared to those aged 18 to 24 years (13%).
[56] ANZ (2008, p. 82).
[57] According to the December quarter 2009 Westpac-ASFA Retirement Standard estimates, the annual income for a 'modest single female' would be $19,996 and for a 'comfortable single female' would be $38,611. Couple estimates are $28,080 (modest) and $51,727 (comfortable). Westpac & ASFA (2009, p. 3).
[58] FINSIA (2006, p. 9). Note that while the research refers to 'under 40s' the underlying survey sample included a total of 600 people aged 25 to 44 years.
[59] FINSIA (2006, p. 14).
[60] FLF (2007a, p. 80). Similarly, FINSIA (2006, p. 17) found that only 8% of under 40s expected to rely entirely on the age pension.

to self-fund their retirement.[61] Almost two-thirds (61%) of Australians in full-time employment believe they will be less comfortable in retirement.[62]

Superannuation

- As many as 43% of people rate themselves as having 'none' (8%) or only 'minimal' (35%) levels of knowledge about superannuation.[63]
- Those who have super, are employed and under age 65 understand the basic rules relating to superannuation (i.e. that employers are required by law to make superannuation payments on their behalf and that they themselves can make additional contributions to their superannuation) but are less aware of the tax treatment of super: see Table 5.[64] Women (53%) are among those least likely to say super is taxed at a lower rate than other investments (compared to 63% of men).

Table 5: Understanding superannuation (ANZ, 2008)

Concept tested	Percent answered correctly	
	2005	2008
Employers are required by law to make super payments on behalf of their employees	97%	96%
Employees can make super payments additional to any payments made by their employer	92%	90%
Super is taxed at a lower rate than other investments	56%	58%

Source: Adapted from ANZ, 2008, p. 71.

- People are also less aware of other super-related benefits, such as the government co-contribution scheme, their entitlements regarding choice of fund, and their understanding of the payment of death benefits: see Table 6.[65] Those who are unable to nominate any superannuation benefits are more likely to be younger (18 to 24 year-olds (35%)).[66]
- A significant minority of people (16%) can't identify the potential disadvantages of having multiple superannuation funds.[67] Those who do

[61] ANZ (2008, pp. 80–81).
[62] MWS (2010, p. 4).
[63] MWS (2006, p. 18). A subsequent MWS (2009, p. 41) study showed that 29% rated their current level of knowledge about superannuation as 'minimal'. The percentage of people rating their knowledge level as 'none' was unspecified.
[64] ANZ (2008, p. 71). Similarly, a recent MWS (2009, p. 35) study found that one in five (18%) working Australians were unsure of the tax effectiveness of superannuation and a further 11% rated the tax effectiveness of superannuation as 'poor'.
[65] MWS (2006, p. 18).
[66] 20% of people couldn't nominate any advantages of superannuation. People that could nominate advantages indicated the lower/favourable tax treatment (30%), money being locked away (29%) and superannuation being a low-risk investment (15%) as the top three advantages. ANZ (2008, p. 77).
[67] ANZ (2008, p. 70).

know tend to cite the potential of losing track of superannuation (36%), multiple administration or management fees (34%) and multiple entry or set-up fees (20%) as the problems associated with having multiple funds.

- Nearly half of people (47%) don't know if they are in an accumulation fund or a defined benefit fund and nearly a quarter (22%) don't know what investment option their superannuation is in.[68]
- Only 29% of people agree they could 'accurately state my superannuation balance as at today to within $10,000'.[69]
- Just over two-thirds (68%) of people are able to correctly identify 'the amount of return left after the fees are taken out' as the best indication of how their superannuation fund or managed investments are performing: see Table 7.[70]
- Age and proximity to retirement influences the degree to which people monitor their superannuation. Among those making or receiving super contributions, 40% of those aged 60 to 69 say they monitor the level of their superannuation compared to only 3% of those aged 18 to 29.[71]

[68] MWS (2010, p. 5).
[69] A further 23% said they could state it within $5000, 16% within $1000, and 30% couldn't say at all. MWS (2009, p. 39).
[70] ANZ (2008, p. 75).
[71] FINSIA (2009, p. 20).

Table 6: Understanding superannuation (Mercer Wealth Solutions, 2006)

Test questions	Percent answered correctly	Percent answered incorrectly	Percent don't know
On retirement, you must take your super as a lump sum benefit. (False)	73%	5%	22%
John is a healthy 50-year-old who has decided to permanently retire from the workforce. He can access all his super funds. (False)	71%	9%	20%
If I am under 55 years of age and pay extra contributions into my super account, I can withdraw that extra money at any time. (False)	56%	13%	31%
If you were born after 1965, you will need to be aged 70 before you can access your super. (False)	46%	9%	44%
Under the superannuation guarantee, your employer must contribute 7% of your earnings to a super fund. (False)	44%	36%	20%
All Australian workers are eligible for the government co-contribution scheme, regardless of their income or age. (False)	42%	31%	27%
A growth style option invests most or all of your super assets in shares and property investments. (True)	39%	11%	50%
A defensive fund invests most or all of your super assets in cash and fixed interest investments. (True)	37%	8%	55%
Income from an allocated pension lasts until the money in your account runs out. (True)	32%	15%	53%
All Australian workers are entitled to choose their own super fund under Choice of Fund legislation. (False)	15%	77%	9%
In the event of your death, your super fund is required to pay your death benefit to your nominated beneficiary. (False)	7%	73%	20%

Source: Adapted from MWS, 2006, p. 18.

Table 7: Indicators of superannuation fund performance (ANZ, 2008)

Performance indicator	Percent of respondents
Amount of return left after the fees are taken out	68%
Return	12%
Per-unit cost	5%
Fees	2%
Can't say	13%

Source: Adapted from ANZ, 2008, p. 75.

Investing

- Despite the rise in investment ownership among Australians in recent years (see Table 8 for investments held), many people believe investments are too complicated to understand properly (46%)[72] and are less confident in their ability to invest (69%) compared with other financial activities.[73] Men (75%) generally report higher confidence in their ability than women (63%).
- Even direct investors have become increasingly 'confused by all the information on shares' (44% in 2008 compared to 35% in 2006) and only 40% feel they 'know enough to confidently make a decision'.[74]

Table 8: Most commonly owned investment products[75] (ASIC, 2008a)

Product owned	Australian population (aged 18+)	Investor population (aged 18+)
Direct shares[76]	24%	51%
High-interest savings accounts	NA	24%
Extra super contributions	11%	23%
Term deposits	10%	21%
Investment property	10%	19%
Self-managed super funds	4%	12%
Other direct investments[77]	5%	11%
Managed investments	6%	9%

Source: Selected extract from ASIC, 2008a, p. 15.

- Many people recognise the importance of learning more about investing (70%), especially those aged 18 to 29 years (81%) compared to those aged over 64 years (43%).[78]
- While many people know that high returns generally mean high risk (86%), almost half (48%) have trouble *applying* the risk and return

[72] Fear (2008, p. 44). In addition, 42% of people surveyed by MWS (2006, p. 15) rated their level of knowledge of investment as 'nothing' or 'minimal' (i.e. a score of 0–3 out of 10). A further 41% rated their knowledge as 'moderate' (4–6 out of 10).
[73] FLF (2007a, p. 79).
[74] ASX (2009, p. 25). Base sample: 2008 (n=816); 2006 (n=904) current direct investors.
[75] Base for Australian population: n=53,307 and base for investor population: n=1217.
[76] A third (33%) of share owners acquired their shares passively, while almost two-thirds (63%) of share owners acquired the shares actively.
[77] The most commonly owned other direct investment was debentures (39%), followed by bonds (21%), short-term securities (9%) and options (9%).
[78] FLF (2007a, p. 79).

concept.[79] Many (66%) would not consider risk and return when choosing an investment.[80]

- Similarly, some superannuation fund members[81] had difficulty assessing the risk associated with 'Australian shares', 'balanced' and 'fixed interest' investments in particular (see Table 9).[82]

Table 9: How people rated the risk associated with particular investments (Gallery et al, 2010)

Investment options	Correct	Incorrect	Don't know
Cash	61%	21%	18%
Cash plus	52%	25%	24%
Fixed interest	44%	41%	15%
Balanced	44%	43%	13%
Socially responsible	51%	24%	25%
Australian shares	32%	53%	15%
International shares	57%	28%	15%
High growth	77%	10%	12%

Source: Adapted from Gallery et al, 2010, p. 23.

- Two in three people (67%) understand that short-term fluctuations in market value can be expected even with good investments.[83]
- Only 5% of people would consider diversity/spread of investments when making a financial decision.[84] While most investors have heard of the term 'diversification' (78%), some have trouble applying the concept (e.g. 36% said investing 100% of your money in government bonds was good diversification).[85]

Insurance

- Many people believe they have the ability and understanding to protect themselves and their assets by choosing appropriate insurance (82%) (e.g. home and contents insurance, car insurance, life insurance), although

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[79] Only 52% would consider an investment advertised as having a return well above market rates and no risk as 'too good to be true' and not invest in it. ANZ (2008, p. 64).
[80] FLF (2007a, p. 11).
[81] A sample of QSuper superannuation fund members.
[82] Gallery et al (2010, p. 23).
[83] ANZ (2008, p. 65).
[84] FLF (2007a, p. 79).
[85] ASIC (2008a, p. 6).

women (84%) are more likely than men (79%) to believe in taking out insurance to be prepared for the unexpected.[86] However, only 37% say they have enough insurance to ensure that their loved ones won't suffer financially in the event of their own death, sickness or disability.[87]

- Many people (64%) also believe that it's important to learn more about how to choose appropriate insurance, particularly those aged 18 to 29 years (79%).[88]
- Around half (54%) of people with insurance seem to be aware of their responsibility to make honest and complete disclosure of matters relating to a loss.[89] More are aware about cooling-off periods when taking out a new house and contents insurance policy (68%).
- People generally consider the premium (53%), the general level of cover needed (41%), the brand or reputation of the insurance provider (20%) and the excess (15%) when they are taking out a new insurance policy.[90]

Scams and frauds

- People feel that they have the ability to recognise a scam (88%) but it is likely that they are more vulnerable to scams than they realise.[91]
- In 2007, at least 5,809,100 people had been exposed to a scam over a 12-month period:[92]
  - Exposure involved people receiving and viewing or reading an unsolicited invitation, request, notification or offer designed to obtain their personal information or money or otherwise obtain a financial benefit by deceptive means.
  - A total of 806,000 Australians aged 15 years and over were victims of at least one incident of personal fraud over the 12-month period. This equated to a victimisation rate for personal fraud of 5% of the population aged 15 years and over.
  - There were 453,100 victims who lost money in the 12 months prior to interview, incurring a combined financial loss of almost one billion dollars ($977 million). Of the victims who lost money to personal frauds, the average final loss was $2156 per person.
- People tend to be aware that there are risks associated with internet banking (78%).[93] They believe the main risks are key logging and hacking (53%), the use of unsecured sites (23%), identity theft (23%) and credit

[86] FLF (2007a, p. 81).
[87] Citibank (2010).
[88] FLF (2007a, p. 81).
[89] ANZ (2008, p. 99).
[90] ANZ (2008, p. 102).
[91] FLF (2007a, p. 25).
[92] People surveyed during the survey reference period (July to December 2007) were asked to recall incidents that occurred only in the last 12 months prior to the date of their interview. ABS (2008a, p. 7).
[93] ANZ (2008, p. 120).

card fraud (17%). Sixty-three percent of these people are also aware of ways to minimise internet banking risk.[94] They cite using an up-to-date anti-virus software (38%), having a firewall (26%) and changing passwords regularly (22%) as the best ways to reduce internet risks.

- The top three tips investors suggest to avoid scams are:
  - deal with reputable or well-known companies/people (18%)
  - do lots of research (18%)
  - check out what you are investing in (17%).[95]
- Many people (69%) acknowledge the importance of learning more about recognising scams.[96]

Information, advice and further education

- People tend to feel confident in their ability to get information about money (85%).[97] Those more likely to feel confident are people with a household income of $100,000 or more (91%) compared to those with household incomes less than $20,000 (73%).
- Most people rely on a wide range of information and advice services when researching financial decisions and/or trying to gain financial knowledge. The most commonly nominated sources are family and friends (47%), accountants (45%), newspapers/magazines (42%), bank managers/employees (39%) and financial advisers (34%).[98]
- The most likely sources of information and advice that people would consider using are financial advisers (82%), accountants/tax agents (81%), family members (63%), banks (60%) and friends (55%).[99]
- The most common reasons people seek information and advice are tax advice/assistance in completing a tax return (28%), investment advice (27%), general advice (13%) and taking out a mortgage or refinancing a mortgage (10%).[100]
- One in two people (51%) feel they need further financial education or information.[101] Those most likely to say they need further education/information are people under 35 years of age (64%). Those aged 60 years and over (26%) are the least likely to say they need it.
- The top five topics that people say they are interested in and want further education/information about include investing (39%),

[94] ANZ (2008, p. 121).
[95] ASIC (2008a, pp. 24–25).
[96] FLF (2007a, p. 25).
[97] FLF (2007a, p. 82).
[98] ANZ (2008, pp. 33–34).
[99] FLF (2007a, p. 28).
[100] FLF (2007a, p. 29).
[101] ANZ (2008, p. 104).

superannuation (25%), budgeting (14%), taxation (13%), managing debt (9%) and borrowing, loans and mortgages (9%).[102]

Consumer rights and responsibilities

- People express confidence in their ability to understand their rights and responsibilities when dealing with money (85%), but they also recognise the importance of learning more about their rights and responsibilities (74%).[103] Those most likely to believe that it's important to learn more about their rights and responsibilities are people aged 18 to 29 years (86%).[104]
- People are generally aware that providers of professional advice about financial services are legally bound to inform clients of any commissions they might receive as a result of their advice (78%).[105] Those least likely to be aware are women aged 70 years and over (66%), single parents (65%) and those whose main source of income is a government benefit or allowance (67%).
- Most people know that consumers have a duty of honest disclosure when taking out a financial service or product (93%).[106]
- People feel reasonably confident about how to make an effective complaint against a bank or other financial institution (63%).[107] Yet 17% are unsure about whom they would approach if they experienced difficulties with a financial product and they were unable to resolve these with the product provider, particularly men aged 25 to 34 years (28%) and people working in lower blue-collar occupations (30%).[108] Those who knew what to do were most likely to mention an ombudsman/industry ombudsman (36%) or a government department like consumer affairs or ASIC (26%).
- Investors tend to have relatively low awareness of ASIC (28%) and/or what protection ASIC can provide.[109] Similarly, people more broadly are unaware of ASIC's roles and responsibilities. For example, one in two people (52%) incorrectly believe that 'ASIC checks the accuracy of all prospectuses lodged with it'.[110] Those more likely to believe that ASIC has this role are men aged 25 to 34 years (72%) and people holding investments in shares, managed funds or debentures, bonds, notes or derivatives (56%).

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[102] ANZ (2008, p. 112).
[103] FLF (2007a, p. 35).
[104] FLF (2007a, p. 81).
[105] ANZ (2008, p. 105).
[106] ANZ (2008, p. 107).
[107] ANZ (2008, p. 108).
[108] ANZ (2008, p. 109).
[109] ASIC (2008a, p. 25).
[110] ANZ (2008, p. 105).

C What people do

Key points

At a time when consumers are being asked to make more financial decisions than ever before, the environment in which they are making those decisions is becoming increasingly complex.

Knowledge alone is not enough. People don't always act in their own best interests, sometimes by not engaging at all and sometimes by making 'bad' decisions.

Behavioural studies and ASIC's own consumer and investor research identifies a range of related barriers that prevent people from making good financial decisions, including information and choice overload, complexity and uncertainty, time factors and pressures, over (and under) confidence, self-control and 'framing' (i.e. how information is presented).

Research in this area, particularly applied research in 'real' financial settings, is still developing. More (and better) research is necessary to understand the drivers of action/inaction.

> A key obstacle to saving more is not necessarily lack of awareness, but rather the ability to take action on the knowledge (Mitchell & Utkus, 2003, p. 6).

While raising people's level of financial knowledge forms the basis of many financial literacy initiatives around the world, there is a growing body of research suggesting that knowledge is only one factor when considering how to help people make positive financial decisions. This section covers what people do with the knowledge they have and, more commonly, what people do in spite of their knowledge and why.[111]

Common barriers

Consumer and investor research suggests that the ways in which people approach financial decisions vary widely and depend on a range of shifting and conflicting factors, including life stage, past experience, emotional impulses, social networks, personal traits, socio-economic status and the external environment. Financial decisions, like many life decisions, are contextual and complex.

[111] For detailed statistics about what surveyed Australians *say* they do (e.g. budgeting), see Appendix 1 Tables A1.1–A1.16.

There are considerable obstacles for consumers to overcome when making financial decisions, including increasingly complex product choices, long disclosure documents, unfamiliar jargon, uncertain financial markets and, at the extreme end, unfair or illegal practices.

Behavioural studies from within and outside the finance field suggest that people's decisions can also be hampered by behavioural biases.

Behavioural biases

Behavioural finance, sometimes referred to as 'behavioural economics' outside Australia, has established a range of theories and a growing body of research to explain how people's thought processes affect their ability to make financial decisions. Behavioural economists argue that the 'rational' consumer that underpins traditional economic theory does not exist—instead, people are simply 'normal'.

Behavioural economists claim that 'normal' people are affected by behavioural biases when making everyday decisions and particularly when making complex decisions, including financial decisions. They believe these barriers are not limited to certain types or groups of people and in fact can also affect professional financial service providers such as investment traders (Gervais & Odean, 2001).

The notion of decision biases is not new or exclusive to behavioural economics. Essentially, the effect of these shortfalls is that people:

- disengage—that is, they:
  - put off making a decision until later or never, commonly referred to as 'procrastination' and 'inertia'
  - defer the decision to someone else
- make mistakes.

For a summary of key behavioural biases, see Appendix 1 Table A1.17. Indicative examples of decision biases and other behavioural factors are explored in the discussion below. These findings illustrate the interrelated nature of behavioural barriers, and also the important role that supply-side factors can play in compounding behavioural shortfalls.

Information and choice overload

Some of the best known experiments testing the impact of choice overload have been conducted by Iyengar et al (2003), who found that 'although extensive choice proved initially more enticing than limited choice, limited choice was ultimately more motivating' (p. 3). In one of these experiments, two options were tested in a tasting booth environment, a 'limited-choice' option with six jams and an 'extensive-choice' option with 24 jams. In all, 60% of the passers-by approached the table with the extensive-choice option compared to only 40% for the limited-choice option.

However, purchasing habits were reversed, with 30% of those encountering the limited option actually purchasing a jam, compared to only 3% of those offered the extensive choice. Subsequent studies by Iyengar et al (2003) in a retirement savings context have confirmed these findings. After testing employee records (including non-participants' records) from hundreds of 401(k) retirement plans, they found that plans offering fewer than 10 options had significantly higher employee participation rates.

Local research too has uncovered the de-motivating impact of too many choices. For example, Fear (2008) conducted focus groups with Australians about a range of finance issues and found that many participants, and particularly people over 30, found the breadth of product choice bewildering:

> Even our credit union had seven or eight different types of home loan. And I'm thinking, 'I just want to buy the bloody house' (50–70, Adelaide, higher income).
>
> It's just day-to-day things, like mobile phone contracts or your electricity. What sort of a genius can work out which of these five or six options is the best one? (50–70, Adelaide, higher income) (Fear, 2008, p. 24).

More choice also means more information to evaluate:

> You might have the best intentions, but you sit down with it all and never get through it all. So you need to come back to it again and again (30–49, Wollongong, lower income) (Fear, 2008, p. 24).

In a survey conducted by Roy Morgan Research for ASIC (2008b), investors were asked about their concerns about investing. Information and choice overload was one of the concerns raised. Regardless of their demographic characteristics or level of experience, many investors were overwhelmed both by the volume of information available, and the difficulty in assessing the validity of the available information:

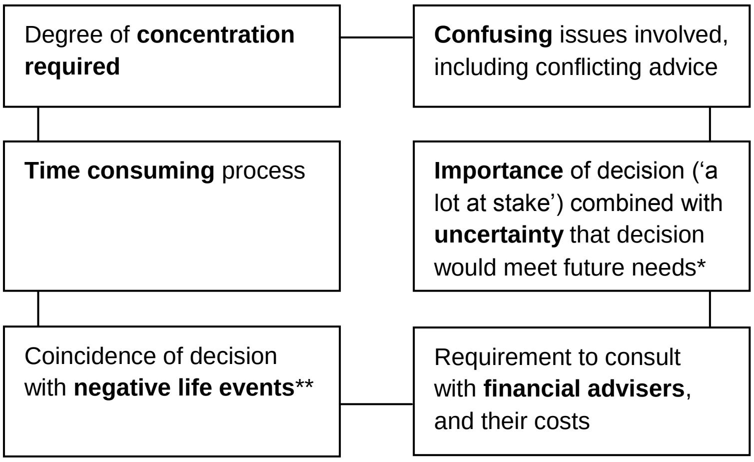
> I think there [is] a lot of information out there. The difficult thing is making sense of that information and if that information has any integrity (Female, investment property interview, 45–49).
>
> Sorting out what is a good product—there's so much information and opinion, to sort out the facts from advice that's not necessarily reliable or suitable (Male, shares interview, 45–49) (ASIC, 2008b, p. 62).

These findings echoed an earlier in-depth piece of research about retirees and their 'point of retirement' decisions, conducted by Chant Link and Associates for ASIC in 2004. Retirees' decision-making process took anywhere between a few weeks to up to two years, and often followed several stages of collection, corroboration, and comparison. Again, most retirees felt they had sufficient access to information but found it difficult to:

- absorb and analyse the large quantity of available information
- assign weight to the various (at times, conflicting) sources of advice they received.

Information overload was only one of a range of factors that made the decision process deeply unpleasant for these retirees: see Figure 2.

Figure 2: Reasons retirement decision was unpleasant (ASIC, 2004)



* Examples include anxiety about making an incorrect or irreversible decision, concerns about recent years of poor returns from investment markets.

** Examples include loss of job, ill-health.

Source: Adapted from ASIC, 2004, p. 9.

These factors were also raised by those who participated in ASIC's subsequent investor research (2008b). However, while a number of the investors reported procrastinating or giving up when faced with these barriers, most of the retirees viewed their decision as something that simply *had* to be taken, regardless of any challenges or concerns.

This was particularly so for those for whom retirement was unavoidable (e.g. those forced to retire due to ill-health). Unfortunately, this meant that some retirees remained uncertain about whether they had made the 'right' decision long after the action was taken:

> I found it a bit complicated. I had to make up my mind which was the best being offered. I don't know whether I did the right thing or not (Recent retiree).
>
> I felt reasonably comfortable about my knowledge in the years before retirement and then I realised, when somebody explained a few things to me, how much I didn't know. You can feel comfortable with the advice you are getting or the knowledge you have but you don't know what you don't know. Somebody might open up another door and mention another issue, which might conflict with the other advice you have received or show you something better which you had not heard about before (Recent retiree) (ASIC, 2004, p. 39).

The knowledge and experience these retirees gained didn't necessarily lead to an increased sense of financial competence or comfort. Indeed, at the time of their interviews, some appeared to be confused about the features and terminology of the products they had purchased, suggesting that just as we cannot assume financial literacy leads to appropriate behaviour, we cannot assume that behaviour or experience leads to greater financial literacy.

These reasons are in line with the results of research conducted by Clark-Murphy et al (2002), which studied superannuation fund members faced with a decision about whether or not to remain with a defined benefit plan (DBP) or change the fund to a defined contribution plan (DCP).

Overall, the proportion of people who remained in the DBP, either by active choice (35.2%) or by not acting at all (31.6%) far outweighed those who actively chose to switch to the DCP (33.3%). As well as studying the decision itself, Clark-Murphy et al found that 61% of people found the decision difficult. They identified four key decision barriers, which are summarised in Table 10 (and in greater detail in Appendix 1 Table A1.18).

Like ASIC's retirement research, these findings show that people's difficulty dealing with choices and information is not limited to the volume of available information, but is also affected by complexity, uncertainty, the decision context and personal drivers—factors that are explored later in this section.

Table 10: What makes superannuation decisions difficult? (Clark-Murphy et al, 2002)

High-level barrier	Nature of barrier
Uncertainty/risk (38%)	• Uncertainty (general) • Employment • Political/legal/taxation • Financial outcomes • Personal financial situation • Life expectancy
Information/knowledge (32%)	• Complexity • Acquiring information • Lack of knowledge/understanding • Ambiguity
Nature of the decision/time (22%)	• Importance of the decision • Once-only decision • Deciding • Timing • Time constraint
Emotion (8%)	• Frustration and lack of control • Anxiety • Distrust • Avoidance

Source: Adapted from Clark-Murphy et al, 2002, pp. 13–14. See Appendix 1 Table A1.18 for more detailed information.

Age and gender emerged as demographic drivers in this study. Those aged under 55 and women were more likely to find the decision difficult.[112]

Gender differences appear regularly in the literature. For example, the ANZ financial literacy survey (2008) found that women (30%) were significantly more likely than men (14%) to say their superannuation statements were too difficult to understand (p. 72).

However, the underlying causes of these differences remain contentious and inconclusive. For example, Clark-Murphy & Gerrans (2002) later explored the gender drivers they had discovered in their superannuation study in closer detail and concluded that the cause might have been that men and women processed the supporting information differently rather than an inherent ability/difficulty understanding finances.

Complexity and uncertainty

In his paper about how people cope with financial decisions, Fear (2008) described what Randy Martin has called ‘the financialisation of daily life’:

> …ordinary people are now asked to make complicated decisions that in the past would have been made by bureaucrats, entrepreneurs or bankers. “Mum and Dad” investors are now forced to come to terms with complex financial concepts and make sophisticated decisions that will ultimately affect their future standard of living (p. 7).

As mentioned earlier, complexity and uncertainty were both key concerns for retirees making decisions about how to fund their retirement (ASIC, 2004). For example, when making their decision, most retirees had either ignored social security and taxation treatments or asked their adviser for guidance on the best option for them to take due to a perception that these rules were too complex and/or frequently changing.

They also worried about the uncertainty of future market fluctuations, and the potential burden of future investment decisions:

> I don’t want to have another job as an unpaid financial planner and spend the rest of my life worrying about what’s happening (in the markets) (Recent retiree) (ASIC, 2004, p. 59).

These concerns are unsurprising given the sharp rise in investment ownership in Australia over recent years, meaning investments such as shares and managed funds remain relatively unfamiliar to many investors, and particularly to those who have acquired them passively (e.g. through demutualisation or compulsory superannuation).

[112] Those who were over 55 might have found the decision less difficult because of their closer proximity to retirement.

Shares and managed funds are also intangible, which leads some investors to believe they are more risky than more 'concrete' or familiar investments such as property:

> The stock market is more volatile, whereas real estate is less volatile and long term and the level of risk is lower. You can be scientific about it. Property vacant for two weeks every year and add another 5% to maintenance costs (Female, investment property focus group, Melbourne) (ASIC, 2008b, p. 38).

This may in part be explained by the 'availability' bias, which causes people to over-value information that is easy to recall or visualise (Tversky & Kahneman, 1974).

Underestimating product complexity and/or risk was an important factor in ASIC's research about unlisted, unrated debenture (UUD) investors (ASIC, 2008c), in which some investors were motivated by a false perception that their investment was comparable to a simple, familiar bank deposit product. This was the case even though the average self-assessed level of understanding of the prospectus (which described the product) was as high as 7 out of 10.

Ironically, the disclosure documents designed to help people make financial choices are themselves considered complex by many people. In ASIC's research into UUD investors, a number of investors (across different comparison groups) chose not to read the prospectus or ignored the information in it. Some felt they didn't or wouldn't understand it, some had already made their decision, some relied on other factors (e.g. assurances from the salesperson), and others were uncertain about the validity of the document:

> I make a decision before I read the prospectus; it's probably naive of me … But even the prospectus can be full of lies anyway, like in this case, it's only a piece of paper with all this information. Even if you read it they can tell lies as well (Female, ACR,[113] in-depth interview, NSW) (ASIC, 2008c, pp. 25–26).

A number of focus group participants in Fear's (2008) research recalled receiving financial information that was so difficult to interpret that they suspected financial organisations set out to confuse their customers:

> They put in all this legal jargon [into financial documents]. It's a way of getting people not to read it (50–70, Adelaide, lower income) (p. 25).

Research released by the Investment and Financial Services Association (IFSA) (2008c) also found that terminology can be a significant barrier to reading a PDS—more significant than document length. It also found that the role of the PDS was confused, with people viewing it as an education tool, a reference document and/or a selling tool.

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[113] Australian Capital Reserve Ltd (Administrators Appointed).

Both terminology and length were raised by focus group participants in ASIC's (2008b) investor research:

> Unless you are a qualified accountant or some sort of forensic CPA, it's quite difficult to read a company's budget … trying to wade through anywhere between 50 and 250 pages of information, it's very difficult and I know that they do provide an executive summary one pager … to understand some of the finer detail is very difficult (Male, shares (active) in-depth interview, 30–34, Income >$50k, Brisbane).
>
> I get a feel for it, but I find it very confusing, it is all jargon, not in layman's terms (Female, novice investor: managed investments focus group, Melbourne) (p. 104).

Time factors and pressures

One of the reasons people give for not reading disclosure documents and other financial material is a lack of time.

Insufficient time also regularly appears as a barrier to shopping around in the ANZ financial literacy survey (2008): see Table 11.

Table 11: Reason for not shopping around: 'Don't have the time' (ANZ, 2008)

Product	Percent who didn't shop around*	Percent who didn't shop around because 'don't have the time'
Superannuation	28%	8%
Everyday bank account	34%	8%
Loans (other than a mortgage)	30%	8%
Insurance	24%	6%
Mortgage	26%	4%
Financial planner/adviser	41%	3%
Retirement income product	40%	3%

* Excludes 'Can't say' responses.

Source: Adapted from ANZ, 2008, pp. 38–101.

Recent ASIC (2010b) research into retirees and pre-retirees found that some people approaching retirement had a life-long pattern of making decisions 'on the fly' due to a combination of both personality and time pressures.

It is not only complex decisions or actions that are affected by real or perceived time pressures. For example, time factors featured in an omnibus survey commissioned by ASIC (2008d) about financial complaints. In this research, 52% of those surveyed were dissatisfied with their financial product or service provider in the last two years, but only 29% of those surveyed had made a complaint in the same period: see Table 12.

Table 12: Time-related reasons for not making a complaint to an unsatisfactory financial product or service provider (ASIC, 2008d)

Reason	Percent
Waste of time / don't have time/time involved / not worth the time/effort/bother / too much hassle/trouble	16%
Slow process / takes a long time / takes too long	3%
On hold for a long time / transferred / automated phone service / waiting to speak to the right person	3%

Source: ASIC, 2008d (based on Newspoll study conducted in June 2008 by phone among n=1200 adults aged 18 and over nationally).

Competing time pressures is only one of the time factors that affect people's financial decision making. Behavioural economists have also described people's tendency towards myopia—that is, the further away an event is, the harder it is for people to appropriately judge (and respond to) it. As a result, people tend to overvalue things that are immediate and concrete over things that are distant and abstract. This has obvious implications for people's propensity to save for retirement:

> For hyperbolic discounters, rewards are left to accelerate quickly, and then taper off. Put simply, workers who are hyperbolic discounters place a lower value on future benefits and overvalue the present. The application to retirement is clear: they will overconsume today and undersave, as a result of self-control problems when it comes to saving for retirement (Mitchell & Utkus, 2003, pp. 5–6).

It is not surprising then that ASIC and industry surveys regularly find evidence of poor retirement planning, not only in younger populations (e.g. FINSIA, 2006) but also those approaching retirement (e.g. ASIC, 2010 and MWS, 2006).

Not only can too much time be just as de-motivating as too much choice, but the more indefinite the future event is, the more difficult it is to act. For example Tversky & Shafir (1992, cited by Shafir in Productivity Commission, 2007) conducted an experiment in which they offered participants $5 for answering and returning a long questionnaire by a given date. Three groups of participants were each given different deadlines, and response rates declined the longer the time given:

- five days (60%)
- three weeks (42%)
- indefinite period (25%).

This would help explain why less than half (47%) of the 1217 general investors surveyed by ASIC in 2007 said they had a long-term financial goal and a plan to reach that goal, and many (37%) had neither a plan nor a goal (2008a).

ASIC's retiree (2010, 2004) and investor (2008b) research has also found that people often underestimate the amount of time they need to plan for events such as retirement, and as a result find themselves faced with sudden, major financial decisions after unexpected negative life events such as redundancy, illness, death or divorce. People are not only often bad planners but their 'future forecasts are often characterized by widespread overconfidence and excessive optimism' (Mitchell & Utkus, 2003, p. 22). The cold realisation that they now need to make an important, life-changing financial decision (and the emotion generated by the negative life event that precipitated the decision) drives some to panicked, financially unhealthy choices.

Over (and under) confidence

Overconfidence in financial decision making takes various forms. As in the example above, behavioural experiments consistently show that people underestimate the likelihood of negative outcomes. Indeed, Mitchell & Utkus (2003) report that:

> … the accumulated psychological evidence regarding overconfidence in decision-making has been described as the "Lake Wobegone" effect, named after a fictional US town described on a popular radio program where "all of the children are above average" (p. 23).

In reviewing the available literature, Mitchell & Utkus (2003) explore a range of biases that lead to overconfidence, including those in Table 13.

Table 13: Overconfidence drivers (Mitchell & Utkus, 2003)

Drivers	Examples
Underestimating the role of random chance in determining the future	People are notoriously poor statisticians and find patterns and trends in data that could just as easily be explained by random chance. People significantly underestimate the impact of random chance on their lives, and in hindsight overemphasise the degree of control they have over outcomes.
Lack of objectivity	People generally perceive themselves as 'better' than others.
Poor risk calculations	People who are '100% sure' of their responses to certain questions are usually wrong 20% of the time.
Perceived sense of control	The stronger one's sense of control, the more powerful one's sense of confidence.

Source: Adapted from Mitchell & Utkus, 2003, p. 23.

According to ASIC (2005), estimates of the proportion of *un*insured homes range from 2% to more than 15% of households and the rate of *under* insurance is much higher. After studying underinsured homes affected by specific natural disasters, ASIC (2005, 2007b) found that some people had experienced trouble estimating the future costs of rebuilding their home when assessing their building insurance and others had made an active choice to accept a degree of under insurance on their home.

Evidence of these biases is also commonly reported in investor research, ranging from studies looking at excessive trading (Barber & Odean, 1999, 2001) to local research about the take-up of scams (ASIC, 2002). In the first example, Barber & Odean (1999) used data from 10,000 randomly selected accounts provided by an American brokerage house to argue that overconfidence causes investors to 'act on misguided convictions' and 'trade to their detriment' (pp. 51, 52). In a later study (2001), they demonstrated a strong gender trend, with men trading 45% more than women overall, and single men trading 67% more than single women.

In research about Australians exposed to an international 'cold calling' scam, ASIC (2002) found that investors not only seriously underestimated the chance that the 'out of the blue' investment offer was 'too good to be true', but some ignored the cautionary advice of others, including family, friends and experts, due to a belief that they knew better and/or were prepared to take a gamble:

> He got his son in law to look up some of the website information provided. His son in law didn't like it … but he convinced himself it was okay despite the son in law's doubts. He felt it looked like a big company (Male investor, 50–59, draftsman) (p. 58).

> He spoke to his accountant—he said once you send your money overseas you kiss it goodbye. He went ahead because he just had a gut feeling that it might be alright and you take risks at times (Male investor, 40–49, small business owner) (p. 57).

Again, gender emerged as a key factor, with men more likely to invest and ignore the advice of others, and women less likely to invest and more likely to urge caution.

In 2005, the OECD reported that one of the key commonalities across the financial literacy surveys conducted by 11 OECD countries at that time was that 'consumers often believe they know more about financial matters than is actually the case' (p. 91). Therefore, overconfidence not only hampers people's financial decisions but also researchers' ability to *measure* financial literacy levels. This means that financial literacy tests based on self-assessment are likely to overstate levels of financial literacy.

Nevertheless, even self-assessment based surveys reveal evidence of overconfidence. For example, 69% of the Australians surveyed in the Financial Literacy Foundation's *Understanding Money* research (2007a) believed they understood investing and 88% believed they could recognise a scam or an investment scheme that seemed too good to be true, but only 34% said they would consider both risk and return when making an investment decision.

Perhaps more worryingly, overconfidence may mask or confuse demographic drivers. For example, findings that women are less ‘competent’ and more risk averse might be due to greater awareness of (or willingness to admit to) what they don’t know, rather than comparatively poorer financial literacy. Similarly, it is difficult to conclude whether (and if so why) women appear to be more likely to find dealing with money stressful and overwhelming (FLF, 2008; Clark-Murphy et al, 2002). Further research is required to test whether (and why) gender differences exist. Without this, policy makers and financial educators may act on unsound conclusions about ‘at risk’ groups.

The flip-side of overconfidence is, of course, under-confidence. While some people have a healthy awareness of what they don’t know and respond appropriately, others are overwhelmed by it. The de-motivating effects of under-confidence were described by the professional adviser involved in an intervention reported by AXA (2007). In this intervention, one-half of the residents in a British street were offered free professional advice and were evaluated against those not offered the advice:

> I believe that this lack of confidence to make good financial decisions stems from a belief in some people that they do not possess the necessary skills, social background, or information to positively affect their financial wellbeing. Unfortunately, in most instances this appears to lead a person to make no financial decisions at all, which more often than not turns out to be a bad decision in itself (Saran Allott-Davey in AXA, 2007, p. 6).

ASIC’s investor research (2008b) also found that low self-confidence can lead to inertia:

> There’ve been many, many times when I meant to do something and I didn’t have quite enough confidence in what I thought (Male, novice investor: managed investment focus group, Melbourne) (p. 62).

Others were driven by a fear of failure or, more commonly, a fear of risk:

> I don’t think it’s procrastination, just having a fear of failure. No one wants to fail (Female, novice investor: shares focus group, Melbourne) (p. 62).
>
> I’ve got to be careful that I keep enough to live off. Just knowing that it’s going to be safe and I don’t make any wrong decisions (Female, shares CATI interview, 55–59) (p. 58).

The Financial Literacy Foundation (FLF, 2007a) has identified three possible paths to ‘a poor or suboptimal financial outcome’ stemming from either a lack of confidence, confidence or overconfidence: see Appendix 1 Figure A1.1. They also described the important interplay between confidence and self-efficacy:

> In effect, self-efficacy gives a person a boost in confidence to believe that they can influence the outcome … Self-efficacy is a concept that is closely related to confidence, but is created through the process of taking action. Self-efficacy is built on the experience of having mastered and overcome challenges, and can be characterised as learning by doing. It is not developed through merely thinking about a situation. For each individual, the action which builds their sense of self-efficacy will be different (p. 53).

Self-control

As in other facets of daily life, people sometimes struggle with self-control when dealing with their finances. This includes knowing what you should do but not doing it (e.g. budgeting, saving) and knowing what you should not do but doing it anyway (e.g. credit card overuse and investing in risky offers that others have advised against, like the cold calling scam described above).

Although other factors such as income, social norms and other behavioural biases influence people's spending habits, self-control is undoubtedly one of the factors behind the Financial Literacy Foundation's (FLF, 2007a) finding that, while ability to budget is the area in which Australians are most confident (90%):

- 48% of adults said they do not budget regularly for their day-to-day finances
- 27% had difficulty setting money aside for big purchases or spending
- 17% could not 'get by for some time' in case of a financial emergency.

Statman (cited in ASIC, 2003) likens people's financial indulgences to 'delicious deserts that harm their waistlines' (p. 6). For example, people know overspending is bad for them but they can't resist. Even when people genuinely desire to act differently, and are armed with the information necessary to make that change, they have trouble carrying out their good intentions:

> … saving for retirement requires behavior similar to those undertaken in other behavior modification programs such as exercising, dieting, quitting smoking, or following through on New Year's resolutions. It would seem that while people intellectually "understand" the benefits of a specific behavior, and they may even have some idea of how to get started, they have difficulty implementing their intentions. Too often, they struggle to take action, and when they do act, their behaviors are often half-hearted or ineffective (Mitchell & Utkus, 2003, p. 5).

This not only helps explain why people make poor financial decisions (or neglect to act at all), but also why some financial literacy programs don't work. For example, Choi et al (2001) found that two-thirds (68%) of their sample of 401(k) retirement plan participants believed their savings rate was too low but:

- only 35% intended to increase the rate in the next few months
- four months later, only 14% had actually made changes to their plan.

Choi et al also describe a study involving workplace seminars (summarised in Table 14), concluding that, 'while financial education does improve savings outcomes, its effects are modest at best' (2001, p. 5).

Table 14: Financial education and actual v. planned savings changes (Choi et al, 2001)*

	Seminar attendees		Non-attendees
Planned action	**Planned change**	**Actual change**	**Actual change**
Non-participants			
Enroll in 401(k) plan	100%	14%	7%
401(k) participants			
Increase contribution rate	28%	8%	5%
Change fund selection	47%	15%	10%
Change fund allocation	36%	10%	6%

* The sample is active 401(k)-eligible employees at company locations that offered financial education seminars from January to June 2000. Actual changes in savings behaviour are measured over the period from December 31, 1999 to June 30, 2000. Planned changes are those reported by seminar attendees in an evaluation of the financial education seminars at the conclusion of the seminar. The planned changes from survey responses of attendees have been scaled to reflect the 401(k) participation rate of seminar attendees.

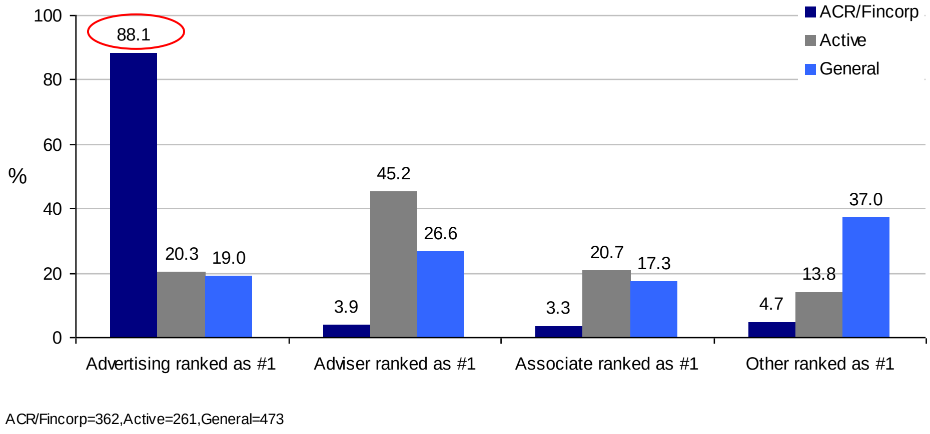
Source: Choi et al, 2001, p. 49.

Framing

The concept of 'framing effects', first explored in an economic context by Tversky & Kahneman (1981), essentially refers to the fact that people are susceptible to the way options are presented to them, a bias that heavily informs legitimate commercial advertising and is widely exploited by those who market scams and frauds.

The powerful impact of framing was evident in ASIC's research into UUD investors (2008c). ACR/Fincorp investors in particular were strongly influenced by the product advertising: see Figure 3.

Figure 3: Most influential factor (#1) in investment decision (ASIC, 2008c)



Source: ASIC, 2008c, p. 21.

Investors were particularly attracted to the way the messages were framed around security and certainty.

This framing capitalised on another behavioural bias known as 'loss aversion', in which people feel losses more acutely than gains (Tversky & Kahneman, 1981, 1991). ACR/Fincorp investors were sold 'safety' (i.e. the prevention of loss) over gain. Indeed, investors often described the fact that the interest rate offered was modest, and felt this contributed to the perception that the investment was relatively safe:

> I call risk, 10, 12, 14, 16%. I don't call 8% a big risk. That's why I invested with them, because I thought it was a steady company and they weren't offering any big money, just a little bit [more than] a bank (Male, ACR, focus group, NSW) (ASIC, 2008c, p. 27).

The 'safety' theme was also reinforced by the company staff some investors spoke with:

> I think it depends on the salesmanship, because he convinced me the money was safe...and he gave me a prospectus and he convinced me, that's it (Female, ACR, in-depth interview, NSW) (p. 23).

Framing was also used to great effect by the marketers described in ASIC's study of Australians approached by international cold calling investment scams. For example, the language used by the cold callers was carefully designed to trigger a person's sense of identity and pride:

> It is … instructive that the cold callers often used the expression "capacity to invest" when first making their offers. This wording implies that having the money is an ability that the person possesses rather than an objective statement about their finances. This would suggest that the power to invest had implications about potential investors as people (ASIC, 2002, p. 78).

Framing has also been used to achieve positive financial outcomes. For example, behavioural economists have attempted to lift savings rates by shifting retirement plan defaults from a voluntary 'opt-in' option to an automatic 'opt-out' option, a method that capitalises on inertia and procrastination more broadly:

> This simple rephrasing of the saving question elicits a dramatically different response in plan participation rates. Madrian and Shea (2001) have powerfully shown that when workers are required to opt-in, the default decision (or the non-decision) is to save nothing; by dramatic contrast, with automatic enrolment, the default decision proves to be that people save at the rate specified by the employer. For one large US firm, plan participation rates jumped from 37 percent to 86 percent for new hires after automatic enrolment was introduced … What this suggests, in the end, is that many workers do not have particularly firm convictions about their desired savings behaviour. Merely by rephrasing the question, their preferences can be changed—from not saving to saving (Mitchell & Utkus, 2003, p. 8).

More recently, the ANZ (2009) examined framing effects in an evaluation of its 'Saver Plus' program. Saver Plus was developed to help people on low incomes establish a long-term savings habit. The program works by matching people's savings dollar-for-dollar once they reach their savings goal to a maximum amount.[114] They discovered both positive and negative implications of the $1000 maximum matched amount and the way it was communicated, which are summarised in Table 15 below.

Table 15: The framing effects of the ANZ Saver Plus $1000 matched amount (ANZ, 2009)

Positive	Negative
• $1000 was seen as a target set by 'knowledgeable experts', which implied it was both a reasonable and achievable aim for participants. • It matched well with the cost of a laptop, which for many participants was a desirable reward. • It 'bought' acceptance of the application process and of being asked personal questions (i.e. the reward outweighed the hassle of joining). • It was viewed as large enough to enable a significant purchase without necessarily having to 'dip into' the participants' own saved funds.	• It discouraged some from setting a goal at lower amounts (i.e. some felt that setting a goal of $500 was not taking full advantage of the available matched funds). • Some felt $1000 was an unattainably large goal and therefore avoided the program (note, however, that this initial perception emphasised the importance of dedicated 'relationship managers' framing the goal in terms of saving small amounts over time rather than the larger and psychologically bigger barrier of the total amount).[115]

Source: ANZ, 2009, p. 9.

[114] The maximum matched amount was $1000 at the time the research was conducted. This amount was subsequently reduced to $500.

[115] The 'relationship managers' worked closely with the Saver Plus participants to help them set and achieve their savings goal. The relationship managers were from community organisations, including the Brotherhood of St Laurence, the Benevolent Society and the Smith Family.

D How to change behaviour

Key points

Although the financial literacy movement has gained momentum over the past few years, there remains little reliable, conclusive research about whether financial literacy campaigns and programs work (i.e. whether they result in sustained changes in behaviour and improved financial outcomes).

Best-practice principles for program and evaluation techniques are still developing, and it is widely recognised that both are inherently difficult.

In the interim, the established principles of social marketing, frequently used in health and environmental fields, provide a practical 'big picture' framework for financial literacy-based behavioural change initiatives.

> Simply providing comprehensive and well intentioned education resources will not be adequate. There is no shortage of quality resources available already to consumers with an active interest in building their money skills (FLF, 2007a, p. xii).

As described in Section C, improving people's knowledge will not automatically improve the quality of their financial decisions. Nor will the provision of information, or even the benefit of experience, necessarily improve knowledge. The problems financial literacy seeks to address are multifaceted. Accordingly, the tools used to change behaviour need to be multifaceted. This section looks at some of the documented tools used to date and identifies gaps that need to be addressed in the future.

Evaluation to date

Robust evaluation is essential to draw reliable conclusions about financial literacy interventions. Without evaluation, an intervention is unproven. Without *appropriate* evaluation, an intervention's impact might be misinterpreted.

A recent review of financial literacy research by Agarwal et al (2010) concluded that:

> ... it is not clear that effective programs improve behaviour through increased literacy, whether programs are cost-effective, or which types of programs are most effective. Answering these questions will require a great deal more research. Fortunately, the recent proliferation of financial education programs provides ample opportunity to conduct such research. However, the designs of existing programs are rarely conducive to robust impact evaluations (Agarwal et al, 2010, p. 25).

In 2008, the Financial Services Authority (FSA) released a review of over 70 evaluations of financial capability strategies in the United Kingdom and abroad.[116] It found little evidence that could be used to draw broader conclusions about which strategies work, and no systematic testing of the delivery methods used to increase financial capability. These findings echoed the results of a similar review prepared by O'Connell for the NZ Retirement Commission in 2007, which found that:

> … little evaluation is currently taking place, and the evaluations made so far show mixed and inconclusive results. It is not clear whether this is a consequence of poor evaluation methods or poor programme design, or, that financial education works patchily. But it does mean that a positive impact from financial education has not been unambiguously proven; nor has a clear picture emerged of what works best and why (O'Connell for the NZ Retirement Commission, 2007, p. 1).

The types of design shortfalls identified in these and other reports include:

- no evaluation at all
- evaluation as an afterthought (e.g. instrument delivered after program delivery only) rather than thoughtfully planned and fully integrated into the program (e.g. before, during and after program delivery)
- unstated or unclear objective(s)
- poor administrative records (leading to difficulties tracking program participants)
- absence of a control group to help determine causal factors
- absence of a baseline measure[117]
- focus on *output* measures (e.g. number of programs) rather than *outcome* measures (e.g. underlying knowledge or behavioural change)
- using a short-term measure for a long-term strategy
- using knowledge as a proxy for behavioural change
- over-reliance on (unreliable) instruments based on self-assessment
- selection bias/non-random samples/unrepresentative samples
- poor response rates/sample sizes.

A US study by Lyons et al (2006), which also concluded that evaluation techniques are falling short at a time when funders' expectations are increasing, recommended that educators develop a 'more standardized and consistent approach to program evaluation, but one that is also realistic and flexible enough to account for the wide variation in programs' (p. 209). The FSA review and the NZ Retirement Commission review go one step further, each offering practical suggestions for program evaluators.

[116] Atkinson for the FSA (2008).
[117] In 2005 the OECD identified 15 countries that either had conducted, or were planning to conduct, surveys to identify levels of financial understanding. According to O'Connell's review (2007), most of these covered a particular target segment rather than a national population and Australia, New Zealand and the United Kingdom appear to be the only countries with national baseline surveys.

The FSA review, which distinguishes *process* and *outcome* evaluation, presents a list of best-practice requirements for the latter: see Table 16.

Table 16: Suggestions for best-practice outcome evaluation (FSA, 2008)

Evaluation requirements	
1.	Outcome evaluation designed before the program is implemented.
2.	Clear objectives of the project and the evaluation (including identification of the target audience).
3.	Good quality data, including administrative records. This should be focused on key measures and background information to reduce the burden on program participants and providers.
4.	Quantitative data collection with a high response rate giving a sample that is broadly representative of the target population.
5.	Careful consideration of the sample size, taking into account the analysis that will be needed to understand the outcomes.
6.	Well-designed data collection instruments that are appropriate to the target group and to the initiative under evaluation and the outcome being measured.
7.	A benchmark measure of knowledge, attitude and behaviour (before the initiative) and follow-up measures to identify change at various points after the initiative—identifying immediate and sustained change.
8.	Consideration of the time period necessary to identify change, balanced with consideration of the likelihood of collecting reliable data over extended periods of time.
9.	A ‘control’ group to show the normal changes that take place in the absence of such an initiative.
10.	When reporting results: • make it clear to the reader exactly what the initiative set out to achieve, how the evaluation was designed, and what weaknesses are apparent in that design • report outcomes that relate clearly to the initiative • explain the choice of any scoring method used to summarise outcomes.

Source: Adapted from Atkinson for the FSA, 2008, p. 12.

The NZ Retirement Commission review presents a possible evaluation framework, adapted from Jacobs’ (1988) *Five-tiered approach to program evaluation* (see Table 17) and advocated by Fox et al (2005) and Fox & Bartholomae (2008). Fox & Bartholomae felt Jacobs’ model was particularly appropriate because it could potentially address ‘a myriad of program goals and objectives regardless of the program’s stage of development’ (2008, p. 64).

Their vision was to interweave evaluation into the program itself, 'making good programming a part of good measurement and vice versa' (p. 65).

Table 17: Suggested framework for the evaluation of the effectiveness of financial education* (NZ Retirement Commission, 2007)

Tier	Requirements
1. Need	What objectives does the program address? • knowledge and/or behaviour • particular target group(s) or national population • similar/difference needs.
2. Accountability	How much is the program used and how much does it cost? • cost side of 'value for money' • attendance/user numbers • cost per unit.
3. Fine-tuning	How could the program be improved? • which elements work best and why? • satisfaction surveys (participants and administrators).
4. Micro impact	How effective is the program against its objectives? • benefit side of 'value for money' • measures must match *Need* (1).
5. Macro impact	What impact is the program having relative to the big policy picture? • how does it compare against other initiatives? • measures must match *Need* (1).

* Adapted from Jacobs' (1988) *Five-tiered approach to program evaluation* as presented in Fox et al (2005)

Source: O'Connell for the NZ Retirement Commission, 2007, p. 22.

Notwithstanding these suggestions, both the UK and NZ reviews caution that 'evaluation of financial education is inherently difficult, and the impact of any one programme can probably never be fully isolated' (O'Connell for the NZ Retirement Commission, 2007, p. 1). Financial literacy is a long-term goal and, like any long-term behavioural change strategy, it is subject to a wide array of causal factors and a constantly shifting external environment.

Since the UK and NZ studies, the OECD has identified the development of best practice guidelines to support evaluation of financial education programs as a top priority and established a dedicated 'Measurement' sub-group under its International Network on Financial Education (INFE).[118]

[118] For more information about the INFE's initiatives, including its guidelines, see: www.oecd.org/document/50/0,3343,en_39665975_39666038_39711282_1_1_1_1,00.html.

The UK and NZ reviews also recognise that robust evaluation is costly and time-consuming, a key concern for American financial professionals and educators surveyed by Lyons et al in 2006: see Table 18. Unfortunately the cheapest and quickest method of evaluation (i.e. a simple satisfaction survey) is the least reliable.

Table 18: Barriers and challenges associated with program evaluation (Lyons et al, 2006)

Barriers and challenges	Percent
Most common barriers and challenges:*	
Not enough time	59.5%
Conducting follow-ups with program participants	52.3%
Limited financial resources	48.3%
Difficult to motivate program participants to complete evaluation	38.9%
Lack of existing evaluation materials and resources	34.6%
Lack of attention paid to evaluation	29.9%
Do not feel comfortable conducting a program evaluation	8.1%
Other barriers and challenges:	N/A
Lack of support by administration for program evaluation	
Administrators have lack of understanding of the role of education	
Lack of manpower	
Obtaining funding to support program evaluation	
Participants' lack of interest in evaluation	
Difficult to track participants over time to show program impact	
Preparing evaluations for low-literacy and non-English speaking audiences	
Developing consistent measures and standards to make comparisons across programs	
Lack of personal expertise in evaluation	
Developing consistency with program delivery and the evaluation process	
Collecting consistent data and aggregating it at the state and national level	
Analyzing data and showing program impact with the data	
Difficult to create a standard evaluation process with a wide range of programs and audiences	
Lack of existing evaluation materials and resources	

* n=321; multiple answers were allowed.

Source: Selected extract from Lyons et al, 2006, p. 229.

It is presently difficult to judge whether the benefits of financial literacy interventions outweigh the costs, and indeed some have actively challenged the value of financial literacy education in particular. For example, Willis

(2008) argues that the ‘effectiveness of financial literacy education lacks empirical support’ and the ‘pursuit of financial literacy poses costs that almost certainly swamp any benefits’ (including non-monetary costs) (p. 3). Instead, Willis believes ‘the search for effective financial literacy education should be replaced by a search for policies more conducive to good consumer financial outcomes’ (Abstract).

A 2008 review the FSA commissioned into the implications of behavioural economics for financial capability also questions the merits of financial literacy education in favour of other approaches:

> Overall, there is a lack of direct evidence that the National Strategy for Financial Capability will substantially improve long-term financial decision making. The indirect evidence from behavioural economics is that low financial capability is more to do with psychology than with knowledge. Institutional design and regulation are probably far more effective than education, though crisis counselling may be helpful. More research is needed on whether cognitive biases can be overcome in the personal finance domain (de Meza et al for the FSA, 2008, p. 4).

While not going so far as to abandon its financial capability initiatives, the FSA endeavoured to take into account these findings when undertaking cost–benefit analysis.

Since then, it has established the Consumer Financial Education Body (CFEB), a body responsible for helping consumers understand financial matters and manage their finances better. The CFEB is committed to examining behavioural change programs and commissioned a study by Elliott et al (2010) that examined a number of financial capability interventions. The study concluded that there was ‘enormous scope to alter the [decision] environment in a way that encourages greater levels of financial capability’ and that, while the process was at an early stage, ‘well-structured research leading to interventions being implemented and evaluated to ensure that the desired creation of financial capability is taking place’ was an essential element (p. 71).

Campaigns (key social marketing principles)

Financial literacy seeks to address something the Australian Public Service Commission (APSC) has termed a ‘wicked problem’—a complex policy problem that goes ‘beyond the capacity of any one organisation to understand and respond to’ and attracts conflicting views about ‘the causes of the problems and the best way to tackle them’ (APSC, 2007a, p. 1). While acknowledging that tackling wicked problems is an ‘evolving art’, the APSC has recommended that a collaborative, innovative and flexible approach is needed to address such problems (APSC, 2007a, p. 35).

In a related paper, *Changing behaviour: A public policy perspective* (2007b), the APSC emphasises the need for governments to go beyond a rational choice model that 'assumes people rationally seek to maximise their welfare' and instead attempt to address behaviour at the individual, interpersonal and community levels (APSC, 2007b, p. 7). The APSC also advocates social marketing as a useful practical tool in influencing people's behaviour.

While the definition and scope of social marketing is fluid, it essentially refers to the use of marketing techniques to influence and improve personal and social wellbeing. In a literature review commissioned by ASIC, Flowers et al defined social marketing as simply:

> An organised effort by one group that is designed to persuade people in another group to change … their social beliefs, attitudes and behaviours (Flowers et al, 2001, pp. 5, 29).

In Australia, much of the literature about social marketing appears within the health field. Below are the 12 key principles of an effective social marketing approach devised by Kotler and Lee and advocated by the APSC (2007b, pp. 21–26). These principles are supplemented with finance-based findings from other relevant sources.

1. Take advantage of prior and existing campaigns

The planning stage of a social marketing campaign should include reviewing the efforts of others, including both successes and failures. There are a number of ways this can be done, including networking directly with other agencies and simple internet research. For example:

- *Tools of Change* (www.toolsofchange.com) is a Canadian website that contains 100 case studies of public campaigns designed to change behaviour.
- There is also a social marketing 'wiki', which includes resources and a discussion forum: see www.socialmarketing.wetpaint.com.
- The OECD has a website listing some of the available research about financial literacy, called the *International Gateway for Financial Education (IGFE)*.[119]
- The *Social Marketing Downunder* website has a number of Australian and New Zealand case studies and research papers: see www.socialmarketing.co.nz.

[119] The IGFE is available at: www.oecd.org/pages/0,3417,en_39665975_39666038_1_1_1_1_1,00.html.

In 2001, ASIC commissioned Flowers et al to review the literature on effective education techniques. While they found conflicting views about the most effective way to conduct a social marketing campaign, 'a central feature of most campaigns [was] the need to recognise the diversity of people's backgrounds and experiences' (Flowers et al, 2001, p. 38).

Helpfully, Flowers et al also identified examples of what doesn't work. For example, Quay Connections (2001) reviewed 40 Australian social marketing campaigns and concluded that campaign failures were most commonly due to:

- inadequate market segmentation and failure to tailor or target messages according to market segmentation
- lack of clarity in messages
- doubts about message credibility
- inadequate levels of community involvement
- lack of coordination with or involvement from key stakeholders, partners or champions
- inadequate lead time to develop relationships with community groups, stakeholders or partners
- failure to capitalise on developments in the broader environment (cited in Flowers et al, 2001, p. 34).

2. Target people most ready for action

Social marketing suggests that the most efficient way to prioritise resources is to focus on those most likely to change. One common way to classify and identify people is the 'stages of change' model, sometimes referred to as the 'transtheoretical model of change' (TTM). People do not necessarily move through these stages in a linear direction and may be caught in one stage for long periods of time. The model is also applied at a program level (e.g. credit counselling (Xiao & Wu, 2006)).

Table 19: 'Stages of change' model

Phase	Characteristics
Pre-contemplation	Oblivious to or in denial about need to change. No intention to change behaviour.
Contemplation	Beginning to think about changing, and might be aware of the need for and/or the benefits of change. No commitment to change behaviour.
Preparation/action	Commitment to new behaviour and possibly some observable change in behaviour but new behaviour is not yet habit.

Phase	Characteristics
Maintenance	Maintaining commitment and regularly performing new behaviour but managing/avoiding ‘relapses’.
Termination	New behaviour is a fully integrated habit.

Source: Adapted from information in APSC, 2007b; Xiao & Wu, 2006; O’Neill et al, 1999. The TTM was developed by Prochaska et al.

Existing research indicates that Australians generally support the idea of financial literacy, including government involvement (Fear, 2008), and have some appetite for financial education across a range of money topics: see Appendix 1 Table A1.15. However, as demonstrated in Section C, people don’t necessarily know what they don’t know and they have trouble carrying out their good intentions. This also makes it difficult to assess existing findings.

For example the Financial Literacy Foundation (FLF, 2008) found that 68% of women believe it is important for them to learn more about how to invest money now, yet ASIC (2008b) research found that only 8% of female investors have attended paid training courses or seminars. Given the many possible reasons for these conflicting results (e.g. social desirability bias, low confidence, competing priorities, a preference against group learning, limited time, cost restraints), caution must be exercised when assessing which stage of change particular groups and/or individuals are in.

3. Promote single, doable behaviours—one at a time

As discussed in Section C, people can become bewildered by too much information and choice, leading to inertia and/or ineffective actions. Therefore a successful social marketing campaign must promote simple, clear messages. Where messages are complex, they should be broken down into single steps or ‘calls to action’ (e.g. ‘ring this hotline’, ‘visit this website’). These simple, action-oriented messages are particularly important for those in the ‘contemplation’ or ‘preparation/action’ stages of change.

This was a method used by the Financial Literacy Foundation (FLF, 2006) in its *Understanding Money* media campaign. The aim was to raise awareness about the importance of managing money and the call to action was to visit the *Understanding Money* website. Over the 19 weeks of the campaign, 243,691 people made 333,381 visits to the website and the most popular parts of the site were activity-related:

- the budget planner (86,270 visits)
- ordering the handbook (54,081 visits)
- the financial health check (59,983 visits).

4. Identify and remove barriers to behavioural change

Sustained, widespread behavioural change is unlikely if barriers, such as those identified in Section C, are not addressed. While this principle is usually directed at environmental barriers rather than the individual, it is important to identify the reasons why a particular target group feels unable or unwilling to carry out the desired behaviour.

Given the nature of the barriers raised in this report, we need to recognise that single measures (e.g. a large-scale advertising campaign) are unlikely to work in isolation, and that education is only one tool in the behavioural change toolbox. Other regulatory responses might include, for example:

- helping raise the quality of (and access to) personal financial advice
- improvements to disclosure
- addressing misleading advertising.

We also need to remember that ASIC is only one player in the cause to remove barriers. The financial wellbeing of Australians is the responsibility of a wide range of stakeholders, including industry, government, communities and individuals. Where possible (and appropriate), we should aim to pool resources and establish a consistent voice.

Interestingly, the work of behavioural economists provides us with an opportunity to turn barriers into advantages. Based on the argument that departures from rationality are often, though not always, systematic (Barber & Odean, 1999), some have designed interventions that use the same behavioural biases that currently hinder people's financial decisions to instead *improve* their financial outcomes, a strategy referred to as 'libertarian paternalism' (Thaler & Sunstein, 2008, p. 4).

Specific examples are covered later in this report under the discussion about programs (see pp. 62–69) but they include:

- soft compulsion (e.g. opt-out defaults)
- self-commitment devices (e.g. agreeing to a future automated debit into a savings account).

Thaler & Sunstein (2008) argue that people need these 'nudging' devices 'for decisions that are difficult and rare, for which they do not get prompt feedback, and when they have trouble translating aspects of the situation into terms that they can easily understand' (p. 72).[120]

[120] Thaler & Sunstein (2008) define the term 'nudge' as 'any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives' (p. 6). The word 'nudges' also stands for the six principles Thaler & Sunstein recommend for 'choice architects' when designing systems to improve people's financial (or other) outcomes:
i**N**centives; **U**nderstand mappings; **D**efaults; **G**ive feedback; **E**xpect error; **S**tructure complex choices (p. 100).

Again, while these theories and experiments are promising, there is consensus (even among those who support behavioural economics) that it is presently difficult to integrate behavioural economics into policy (Sandlant, 2007; Frijters in Productivity Commission, 2007).[121]

5. Bring real benefits into the present

As discussed in Section C, the long-term nature of many financial decisions can be especially difficult for people to conceptualise and process (e.g. retirement savings, mortgages and life insurance). In the face of widespread myopia, and in the interests of presenting messages in the most compelling way possible, campaigns need to emphasise the benefits of the new behaviour (and the disadvantages of the old behaviour) as close to the present time as possible. This is a strategy increasingly used in health campaigns:

> … physicians reportedly lament the fact that warning about the risk of skin cancer from excessive sun exposure is less effective than warning about sun exposure's tendency to cause acne. In fact, "quit smoking" campaigns have begun to stress the immediate benefits of quitting (quick reduction in chances of heart attack, improved ability to taste foods within two days, and so on) more prominently than the substantial long-term benefits (Shafir in Productivity Commission, 2007, p. 18).

Although it is a long-term investment, superannuation is one area in which there is scope to improve people's appreciation of the benefits involved. For example, ASIC's retirement decision research (2004) found that even recent retirees misunderstood the tax benefits of superannuation and allocated or life pensions/annuities.

More recently, the latest ANZ financial literacy survey (2008) found that 27% of people were unsure whether or not super was taxed at a higher or lower rate than other investments (only 58% thought it was taxed at a lower rate). Similarly, Table 20 shows that important superannuation advantages, such as the government's co-contribution scheme, are poorly understood. This scheme is an example of one that could focus on the immediate part of the benefit (i.e. the 'free' money that goes into the fund sooner rather than later).

[121] For a summary of some of the ways in which behavioural economics might be applied to policy, see *Behavioural economics: seven principles for policy-makers* (Dawnay & Shah, 2005).

Table 20: Awareness of advantages of superannuation over other investments (ANZ, 2008)

Advantages	Percent*
Tax-related advantages:	
Lower tax/favourable tax treatment of contributions	30%
No tax on payments if you're 60 years or older	8%
No tax on superannuation fund if it's paying a pension	6%
Nature of investment:	
Money is locked away so you can't get at it	29%
Secure/safe/low-risk	15%
Long-term investment gives good return	7%
Other advantages:	
Government co-contribution	9%
Compulsory, regular contributions	6%
All other responses	6%
Can't say**	20%

* The sample for this question included only superannuation fund members who were under age 65 (n=766).

** More common among young people aged 18 to 24 years (35%) and members of Quintile 1 (46%) and Quintile 2 (34%).

Source: Selected extract from ANZ, 2008, p. 77.

6. Highlight costs of competing behaviours

Messages should emphasise what will happen to the target audience if they continue to engage in the old, undesirable behaviour. As described in Section C, people are sensitive to the way messages are framed and tend to weigh losses about twice as much as gains. Therefore, focusing on what might be lost by failing to act might prove more successful than emphasising gains.

However, negative messages in isolation might feed the very emotions that are causing people's inertia in the first place (e.g. under-confidence, fear, regret, hopelessness). We must carefully balance negative and/or confronting messages with tangible, straightforward counter actions that the audience feels are within their reach: see principles 3 and 7. Indeed, evidence from health campaigns indicates that consumers tend to understand, value and respond to messages of fear, threat or risk when they believe they are personally relevant and when they are accompanied by brief, simple and feasible solutions (Flowers et al, 2001).

7. Promote a tangible object or service to help target audiences perform the behaviour

Tangible objects or services such as helplines are believed to provide encouragement, remove barriers and create more attention, appeal and memorability.

In the United Kingdom, the Thoresen Review (2008) examined the feasibility of delivering a national generic financial advice tool and concluded that significant benefits would flow from a multi-channel (phone, web and face-to-face) *Money Guidance* service to help people with a wide range of money matters.

Nevertheless, the United Kingdom's *AXA Avenue* intervention, in which one-half of the residents in a British street were offered free professional advice and were evaluated against those not offered the advice, found that even those given free professional advice struggled to remain engaged:

> "Filling in the forms was such a chore. It was like doing homework." This was a recurring theme and highlights how difficult the task is for anyone interested in improving the nation's financial understanding. Unless there is a promise of some sort of tangible financial gain, or alternatively the threat of a "supervisor" or "parental" figure who checks, people do not have the inclination to take control of their finances. There are too many distractions in life (AXA, 2007, p. 15).

8. Consider non-monetary incentives in the form of recognition and appreciation

This principle suggests considering what can be given to the target audience in recognition and appreciation of their behavioural change. Non-finance examples include:

- a window sticker for businesses that adopt environmentally friendly practices
- a letter from a community health clinic congratulating a client on being smoke-free for 30 days.

These methods are often less expensive than direct monetary incentives and have the added benefit of 'social proof', in which the behaviour becomes desirable among, and spreads within, peer groups.[122] They also act as useful reminders for those trying to avoid 'relapses'.

As well as considering innovative non-monetary incentives to recognise and reward those who take steps to improve their financial wellbeing, ASIC could make use of its existing non-monetary resources. While not linked to actual changes in behaviour, anecdotal evidence suggests that some Retirement Expo attendees visit the ASIC stall because they are attracted to ASIC's FIDO showbags (e.g. they have seen other expo attendees with the bags). Anecdotal feedback also suggests that some of the booklets in the

[122] For more information about the important role of social networks in changing behaviour see the APSC's (2007b) discussion about social capital theory (p. 17). See also Brobeck's (1999) discussion about the 'tipping point', which is said to occur when approximately half the community have changed their behaviour (p. 7).

showbags are not only read by the expo attendees but also recommended and passed on to family members and/or friends.

9. Have a little fun with messages

While using humour and fun can be risky, used appropriately it is very effective at securing attention, appeal and memorability.

Scam campaign research commissioned by the Australasian Consumer Fraud Taskforce (ACFT, 2008) suggests that the use of personal stories is also an important and valuable tool to engage the audience with the campaign messages.

Creative use of channels is also effective. The Monetary Authority of Singapore (MAS) delivered its national financial education program, MoneySENSE, through innovative games, including a TV game show which attracted 1.3 million viewers and led to an increase in demand for its MoneySENSE talks (ASIC, 2008e, pp. 8–9).

Messages need not only be delivered directly to the target audience. For example, they might reach the target audience through a respected third party (e.g. a family member, friend, employer, teacher or community leader). Indeed, research suggests that messages can be particularly powerful when they come from someone the target audience knows and/or identifies with:

> People are more likely to hear and personalise a message that may result in changing their attitudes and behaviour if they believe the messenger is similar to them in lifestyle and faces the same concerns and pressures (Sloane & Zimmer, 1993 cited in Saunders & Sampson, 1998, p. 29).

Similarly, in its survey of Australian investors, ASIC (2008a) found that 8% of investors who had attended a paid investment seminar did so because friends (4%) or family (4%) had recommended it or invited them along.

10. Use media channels at the point of decision making

Sometimes the best time to engage with a target audience is when they are about to choose between alternative, often competing, behaviour. This is the rationale behind graphic warnings on cigarette packets and prominent logos such as the ‘Made in Australia’ symbol on locally produced products.

ASIC might, for example, run advertisements in the same section of the newspaper as risky investments. After research found that UUD investors testing a new ASIC investor guide would expect to see the guide before they invested (distributed by the debenture issuer along with the prospectus), ASIC has encouraged issuers of UUDs to do just that.

However, care must be taken when assessing the point at which a decision will be made—some decisions are formed instantly and some over time.

Indeed, Consumer Affairs Victoria (2006) has noted that 'information disclosed as consumers make a final commitment to a deal may be too late because the consumer is already locked in to a decision' (p. 11).

11. Get commitments and pledges

This principle is based on the belief that commitments and pledges to perform a particular behaviour can significantly increase the likelihood that the target audience will change their behaviour. Tips to increase the likelihood of a successful commitment include:

- start with small requests (research suggests that people who agree to small changes are more likely to agree to a subsequent larger change)
- written commitments 'stick' better than oral ones
- where possible, it is best to facilitate a commitment with face-to-face interaction
- seek commitments in groups (e.g. ASIC's staff speaker events, workplace training, school classrooms)
- seek commitments at existing points of contact
- use durable forms and formats to display commitments.

12. Use prompts for sustainability

Reminders are an important tool to help fight procrastination and inertia. They work best for those who have already started to engage in the new behaviour (e.g. those in the action and maintenance stages of change). They are often visual (e.g. posters, signs, packaging labels) but not necessarily so (e.g. could be delivered via follow-up calls, emails or online newsletters).

UK research group Decision Technology (2007) suggest that, because people are more likely to continue with tasks that make them feel good, prompts should aim to provide positive feedback and might even compare people's progress against under-performers to sustain motivation.

Personal reminders and prompts may have other benefits. For example, research conducted by Deloitte Eclipse for the Financial Literacy Foundation (FLF, 2007b) suggests that the more personalised a website is, the more likely people are to return to it.

Programs

The number of programs dealing with financial literacy has risen steadily in recent years. While some of these programs have not recorded or reported their outcomes, Table 21summarises the types of programs reported locally and abroad.[123]

Some programs are targeted at broad populations (e.g. the general public) and others at very specific groups (e.g. people in the defence forces).

Overall, the most common topic appears to be savings (e.g. everyday budgeting/savings and retirement savings).

The tools used to deliver financial education programs vary widely and warrant further testing and research:

> There has been no systematic testing of the delivery methods used to increase financial capability. This is a serious oversight. The process evidence that is available indicates that classroom or workshop delivery depends on the quality and suitability of the teaching materials available but also on the confidence of the teacher or facilitator. We know virtually nothing about the factors that might influence the success or failure of schemes using other forms of delivery (Atkinson for the FSA, 2008, p. 73).

Table 21: Nature of existing financial literacy programs

Target audiences	Topics	Delivery tools
• General public • School children/teenagers (primary and high school) • Employees/workplaces • Special audiences (e.g. low-income, defence forces, new parents, young adults, elderly)	• Budgeting/savings • Credit/debt management • Investment/retirement planning • Home ownership • Insurance • Tax • Mixed (bundled) topics	• Online resources/training • Group/classroom training • One-on-one training/coaching • Printed materials • TV/film • Mixed methods (including combining education with new product design/features)

Program aims vary: sometimes they seek to improve knowledge, sometimes behaviour, sometimes both, and sometimes it is unclear. Some rely on financial education only, and some have other elements such as personal guidance or matched savings schemes.[124] As mentioned earlier, programs are not always evaluated (or properly evaluated) or informed by pre-research about the target market.

Some program evaluations are returning negative results. For example, the US Jump$tart schools study has found that teenagers who do a personal finance course perform slightly worse in a program exam than those who haven't done the course (Mandell, 2006). More recently, an analysis of a set of state-mandated financial literacy education programs in the United States

[123] For more comprehensive information about the scope of the programs in the United States specifically, see Appendix 1 Table A1.19. For a review of programs in the 27 European Union (EU) member states, see Evers & Jung (2007).
[124] A local program called Saver Plus, which was developed by the ANZ and the Brotherhood of St Laurence for those on low incomes, has all three of these elements (Russell et al, 2008a, 2008b).

revealed they had no effect on individual savings decisions (Cole & Shastry, 2008). Possibly the benefits of these programs, and in particular school-based interventions, will appear in the longer term. Indeed, this was Atkinson's (2008) conclusion in her review of financial literacy evaluations for the FSA:

> In the shorter term there may be some improvement in *confidence* but the evidence that is currently available suggests that only the very youngest gain financial *knowledge* through school interventions. Rather, it appears that the main impact of school financial education is to improve *behaviour* in adulthood (p. 73).

This further supports the need for well-designed evaluation techniques. Without them, it is difficult to draw reliable conclusions about the program—a negative result might be due to poor evaluation design rather than poor program design and, conversely, positive results may reflect incorrect measures rather than real successes.

Again, the best measure isn't always the easiest or cheapest measure. The FSA review found that 'most evaluations that have identified measurable outcomes appear to have focused on savings behaviour, but it is not clear whether this is the easiest behaviour to change or the easiest to measure' (Atkinson for the FSA, 2008, p. 73). Overall, the review found that the evidence for improvements to 'money management' and 'planning ahead' was stronger than improvements in the other financial capability areas such as 'staying informed' (the area that includes knowledge), but that it was possible that short-term improvements in knowledge might only be retained through hands-on experience.

There is also evidence that some education interventions have unintended positive outcomes. For example, the FSA review observed that some workplace seminars designed to increase people's likelihood of saving for retirement have also positively impacted recruitment and retention. Nevertheless, Choi et al (2001) (see pp. 44–45) argue that seminars alone (or at least the type of seminars tested) only make a modest difference to behaviour:

> Most employees feel that they save too little, and many plan to raise their contribution rate in the near future, but few act on these good intentions. By contrast, employees do succeed in raising their contribution rates if they are given a low effort opportunity to sign up for an automatic schedule of increases in their contribution rate. All of these examples have a common theme: employees often take the path of least resistance (p. 32).

For this reason, some financial interventions have incorporated findings from behavioural economics. While still voluntary, these programs are designed to help people to who want to save more but lack the willpower to act.

Save More Tomorrow (SMarT)

One key example is Thaler & Benartzi's (2004) trial of the Save More Tomorrow (SMarT) program in which employees commit in advance to allocating some of their future salary increases toward their retirement savings. The design of the program takes advantage of three behavioural biases in particular: see Table 22. Importantly, the employee can opt out of the plan at any time, which is designed to make them feel more comfortable about joining and also gives them some degree of choice.

Table 22: SMarT program (Thaler & Benartzi, 2004)

Behavioural bias	How SMarT aims to address/use bias
Hyperbolic discounting	Employees are approached about increasing their contribution rates a considerable time before their scheduled pay increase. Because of hyperbolic discounting, the lag between the sign-up and the start-up dates should be as long as feasible.
Loss aversion	If employees join, their contribution to the plan is increased, beginning with the first paycheck after a raise. This feature mitigates the perceived loss aversion of a cut in take-home pay.
Inertia/status quo bias	The contribution rate continues to increase on each scheduled raise until the contribution rate reaches a preset maximum. In this way, inertia and status quo bias work toward keeping people in the plan.

Source: Thaler & Benartzi, 2004, pp. 170–171.

This program has been tested in the United States across three different firms, each under slightly different conditions (e.g. some gave employees access to a one-on-one financial consultant and some didn't).

The first firm, a manufacturing company, initially gave eligible employees the opportunity to speak with an external investment consultant about their retirement savings levels. Of the 315 eligible employees, 286 agreed to talk to the consultant. However, only 79 (28%) were willing to accept the consultant's advice. The remainder were given the opportunity to join the SMarT plan instead, of which 162 (78%) did.

The results for this group were very positive, and have remained positive, over four subsequent pay increases:

- Most participants did not change their mind once the savings increases took place:
  - 80% remained in the plan through all four pay increases

  - three participants (2%) dropped out of the plan prior to the second pay increase, 23 (14%) dropped out between the second and third pay increases and six (4%) between the third and forth pay increases.
- Even those who withdrew from the plan saved significantly more than before the plan (i.e. they did not reduce their contribution rates to the original levels but rather stopped future increases from taking place).
- Those participating in the SMarT plan ended up with a much higher saving rate than those who accepted the consultant's recommendation.

SEED (Save, Earn, Enjoy Deposits)

Ashraf et al (2005) had similar success with a commitment savings program tested in the Philippines called SEED (Save, Earn, Enjoy Deposits)—a commitment-based bank savings account in which eligible customers could choose the type of withdrawal restriction that applied.[125] Importantly, all participating customers, regardless of the type of restriction they chose, were encouraged to set a specific savings goal as the purpose of their SEED savings account, and this goal was written on:

- the bank form used to open the account
- a 'Commitment Savings Certificate' that was given to customers to keep.

Before selecting participants for this field experiment, the researchers first conducted a baseline survey with 1777 existing or former customers of a real bank. The survey included questions designed to identify people's time discounting preferences (i.e. to identify those who might have a preference for commitment).[126] One month later, 710 of the original customers were randomly selected and offered the commitment product. Of these, 202 (28%) opened an account. The researchers found that 'women who exhibited a lower discount rate for future relative to current tradeoffs, and hence potentially have a preference for commitment, were indeed significantly more likely to open the commitment savings account' (Ashraf et al, 2005, p. 1).[127]

Importantly, Ashraf et al used a control group during this field experiment. Those not offered the SEED product were assigned to either:

- a control group that received no further contact, or
- a marketing group that received a special visit to encourage savings using traditional, existing savings products.

[125] One withdrawal restriction was based on reaching a predefined date and one on reaching a certain monetary limit. Once the decision was made, it could not be changed and withdrawals were restricted until the chosen goal was met. Of the 202 opened accounts, 140 opted for the date-based goal and 62 opted for the amount-based goal.
[126] More specifically, the researchers were looking for answers indicating impatience in relation to near-term trade-offs but patience in relation to future trade-offs.
[127] A similar trend was observed for men but it was not statistically significant.

After a year, the average savings balances of those who accessed the SEED product increased by 81 percentage points relative to those assigned to the control group, suggesting not only that the intervention was successful at raising people's savings levels, but also that the result was less likely to be a 'short-term response to a new product' (Ashraf et al, 2005, p. 1).

Saver Plus

Saver Plus was developed to help people on low incomes establish a long-term savings habit. The program works by matching people's savings dollar-for-dollar once they reach their savings goal, to a maximum amount.[128] ANZ (2009) research conducted by Chant Link and Associates identified sustained behavioural change in some participants as a result of the Saver Plus program, and analysed these outcomes within a behavioural economics framework. The three levels of change the researchers identified were:

- *Significant change*: For some participants, Saver Plus was transformational. These people tended to complete the program and exhibited sustained behavioural change and 'major' positive outcomes.
- *Moderate change*: For these Saver Plus participants, the program had some positive impact (e.g. new skills or financial benefits) but did not significantly change their longer-term financial situation.
- *No change*: Some Saver Plus participants exited the program (either prematurely or at completion) and reported no impact on either attitudes or behaviour. This included 'early leavers' who had positive attitudes towards the program but believed that their lives would be unaffected by it, and also participants who entered the program with pre-existing savings habits who completed it but claimed to have learned little.

The research suggested that certain program elements increased the likelihood of behavioural change, including the involvement of a 'relationship manager', financial education workshops, matching funds, and the program rules in general.[129] These factors influenced participants at different stages of the program (e.g. the financial incentive tended to be most successful in encouraging participation at the start). Although all program elements were found to be important, overall the most critical were, in order of importance:

- the involvement of the relationship manager (they motivated, encouraged, supported, educated and even bonded with participants)
- the personal relevance of the savings goal.

[128] The maximum matched amount was $1000 at the time the research was conducted. This amount was subsequently reduced to $500.
[129] The 'relationship managers' worked closely with the Saver Plus participants to help them set and achieve their savings goal. The relationship managers were from community organisations, including the Brotherhood of St Laurence, the Benevolent Society and the Smith Family.

The research also identified four key participant characteristics that influenced outcomes:

- level of personal motivation
- level of stability (work, family, life)
- financial skills and level of financial stress
- presence of support networks.

Further research needed

More research is required to explore how behavioural studies might be applied to programs designed to improve people's financial outcomes. For example, the review the FSA (de Meza et al for the FSA, 2008) commissioned into the implications of behavioural economics for financial capability recommended that further research is necessary to see whether people can learn techniques that help them recognise and 'neutralise' the biases that thwart their decision making. Therefore, 'what should be taught may not be explicit financial capability but thinking skills' (de Meza et al for the FSA, 2008, p. 69).

The FSA review also suggests that two of Willis' (2008) proposals might prove promising:

- *Norm manipulation:* This involves integrating suitable, simple financial rules of thumb as widely as possible (i.e. something like the 'don't drink and drive' message).
- *Accessible face-to-face crisis counselling:* In this case, an individual knows they are in trouble and gets specific advice about what to do and, if necessary, help with filling in forms.

Norms are also an essential component of the 'changing contexts' approach advocated by Elliott et al (2010) in their preliminary examination of financial literacy interventions for the CFEB. In particular, they highlight the MINDSPACE framework, which focuses on:

- ***M**essenger:* We are heavily influenced by who communicates information.
- ***I**ncentives:* Our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses.
- ***N**orms:* We are strongly influenced by what others do.
- ***D**efaults:* We 'go with the flow' of pre-set options.
- ***S**alience:* Our attention is drawn to what is novel and seems relevant to us.
- ***P**riming:* Our acts are often influenced by sub-conscious cues.
- ***A**ffect:* Our emotional associations can powerfully shape our actions.

- ***C**ommitments:* We seek to be consistent with our public promises, and reciprocate acts.
- ***E**go:* We act in ways that make us feel better about ourselves (p. 11).

Others add that further research is needed to test proposed interventions before implementation, and that policy-makers should bear in mind the high likelihood that such interventions will have unintended and variable effects:

> There is such an abundance of findings in behavioural economics that we can predict that any interventions proposed are likely to have unanticipated consequences (even if that means only that they don't have the effects they are supposed to have) … it is inevitable that these solutions may not work as expected, and to reiterate a frequently repeated theme, I recommend that even modest changes to policy be field tested before implementation (Read, 2007, p. 62).

Policy-makers are also cautioned against a narrow view about what is required to help people attain good financial outcomes:

> A second consequence of behavioural economics for the construction of policy is that we cannot begin the task with the assumption that consumers know what they want, so that our goal is to make it easy for them to choose it. Rather, any intervention in the marketplace will create preferences as well as facilitate their expression. Policy discussions must always involve normative questions of what is best for the consumer, as well as the delicate question of how far we should go to help them achieve it (Read, 2007, pp. 62–63).

Conclusion

In closing, while there appears to be little certainty about the ultimate direction of financial literacy, there does seem to be reasonable consensus that:

- more (and better) research is necessary before we can adequately assess which strategies work best and why
- it seems unlikely that the problems financial literacy seeks to address will be resolved by education alone.

Regardless of the debates about the best way to change people's behaviour for the better, most agree that there is a genuine need to do so, and that the government plays an important role:

> Ultimately we have to realise that people have weaknesses and limitations. People realise that themselves—they want help and are willing to ask for it, including from government (Shafir in Productivity Commission, 2007, p. 145).

Appendix 1: Detailed tables

Table A1.1 gives detailed information about the research items (sources) listed in Tables A1.2 to A1.16 and the research methodology used. Some of the information in Tables A1.2 to A1.16 is sourced directly and some has been paraphrased for ease of reference.

Table A1.1: Research sources used for Tables A1.2–A1.16

Research item (source)	Research title	Methodology/sample	Method(s) used to assess behaviour and/or financial literacy[130]
ABS (2009)	Retirement and retirement intentions	The ABS presents information about the retirement status and retirement intentions of people aged 45 years and over who have, at some time, worked for two weeks or more. The statistics presented are compiled from data collected in the Multi-Purpose Household Survey (MPHS) that was conducted throughout Australia in the 2008–09 financial year as a supplement to the ABS monthly Labour Force Survey (LFS). Total sample: 6647 people aged 45 years and over.	Subjective assessment
ABS (2008a)	Personal fraud	The ABS in consultation with the ACFT conducted the personal fraud survey throughout Australia in 2007. This was part of the 2007–08 MPHS, which was a supplement to the monthly LFS. One randomly selected person per household aged 15 years and over was asked about their experiences of personal fraud, providing information about incidents that occurred over a 12-month period prior to the date of interview. Total sample: 14,320 randomly selected Australians aged 15 years and over.	Subjective assessment
ABS (2008b)	Retirement and retirement intentions	The AB S presents information about the retirement status and retirement intentions of people aged 45 years and over who have, at some time, worked for two weeks or more. The statistics presented are compiled from data collected in the MPHS that was conducted throughout Australia in the 2006–07 financial year as a supplement to the ABS monthly LFS. Total: 7168 people aged 45 years and over.	Subjective assessment

[130] Methods used to assess behaviour and/or financial literacy include:
Subjective assessments, which rely on people’s perceptions, attitudes, self-reported behaviour and self-assessed level of financial knowledge.
Objective assessments, which measure and test people’s understanding of financial terms through methods like ‘quiz style’ or ‘true/false’ questions.
Combination assessments, which use both objective and subjective measures to assess behaviour and/or financial literacy.

Research item (source)	Research title	Methodology/sample	Method(s) used to assess behaviour and/or financial literacy[130]
ANZ (2009)	Understanding the success of Saver Plus	The ANZ commissioned Chant Link and Associates to conduct qualitative in-depth interviews in 2009. Qualitative sample: 67 prospective participants, current participants, early leavers or graduates of the Saver Plus program.	Combination assessments
ANZ (2008)	ANZ survey of adult financial literacy in Australia	The ANZ commissioned the Social Research Centre to randomly survey Australians between 29 April and 6 June 2008. Total sample: 3500 randomly selected Australians aged 18 years and over.	Combination assessments
ANZ (2005)	ANZ survey of adult financial literacy in Australia	The ANZ commissioned AC Nielsen Research to randomly survey Australians between 21 April and 3 July 2005. Total sample: 3500 randomly selected Australians aged 18 years and over.	Combination assessments
ASIC (2008a)	Australian investors: At a glance	ASIC commissioned Roy Morgan Research to conduct the research between November 2006 and June 2007. Quantitative sample: 1217 investors (phone survey). Qualitative sample: 49 investors (focus groups, mini groups and interviews). Note that ASIC (2008b) is the long version of this research report.	Combination assessments
ASIC (2008c)	Understanding investors in the unlisted, unrated debenture (UUD) market	ASIC commissioned brandmanagement to conduct the research between October 2007 and March 2008. Quantitative sample: 1142 investors (online/phone questionnaires) across all investor groups (ACR/Fincorp, active and general investors). Qualitative sample: 3 focus groups and 12 in-depth interviews.	Subjective assessment
ASIC (2008d)	Complaint resolution in relation to financial institutions study	ASIC commissioned Newspoll Market Research to conduct a phone survey between 20 June and 22 June 2008. Total sample: 1200 people aged 18 years and over.	Subjective assessment
ASIC (2007a)	'All we have is this house': Consumer experiences with reverse mortgages	Total sample: 29 in-depth phone and/or face-to-face interviews with people who had taken out a reverse mortgage.	Subjective assessment
CBA (2007)	The Commonwealth Bank's 2007 'E-Money' survey highlights	Commonwealth Bank commissioned Galaxy Research to conduct a phone survey in April 2007. Total sample: 1100 people aged 16 years and over (quantitative survey).	Subjective assessment

Research item (source)	Research title	Methodology/sample	Method(s) used to assess behaviour and/or financial literacy[130]
CBF (2006)	Australian financial literacy assessment	An assessment asking Year 9 and Year 10 students 48 multiple-choice questions related to everyday financial situations. Total sample: 50,000 Year 9 and Year 10 students from over 500 schools across the Catholic, government and independent sectors in Australia.	Objective assessment
CBF (2004)	Improving financial literacy in Australia: Benefits for the individual and the nation	The CBF commissioned the Commonwealth Bank's Quantitative Research division, in partnership with Eureka Strategic Research and the Centre of Policy Studies, Monash University, to conduct a phone survey during August and September 2004. The survey consisted of 20 multiple-choice questions. Total sample: 5000 Australians aged 16 to 65 years.	Objective assessment
Citibank (2010)	Results and insights from the Citi Fin-Q Survey	The Citi Fin-Q Survey was conducted among 5200 people across 11 countries. However, these particular results are based on a representative sample of 500 Australians aged 18 years and over who were surveyed between 6 October and 12 October 2009.	Subjective assessment
Citibank (2008)	Results and insights from the Citi Fin-Q Survey	The Citi Fin-Q Survey was conducted among 4400 people across 11 countries. However, these particular results are based on a representative sample of 400 Australians aged 18 years and over who were surveyed between 8 October and 12 October 2007.	Subjective assessment
Fear (2008)	Choice overload: Australians coping with financial decisions	Quantitative sample: online survey of 1002 Australians aged 18 years and over. Qualitative sample: 6 focus groups held in Wollongong, Canberra and Adelaide, in late September and early October 2007.	Subjective assessment
FINSIA (2009)	Generational wealth divide research	FINSIA commissioned UMR Research to conduct the research in 2009. Quantitative sample: online survey of 1000 Australians aged 18 and over. Qualitative sample: 3 focus groups, which included a mixed-gender cross-section of Australians delineated by age, although each group contained subsets of people with home mortgages and who expressed concern about their superannuation.	Subjective assessment

Research item (source)	Research title	Methodology/sample	Method(s) used to assess behaviour and/or financial literacy[130]
FINSIA (2006)	Saving the future: Can the under-40s afford to grow old?	FINSIA commissioned Crosby|Textor to conduct the research in 2005. Quantitative sample: survey of 600 Australians aged 25 to 44 years conducted between 15 September and 19 September 2005. Qualitative sample: two focus groups held in Sydney in July 2005.	Subjective assessment
FLF (2007a)	Financial literacy: Australians understanding money	The FLF commissioned DBM Consultants to conduct the research. Quantitative sample: a survey of 7500 Australians aged 12 to 75 (6947 adults aged between 18 and 75 and 533 youths aged between 12 and 17 years). Qualitative sample: 140 interviews with people sourced from the quantitative sample.	Subjective assessment
FPA (2007)	Consumer attitudes to financial planning	FPA commissioned Galaxy Research to conduct a phone survey between 23 March and 25 March 2007. Total sample: 1100 people aged 16 years and over.	Subjective assessment
IFSA (2008c)	Report of findings of qualitative research into effective disclosure (stage II)	IFSA commissioned Wallis Consulting Group to conduct the research between 11 February and 29 February 2008. Total sample: 10 workshop groups across Victoria, NSW and WA among people who had changed or had considered changing their superannuation fund in the past 12 months. A further 12 in-depth interviews among people aged 30 years and over.	Subjective assessment
IFSA (2007)	Super decisions: Communicating with customers and effective disclosure	IFSA commissioned Investment Trends to conduct an online survey in June 2007. Total sample: 1572 people, including a target sample of 746 people who had changed super in the last 12 months.	Subjective assessment
MWS (2010)	Superannuation sentiment index	MWS conducted the research during December 2009 and compared results against previous surveys conducted in June 2009, December 2008 and June 2008. Quantitative sample: an online survey of 1033 full-time working Australians aged between 25 and 65. Qualitative sample: an unspecified number of interviews.	Subjective assessment

Research item (source)	Research title	Methodology/sample	Method(s) used to assess behaviour and/or financial literacy[130]
MWS (2009)	Superannuation sentiment index	MWS conducted the research during December 2008 and compared results against a previous survey conducted in June 2008. Quantitative sample: an online survey of 1022 Australians working full-time aged between 25 and 65. Qualitative sample: an unspecified number of interviews.	Subjective assessment
MWS (2006)	Mercer 2006 financial literacy and retirement readiness study	MWS conducted the research during March and April 2006. Quantitative sample: an online survey of 802 working Australians aged between 18 and 64. Qualitative sample: 4 focus groups among 39 recent retirees in Sydney and Melbourne.	Combination assessments

Table A1.2: What Australians know and do: Banking and payment/transacting methods*

What people know	Percent of respondents		Research item
Know how to use:	*2005*	*2008*	
ATM	92%	94%	ANZ (2005, 2008)
EFTPOS	90%	91%	ANZ (2005, 2008)
Credit card	92%	92%	ANZ (2005, 2008)
Direct debit	83%	87%	ANZ (2005, 2008)
BPAY	68%	72%	ANZ (2005, 2008)
Cheques	90%	88%	ANZ (2005, 2008)
Internet banking	62%	69%	ANZ (2005, 2008)
Telephone banking	71%	72%	ANZ (2005, 2008)
Lay-bys	83%	83%	ANZ (2005, 2008)
Money orders	82%	83%	ANZ (2005, 2008)
Store cards	71%	69%	ANZ (2005, 2008)
Payday loans	NA	15%	ANZ (2005, 2008)
What people do	**Percent of respondents**		**Research item**
Use:	*2005*	*2008*	
ATM	78%	80%	ANZ (2005, 2008)
EFTPOS	74%	76%	ANZ (2005, 2008)
Credit card	68%	65%	ANZ (2005, 2008)
Direct debit	60%	64%	ANZ (2005, 2008)
BPAY	46%	52%	ANZ (2005, 2008)
Cheques	44%	39%	ANZ (2005, 2008)
Internet banking	40%	51%	ANZ (2005, 2008)
Telephone banking	36%	32%	ANZ (2005, 2008)
Lay-bys	27%	25%	ANZ (2005, 2008)
Money orders	21%	20%	ANZ (2005, 2008)
Store cards	16%	13%	ANZ (2005, 2008)
Payday loans	NA	2%	ANZ (2005, 2008)
Have an ordinary or everyday account	97%	97%	ANZ (2005, 2008)
Have a high interest savings account	NA	46%	ANZ (2005, 2008)
Have a term deposit	22%	20%	ANZ (2005, 2008)
Take no steps or can't say what steps are taken to minimise everyday banking fees	21%	19%	ANZ (2005, 2008)
	2008	*2010*	
Have a bank account	100%	100%	Citibank (2008, 2010)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.3: What Australians know and do: Savings*

What people know	Percent of respondents		Research item
Have the ability and understanding to save	88%		FLF (2007a)
Recognise the importance of learning more about saving	65%		FLF (2007a)
Understand the benefits of a savings account	34%		FLF (2007a)
What people do	**Percent of respondents**		**Research item**
Don't save	22%		FLF (2007a)
Save on a regular basis	62%		FLF (2007a)
Only save when wanting to buy something big or special	15%		FLF (2007a)
Haven't saved in the last 6 months	4%		FLF (2007a)
Have an account that is just used for savings	72%		FLF (2007a)
	2008	*2010*	
Save money when they can	50%	45%	Citibank (2008, 2010)
Rarely save anything	22%	18%	Citibank (2008, 2010)
Disciplined enough to set aside something every time they get paid	28%	36%	Citibank (2008, 2010)
Don't know how long their savings would last	15%	13%	Citibank (2008, 2010)
	2005	*2008*	
Try to save on a regular basis	69%	72%	ANZ (2005, 2008)
No point trying to save because there's never enough money	11%	10%	ANZ (2005, 2008)
Have a high-interest savings account	NA	46%	ANZ (2005, 2008)
Have a term deposit	22%	20%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.4: What Australians know and do: Budgeting*

What people know	Percent of respondents		Research item
Have the ability and understanding to budget	90%		FLF (2007a)
Recognise the importance of learning more about budgeting	57%		FLF (2007a)
What people do	**Percent of respondents**		**Research item**
Do not budget regularly for their day-to-day finances	48%		FLF (2007a)
Have difficulty setting money aside for big purchases or spending	27%		FLF (2007a)
Unable to keep track of their everyday spending	18%		FLF (2007a)
Could not get by in case of a financial emergency	17%		FLF (2007a)
	2008	*2010*	
Can make and stick to their monthly budget	19%	21%	Citibank (2008, 2010)
Despite their best intentions they make a budget but don't always stick to it	60%	59%	Citibank (2008, 2010)
Are not organised enough to make a budget at all	21%	20%	Citibank (2008, 2010)
People with a poor or very poor understanding of personal finances don't budget at all	44%	NA	Citibank (2008, 2010)
	2005	*2008*	
Have problems setting money aside for major financial outlays	24%	24%	ANZ (2005, 2008)
Spend all of their income as soon as they get it and don't really plan for the future	14%	14%	ANZ (2005, 2008)
Do not keep a close eye on household and personal expenses	24%	23%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.5: What Australians know and do: Debt*

What people know	Percent of respondents	Research item
Confident in their ability to manage debt	89%	FLF (2007a)
Recognise the importance of learning more about managing debt	61%	FLF (2007a)
Able to choose the cheapest way to draw money	88%	CBF (2004)
Able to choose the best option when they cannot pay a bill	55%	CBF (2004)
Understand how to deal with spiralling debt	48%	CBF (2004)
What people do	**Percent of respondents**	**Research item**
Will get into debt by buying something they can't afford	21%	FLF (2007a)
Don't feel comfortable with their level of debt	17%	FLF (2007a)
Pay more than the minimum required on loans	32%	FLF (2007a)
Pay more than the minimum and make extra payments where they can	31%	FLF (2007a)
Don't regularly pay the total balance owing on their credit card when it's due	20%	FLF (2007a)
Pay only the minimum balance owing on their credit card when it's due	13%	FLF (2007a)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.6: What Australians know and do: Credit cards*

What people know	Percent of respondents		Research item
Confident in their ability to deal with and understand credit cards	83%		FLF (2007a)
Recognise the importance of learning more about dealing with credit cards	49%		FLF (2007a)
	2005	*2008*	
Able to correctly identify the most likely cause of bad credit rating	61%	59%	ANZ (2005, 2008)
Able to correctly determine information needed for a credit rating	29%	NA	ANZ (2005, 2008)
Able to correctly identify that the primary card holder is entirely responsible for debt incurred by a secondary card holder	72%	77%	ANZ (2005, 2008)
Able to choose the best way to reduce credit card interest	94%		CBF (2004)
Able to understand how personal credit ratings work	62%		CBF (2004)
What people do	**Percent of respondents**		**Research item**
	2008	*2010*	
Have a credit card	69%	73%	Citibank (2008, 2010)
	2005	*2008*	
Have a credit card	68%	65%	ANZ (2005, 2008)
Have a store card	16%	13%	ANZ (2005, 2008)
Missed loan/credit card repayments in the last 12 months	5%	8%	ANZ (2005, 2008)
Pay off monthly credit card balance in full	12%	12%	ANZ (2005, 2008)
Ensure minimum monthly payments are made on their credit card	5%	9%	ANZ (2005, 2008)
Check credit card or store card transactions	NA	93%	ANZ (2005, 2008)
Top three areas looked at when checking credit card transactions include:			
Transactions are correct and not fraudulent	NA	74%	ANZ (2005, 2008)
Check that everything is right	71%	28%	ANZ (2005, 2008)
Check account balance	21%	21%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.7: What Australians know and do: Loans and mortgages*

What people know	Percent of respondents		Research item
Able to choose the cheapest way to borrow (unsecured loan)	93%		CBF (2004)
Able to choose the cheapest way to borrow (secured loan)	51%		CBF (2004)
Understanding loan products:			
Which of the following is most likely to give someone a bad credit rating?	*2005*	*2008*	
Being more than 60 days late with the minimum payment on a credit card	61%	59%	ANZ (2005, 2008)
Taking out a second mortgage to buy your own home	11%	11%	ANZ (2005, 2008)
Borrowing from an organisation other than a bank	9%	11%	ANZ (2005, 2008)
Asking the bank for an increased overdraft	7%	6%	ANZ (2005, 2008)
Unsure	12%	13%	ANZ (2005, 2008)
If two people take out a loan, which one of the following most accurately describes the responsibility for repayment of the loan?			
Both persons are responsible for the repayment of the entire loan	80%	83%	ANZ (2005, 2008)
Each person is responsible for the repayment of half the loan	15%	12%	ANZ (2005, 2008)
Only one person must be responsible for repayment of the entire loan	3%	3%	ANZ (2005, 2008)
The older of the two persons is responsible for repayment of the entire loan	1%	<1%	ANZ (2005, 2008)
Unsure	1%	2%	ANZ (2005, 2008)
What people do	**Percent of respondents**		**Research item**
Loan products held:			
Own home or have a mortgage	62%		FLF (2007a)
	2008	*2010*	
Have a mortgage	38%	46%	Citibank (2008, 2010)
Have a personal loan/line of credit	30%	NA	Citibank (2008, 2010)
	2005	*2008*	
Have a mortgage on own home	29%	34%	ANZ (2005, 2008)
Have a mortgage on investment property	11%	11%	ANZ (2005, 2008)
Have a personal loan	14%	17%	ANZ (2005, 2008)
Have a line of credit or overdraft	12%	14%	ANZ (2005, 2008)
Have a lease or hire–purchase agreement	9%	9%	ANZ (2005, 2008)
Have a home equity loan	9%	7%	ANZ (2005, 2008)
Have a margin loan	2%	2%	ANZ (2005, 2008)
Have an equity release product	NA	2%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.7 (cont.): What Australians know and do: Loans and mortgages*

What people do (cont.)	Percent of respondents		Research item
Lending sources used in the last 12 months:	*2005*	*2008*	
Bank, building society or credit union	27%	24%	ANZ (2005, 2008)
Family or friends	14%	14%	ANZ (2005, 2008)
Store loan or interest-free/retailer finance	11%	10%	ANZ (2005, 2008)
Finance company	6%	7%	ANZ (2005, 2008)
Cash advance on salary	1%	1%	ANZ (2005, 2008)
Pawnbroker	1%	2%	ANZ (2005, 2008)
Payday lender	1%	1%	ANZ (2005, 2008)
Debt rescue or debt relief company	NA	<1%	ANZ (2005, 2008)
Other	1%	2%	ANZ (2005, 2008)
None of these	55%	55%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.8: What Australians know and do: Equity release product (reverse mortgages)*

What people know	Percent of respondents	Research item
Reverse equity loans:		
Know what a reverse equity loan is	46%	ANZ (2008)
Don't know what it is	51%	ANZ (2008)
Unsure	3%	ANZ (2008)
Things to consider when deciding whether or not to take out a reverse equity loan:		
Would never take one out	14%	ANZ (2008)
Interest rate	13%	ANZ (2008)
Conditions of the loan	11%	ANZ (2008)
Size of the loan that would be needed	10%	ANZ (2008)
My ongoing expenses	9%	ANZ (2008)
Whether it was really necessary	9%	ANZ (2008)
How children feel about it	7%	ANZ (2008)
Might need the money/equity to move into a retirement village	4%	ANZ (2008)
All other considerations	8%	ANZ (2008)
Don't know	33%	ANZ (2008)
Limited understanding of how reverse mortgages worked:		
Borrowers who did not know how much the loan was likely to cost them over time	14 out of 29	(ASIC 2007a)
Borrowers who were unaware of how compound interest works	6 out of 29	(ASIC 2007a)
Borrowers who did not know what would happen if they breached a loan condition	17 out of 29	(ASIC 2007a)
What people do	**Percent of respondents**	**Research item**
Have an equity release product	2%	ANZ (2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.9: What Australians know and do: Financial documents (financial statements, PDSs, prospectuses)*

What people know	Percent of respondents		Research item
Financial statements:			
Understand only some or none of the information provided in financial statements	21%		FLF (2007a)
Understand all or most of the information provided in financial statements	79%		FLF (2007a)
Year 9 students able to understand the term 'debit' on a bank statement	48%		CBF (2006)
Year 9 and Year 10 students able to understand the term 'credit' on a bank statement	25%		CBF (2006)
Superannuation fund statements—ease of understanding annual statements:	*2005*	*2008*	
Very difficult	6%	4%	ANZ (2005, 2008)
Difficult	28%	27%	ANZ (2005, 2008)
Easy	52%	53%	ANZ (2005, 2008)
Very easy	12%	12%	ANZ (2005, 2008)
Can't say	3%	4%	ANZ (2005, 2008)
Prospectuses:			
Type 1 investor rated their understanding as medium to high	6.7 out of 10		ASIC (2008c)
Type 2 investor rated their understanding as medium to high	7.0 out of 10		ASIC (2008c)
PDSs:			
People are confused about the role of PDSs. They view them either as a selling tool and/or an education tool, and/or a reference document.			IFSA (2008c)
Year 9 and Year 10 students able to understand the term 'product disclosure statement'	43%		CBF (2006)
What people do	**Percent of respondents**		**Research item**
Reading superannuation fund statements:	*2005*	*2008*	
Receive fund statements and read them	76%	75%	ANZ (2005, 2008)
Receive fund statements and don't read them	15%	17%	ANZ (2005, 2008)
Don't recall receiving fund statements	9%	8%	ANZ (2005, 2008)
Reasons for not reading superannuation fund statements:			
Couldn't be bothered	39%	36%	ANZ (2005, 2008)
Don't have time	8%	14%	ANZ (2005, 2008)
Other priorities more important	7%	13%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.9 (cont.): What Australians know and do: Financial documents (financial statements, PDSs, prospectuses)*

What people do (cont.)	Percent of respondents		Research item
Reasons for not reading superannuation fund statements (cont.):	*2005*	*2008*	
Just assume they're correct/OK	10%	4%	ANZ (2005, 2008)
Too difficult to understand	29%	23%	ANZ (2005, 2008)
Someone else reads them	8%	8%	ANZ (2005, 2008)
All other reasons	11%	12%	ANZ (2005, 2008)
Unsure/can't recall	NA	4%	ANZ (2005, 2008)
Prospectuses:			
Investors who said they received the prospectus	71.6%		ASIC (2008c)
PDSs:			
People who reviewed the PDS before making the decision to switch their superannuation	14%		IFSA (2007)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.10: What Australians know and do: Investing[*]

What people know	Percent of respondents		Research item
Self-rated knowledge about investment is 'nothing' or 'minimal' (0–3 out of 10)	42%		MWS (2006)
Recognise the importance of learning more about investing	70%		FLF (2007a)
Indicate financial investments are too complicated to understand properly	46%		Fear (2008)
Able to understand the importance of net returns from investments	89%		CBF (2004)
Able to choose the best investment given a certain objective	88%		CBF (2004)
Able to understand the liquidity of different investments	84%		CBF (2004)
Able to choose the most liquid investment	82%		CBF (2004)
Able to choose the best long-term investment	79%		CBF (2004)
Understand the power of compound interest	78%		CBF (2004)
Key investment concepts (risk and return/diversification):	*2005*	*2008*	
Believe that investments with high returns are likely to have higher than average risks	87%	86%	ANZ (2005, 2008)
Would consider it 'too good to be true' and not invest in an investment advertised as having a return well above market rates and no risk'	47%	52%	ANZ (2005, 2008)
Believe that short-term fluctuations in market value can be expected, even with good investments	64%	67%	ANZ (2005, 2008)
Consider diversification of funds across different types of investments to be 'very' or 'quite' important	79%	78%	ANZ (2005, 2008)
Would consider both risk and return when making an investment decision	34%		FLF (2007a)
Would consider diversity/spread of investments	5%		FLF (2007a)
Would consider background information such as the reputation of the company	6%		FLF (2007a)
Would consider their personal circumstances	6%		FLF (2007a)
Able to correctly select 'reasonable rate of return' to expect from a fixed-interest product over 10-year period	51%		ASIC (2008a)
Know the current interest rate	7%		ASIC (2008a)
Believe investing 100% of your money in government bonds is good diversification	36%		ASIC (2008a)

[*]Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.10 (cont.): What Australians know and do: Investing*

What people do	Percent of respondents		Research item
	2005	*2008*	
Hold high-interest savings accounts	NA	46%	ANZ (2005, 2008)
Hold other investments (e.g. debentures, bonds, notes or derivatives)	NA	4%	ANZ (2005, 2008)
Hold term deposit accounts	22%	20%	ANZ (2005, 2008)
Hold any superannuation funds	74%	76%	ANZ (2005, 2008)
Hold shares	40%	38%	ANZ (2005, 2008)
Hold managed investments (other than superannuation)	27%	20%	ANZ (2005, 2008)
Hold retirement income stream product	24%	20%	ANZ (2005, 2008)
Have an investment property	19%	19%	ANZ (2005, 2008)
Have an investment property	18%		FLF (2007a)
Have other investments	46%		FLF (2007a)
Own home or have a mortgage	62%		FLF (2007a)
Have shares and managed funds	46%		FLF (2007a)
Have a savings account	72%		FLF (2007a)
Have only one type of investment	49%		ASIC (2008a)
Investors' level of interest in hypothetical advertisements:			
Investors who showed interest in a hypothetical investment advertisement offering 'fixed returns of 9.75% p.a. All loans are secured by registered mortgages over real property…'	46%		ASIC (2008a)
Investors who were 'very interested' in an offer promising to 'pay off a 20-year home loan in less than five years. No outlay by you ever'	16%		ASIC (2008a)
Investors who were 'interested' in an investment opportunity offering '20% interest paid monthly. Plus ongoing shareholding…'	24%		ASIC (2008a)
Investors who were 'interested' in an offer of a 'capital guaranteed investment with targeted returns of 12% if you hold the product to maturity'	46%		ASIC (2008a)
Investors who were 'interested' in an investment opportunity to earn '13% p.a.' for 3 years by contacting 'John' on his phone number	14%		ASIC (2008a)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.11: What Australians know and do: Planning for retirement*

What people know	Percent of respondents		Research item
Believe retirement is too far away to think about	21%		FLF (2007a)
Believe that financial planning is only important for those who have a lot of money	16%		FLF (2007a)
Confident in their ability to plan for their long-term financial future	81%		FLF (2007a)
Have the ability to ensure enough money for retirement	63%		FLF (2007a)
Recognise the importance of learning more about planning for the financial future	77%		FLF (2007a)
Recognise the importance of learning more about having enough money for retirement	71%		FLF (2007a)
	2008	*2010*	
Either have no idea how much they need to fund a comfortable retirement or have not started planning for their retirement	51%	44%	Citibank (2008, 2010)
Know how much they need to fund a comfortable retirement and feel they are on track to reach their goal	13%	20%	Citibank (2008, 2010)
	2005	*2008*	
Understand the need to save for retirement	93%	NA	ANZ (2005, 2008)
Have not identified how much money they would need each year to live on when they retire	64%	73%	ANZ (2005, 2008)
Feel they need to provide for self-funding for their retirement	94%	91%	ANZ (2005, 2008)
Expect their superannuation would enable them to live more comfortably than now or about as comfortably as now	44%	50%	ANZ (2005, 2008)
Consumer expectations of required retirement income:			
Less than $15,000	NA	1%	ANZ (2005, 2008)
$15,000–$24,999	NA	4%	ANZ (2005, 2008)
$25,000–$49,999	NA	34%	ANZ (2005, 2008)
$50,000–$74,999	NA	32%	ANZ (2005, 2008)
$75,000–$99,999	NA	10%	ANZ (2005, 2008)
$100,000 or more	NA	15%	ANZ (2005, 2008)
Unsure	NA	4%	ANZ (2005, 2008)
Expected source of income at retirement:	*2008*	2009	
Government pension or allowance	22%	27%	ABS (2008b, 2009)
Do not know	12%	7%	ABS (2008b, 2009)
Do not believe that the age pension will be sufficient for retirement	86%		FLF (2007a)
Do not believe that employer-funded superannuation will meet retirement needs	73%		FLF (2007a)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.11 (cont.): What Australians know and do: Planning for retirement*

What people do	Percent of respondents		Research item
Have thought about their long-term financial plans, including for retirement	76%		FLF (2007a)
	2009	*2010*	
Have not given much thought to retirement and have not made any preparations for it	15%	19%	MWS (2009, 2010)
Have given some thought to retirement but made very little preparations for it	29%	34%	MWS (2009, 2010)
Have given some thought to retirement and made some preparations for it (but not enough)	41%	36%	MWS (2009, 2010)
	2008	*2010*	
Have a dedicated retirement savings account	12%	14%	Citibank (2008, 2010)
Don't have a formal retirement plan that has been prepared by a finance professional	83%	80%	Citibank (2008, 2010)
	2005	*2008*	
Have a retirement income stream product	24%	20%	ANZ (2005, 2008)
Types of retirement income stream products held:			
Lifetime pension/annuity	45%	24%	ANZ (2005, 2008)
Allocated pension	16%	37%	ANZ (2005, 2008)
Life expectancy pension/annuity	12%	15%	ANZ (2005, 2008)
Market-linked pension/annuity	8%	15%	ANZ (2005, 2008)
Fixed-term pension/annuity	10%	10%	ANZ (2005, 2008)
Other type	14%	8%	ANZ (2005, 2008)
Unsure	5%	7%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.12: What Australians know and do: Superannuation*

What people know	Percent of respondents		Research item
Believe superannuation is too complicated to understand properly	44%		Fear (2008)
Experience difficulty in understanding superannuation	39%		FPA (2007)
Self-rated knowledge about superannuation is 'minimal' (2–3 out of 10)	29%		MWS (2009)
Aware they can contribute a greater percentage of their salary to superannuation	82%		FINSIA (2006)
Understand the need for voluntary superannuation	82%		CBF (2004)
Understanding of regulatory requirements of superannuation:	*2005*	*2008*	
Know that their employer is required to make superannuation contributions on their behalf	97%	96%	ANZ (2005, 2008)
Understand that they can make additional superannuation contributions	92%	90%	ANZ (2005, 2008)
Unsure how superannuation is taxed compared to other investments	22%	27%	ANZ (2005, 2008)
Did not know about the potential problems with having multiple superannuation funds	15%	16%	ANZ (2005, 2008)
Understanding of superannuation fund statements:			
Find it difficult to understand annual statements from a superannuation fund	34%	31%	ANZ (2005, 2008)
Understanding of superannuation fund performance:			
Correctly answered that the best indication of performance of a superannuation fund was 'return minus fees'	77%	68%	ANZ (2005, 2008)
Did not know the types of things people commonly do that often result in the reduction of the final value of superannuation or managed investments	42%	42%	ANZ (2005, 2008)
	2009	*2010*	
Did not know what their superannuation balance was	30%	27%	MWS (2009, 2010)
Understanding of superannuation fund type:			
Did not know if their superannuation was in a 'defined benefit' fund or an 'accumulation' fund	47%	47%	MWS (2009, 2010)
Did not know their superannuation fund's investment strategy ('aggressive', 'balanced' or 'conservative')	24%	22%	MWS (2009, 2010)
Understanding of tax incentives of superannuation:			
Did not know about the tax effectiveness of superannuation	18%	21%	MWS (2009, 2010)
Rated the tax effectiveness of superannuation as 'poor'	11%	13%	MWS (2009, 2010)

* Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.12 (cont.): What Australians know and do: Superannuation*

What people do	Percent of respondents		Research item
Contribute a greater percentage of their salary to superannuation	33%		FINSIA (2006)
Number of superannuation funds held:	*2005*	*2008*	
Member of one or more superannuation fund	74%	76%	ANZ (2005, 2008)
Belong to just one superannuation rollover fund	59%	54%	ANZ (2005, 2008)
Belong to two funds	26%	28%	ANZ (2005, 2008)
Belong to three funds	8%	9%	ANZ (2005, 2008)
Belong to four or more funds	6%	6%	ANZ (2005, 2008)
Unsure	2%	3%	ANZ (2005, 2008)
Type of superannuation funds held:			
Corporate and employer fund	27%	19%	ANZ (2005, 2008)
Industry fund	21%	33%	ANZ (2005, 2008)
Public sector fund	15%	18%	ANZ (2005, 2008)
Self-managed superannuation fund	14%	14%	ANZ (2005, 2008)
Retail superannuation fund	7%	7%	ANZ (2005, 2008)
Retirement savings account	5%	5%	ANZ (2005, 2008)
Private fund (bank/insurance)	1%	1%	ANZ (2005, 2008)
Other	1%	2%	ANZ (2005, 2008)
Unsure	21%	20%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.13: What Australians know and do: Protecting money—insurance*

What people know	Percent of respondents		Research item
Have the ability and understanding to protect their money by choosing appropriate insurance	82%		FLF (2007a)
Understand life insurance is necessary	44%		CBF (2004)
	2005	*2008*	
Not aware that a claim can be refused if the policyholder did not meet duty of accurate disclosure	51%	54%	ANZ (2005, 2008)
Not aware of the cooling-off period when taking out new insurance policy	65%	68%	ANZ (2005, 2008)
Considerations when opening a new insurance policy (other than life insurance):			
Premium	54%	53%	ANZ (2005, 2008)
Level of cover needed	40%	47%	ANZ (2005, 2008)
Reputation of the insurance provider	17%	20%	ANZ (2005, 2008)
Nature of the policy (including benefits offered)	16%	14%	ANZ (2005, 2008)
Size of any excess	11%	15%	ANZ (2005, 2008)
What people do	**Percent of respondents**		**Research item**
	2008	*2010*	
Do not have any insurance	48%	47%	Citibank (2008, 2010)
Have life insurance	18%	16%	Citibank (2008, 2010)
Have enough insurance to ensure their loved ones won't suffer financially in the event of their own death, sickness or disability	34%	37%	Citibank (2008, 2010)
	2005	*2008*	
Have building and contents insurance	82%	88%	ANZ (2005, 2008)
Have comprehensive motor vehicle insurance	79%	87%	ANZ (2005, 2008)
Have private health insurance	60%	55%	ANZ (2005, 2008)
Have life insurance	35%	34%	ANZ (2005, 2008)
Have income protection insurance	12%	30%	ANZ (2005, 2008)
Have third-party motor vehicle insurance	NA	10%	ANZ (2005, 2008)
Undertook comparison shopping when looking for a new insurance policy	74%	75%	ANZ (2005, 2008)
Don't shop around when arranging a new policy	24%	24%	ANZ (2005, 2008)
Hold some type of insurance (e.g. home and contents insurance, car insurance, life insurance)	86%		FLF (2007a)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.14: What Australians know and do: Protecting money—scams and fraud*

What people know	Percent of respondents		Research item
Scams:			
Have the ability and understanding to be able to recognise a scam or an investment scheme that seems to good to be true	88%		FLF (2007a)
Acknowledge the importance of learning more about recognising a scam	69%		FLF (2007a)
Awareness of internet banking risks:			
What consumers know about how to prevent banking fraud:			
Logging out correctly at the end of each session	93%		CBA (2007)
Ignoring emails asking for personal information	92%		CBA (2007)
Regularly updating and protecting passwords	55%		CBA (2007)
Setting daily withdrawal limits to suit their needs	47%		CBA (2007)
Perceived there was a risk associated with internet banking:	*2005*	*2008*	
Yes	78%	78%	ANZ (2005, 2008)
No	20%	19%	ANZ (2005, 2008)
Awareness of types of internet banking risks:			
Key logging by hackers	59%	53%	ANZ (2005, 2008)
Unsecured sites	27%	23%	ANZ (2005, 2008)
Credit card fraud	19%	17%	ANZ (2005, 2008)
Lack of security/access to personal details/privacy issues	11%	11%	ANZ (2005, 2008)
Email scams	8%	9%	ANZ (2005, 2008)
Phishing	4%	8%	ANZ (2005, 2008)
Viruses	3%	2%	ANZ (2005, 2008)
Identity theft	NA	23%	ANZ (2005, 2008)
Can't say/unsure	4%	4%	ANZ (2005, 2008)
Other	3%	12%	ANZ (2005, 2008)
What consumers know about how to minimise internet banking risks:			
Aware of ways to minimise internet banking risks	66%	63%	ANZ (2005, 2008)
Use a firewall	32%	26%	ANZ (2005, 2008)
Keep anti-virus software up-to-date	27%	38%	ANZ (2005, 2008)
Change password regularly	23%	22%	ANZ (2005, 2008)
Ensure bank has a secure site/has good security measures in place	19%	14%	ANZ (2005, 2008)
Don't use links in emails which claim to go to financial institution websites	11%	12%	ANZ (2005, 2008)
Vigilant with passwords/codes/details/PINs	9%	12%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.14 (cont.): What Australians know and do: Protecting money—scams and fraud*

What people know (cont.)	Percent of respondents		Research item
What consumers know about how to minimise internet banking risks (cont.):	*2005*	*2008*	
Check for viruses	9%	7%	ANZ (2005, 2008)
Don't open suspect files	7%	8%	ANZ (2005, 2008)
Don't use public computers/public internet access	2%	6%	ANZ (2005, 2008)
Can't say/unsure	7%	5%	ANZ (2005, 2008)
Other	10%	9%	ANZ (2005, 2008)
What people do	**Percent of respondents**		**Research item**
Scams:			
Exposed to a scam	36% (5,809,100)		ABS (2008a)
Victim of a scam	2% (329,000)		ABS (2008a)
Victim of selected scams:			
Lotteries	0.5% (84,100)		ABS (2008a)
Pyramid schemes	0.4% (70,900)		ABS (2008a)
Phishing and related scams	0.4% (57,800)		ABS (2008a)
Financial advice	0.2% (28,500)		ABS (2008a)
Chain letters	0.2% (26,700)		ABS (2008a)
Advance fee fraud	0.1% (16,000)		ABS (2008a)
Other scams	0.4% (69,100)		ABS (2008a)
Fraud:			
Victim of personal fraud	5% (806,000)		ABS (2008a)
Victim of ID fraud:			
Victim of ID fraud	3.1% (499,500)		ABS (2008a)
Credit card fraud	2.4% (383,300)		ABS (2008a)
Identity theft	0.8% (124,000)		ABS (2008a)
Tips about avoiding scams:			
Deal with reputable, well-known companies/banks/people	18%		ASIC (2008a)
Do lots of research/homework	18%		ASIC (2008a)
Check out what you are investing in/who you are dealing with	17%		ASIC (2008a)
If it sounds too good to be true it probably is/avoid scams	14%		ASIC (2008b)
Invest in well-known companies/products	11%		ASIC (2008b)

* Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.15: What Australians know and do: Information, advice and further education*

What people know	Percent of respondents		Research item
Reasons for attending investment seminars:			
Opportunity to learn more about investing	40%		ASIC (2008a)
Opportunity to learn about new investment opportunities	24%		ASIC (2008a)
Most common reported reason for seeking information and advice:			
Tax advice or assistance in completing a tax return	28%		FLF (2007a)
Investment advice	27%		FLF (2007a)
General advice	13%		FLF (2007a)
Taking out mortgage/refinancing mortgage	10%		FLF (2007a)
Taking out other debt (e.g. car loan)	9%		FLF (2007a)
Wanted superannuation advice	8%		FLF (2007a)
Change in life (e.g. retiring, having children, getting married)	4%		FLF (2007a)
Preferred sources:			
Financial adviser	82%		FLF (2007a)
Accountant/tax agent	81%		FLF (2007a)
Family	63%		FLF (2007a)
Bank	60%		FLF (2007a)
Friends	55%		FLF (2007a)
Seminars/educational institutions	52%		FLF (2007a)
Government website	49%		FLF (2007a)
Other website	48%		FLF (2007a)
Business/money-related magazines	48%		FLF (2007a)
Newspapers	47%		FLF (2007a)
Community services	42%		FLF (2007a)
Work	37%		FLF (2007a)
TV/radio	31%		FLF (2007a)
Centrelink	29%		FLF (2007a)
Topics for further education/information:	*2005*	*2008*	
Investing	33%	39%	ANZ (2005, 2008)
Superannuation	31%	25%	ANZ (2005, 2008)
Budgeting	12%	14%	ANZ (2005, 2008)
Taxation	7%	13%	ANZ (2005, 2008)
Borrowing, loans and mortgages	9%	9%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference. For more information about financial advisers please see Appendix 2, 'Statistics on access to advice'.

Table A1.15 (cont.): What Australians know and do: Information, advice and further education*

What people know (cont.)	Percent of respondents		Research item
Topics for further education/information (cont.):	*2005*	*2008*	
Managing debt	NA	9%	ANZ (2005, 2008)
How to make complaints/resolve disputes	12%	7%	ANZ (2005, 2008)
Financial management and planning	10%	7%	ANZ (2005, 2008)
Business finance	5%	5%	ANZ (2005, 2008)
Retirement planning	3%	3%	ANZ (2005, 2008)
Insurance	3%	3%	ANZ (2005, 2008)
General banking information	5%	2%	ANZ (2005, 2008)
Consumer rights and responsibilities	2%	2%	ANZ (2005, 2008)
Interest rates	NA	2%	ANZ (2005, 2008)
Other responses	2%	5%	ANZ (2005, 2008)
Can't say	16%	16%	ANZ (2005, 2008)

What people do	Percent of respondents		Research item
Publications and seminars used in the last 5 years (self education):	*2005*	*2008*	
Financial sections of newspapers/magazines	37%	42%	ANZ (2005, 2008)
Books/other financial publications	27%	26%	ANZ (2005, 2008)
Finance websites	22%	27%	ANZ (2005, 2008)
Finance industry publications	30%	27%	ANZ (2005, 2008)
Government finance publications (e.g. ASIC, consumer affairs)	24%	23%	ANZ (2005, 2008)
Community organisation publications	11%	12%	ANZ (2005, 2008)
Seminars	17%	15%	ANZ (2005, 2008)
Financial adviser/specialists used:			
Financial management/planning specialist	62%	64%	ANZ (2005, 2008)
Accountant	44%	45%	ANZ (2005, 2008)
Tax specialist	23%	26%	ANZ (2005, 2008)
Financial planner/adviser	34%	34%	ANZ (2005, 2008)
Mortgage broker	13%	18%	ANZ (2005, 2008)
Insurance broker	12%	12%	ANZ (2005, 2008)
Stockbroker	10%	10%	ANZ (2005, 2008)
Bank manager/employee	35%	39%	ANZ (2005, 2008)
Family/friends	45%	47%	ANZ (2005, 2008)
Financial counsellor	13%	13%	ANZ (2005, 2008)
Centrelink Financial Information Service officers	NA	11%	ANZ (2005, 2008)

*Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference. For more information about financial advisers please see Appendix 2, 'Statistics on access to advice'.

Table A1.15 (cont.): What Australians know and do: Information, advice and further education*

What people do (cont.)	Percent of respondents		Research item
Where people source information on money matters:			
Friends and family are the main point of reference	29%		Citibank (2008)
Accountants or financial planners	18%		Citibank (2008)
Internet	13%		Citibank (2008)
Investors' use of seminars, courses and software			
Investors who have ever paid for investing seminars	8%		ASIC (2008a)
Investors who have ever paid for training courses	6%		ASIC (2008a)
Investors who have ever paid for software	3%		ASIC (2008a)
Ever used for financial information or advice:			
Accountant/tax agent	68%		FLF (2007a)
Financial adviser	54%		FLF (2007a)
Bank	57%		FLF (2007a)
	2006	*2009*	
Total percentage of Australians aged 14+ who have ever met a financial adviser	33%	37%	Roy Morgan Research (2006 [12 months to March 2006], 2010b [12 months to December 2009])
Information sources selected by 'actual'[131] investors:			
Financial institutions (e.g. bank, building society or credit union)	18%		ASIC (2008a)
Friend or family member	17%		ASIC (2008a)
Professional financial adviser	15%		ASIC (2008a)
Daily newspapers	14%		ASIC (2008a)
Internet	11%		ASIC (2008a)
Information sources selected by 'hypothetical'[132] investors:			
Professional financial adviser	28%		ASIC (2008a)
Friend or family member	21%		ASIC (2008a)
Daily newspapers	19%		ASIC (2008a)
Internet	14%		ASIC (2008a)
Financial magazines	9%		ASIC (2008a)

[*] Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference. For more information about financial advisers please see Appendix 2, 'Statistics on access to advice'.

[131] 'Actual investors' were people who were surveyed about the last investment decision they had actually made (as opposed to 'hypothetical' investors).

[132] 'Hypothetical' investors were people who were surveyed about a hypothetical investment scenario in which they had inherited $100,000 (as opposed to 'actual investors').

Table A1.15 (cont.): What Australians know and do: Information, advice and further education*

What people do (cont.)	Percent of respondents		Research item
Currently use a financial adviser:			
Total percentage of Australians aged 16 and over who currently use the services of a financial planner	22%		FPA (2007)
Use of advisers by 'mass affluent'[133] investors:			
Mass affluent investors who said they use a professional financial adviser	29%		brandmanagement (2008)
Mass affluent investors who said they have ever used a professional financial adviser	34%		brandmanagement (2008)
Use of ratings agencies/organisations:	*2005*	*2008*	
Financial product rating agency	NA	6%	ANZ (2005, 2008)
Organisations like the Australian Consumers Association or the magazine *Choice*	NA	19%	ANZ (2005, 2008)
Either of these	NA	23%	ANZ (2005, 2008)

* Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference. For more information about financial advisers please see Appendix 2, 'Statistics on access to advice'.

133 Mass affluent investors are defined as those with greater than $500,000 investable assets, excluding their home.

Table A1.16: What Australians know and do: Consumer rights and responsibilities*

What people know	Percent of respondents		Research item
Consumer rights and responsibilities:			
Are highly confident in their ability to understand their rights and responsibilities	85%		FLF (2007a)
Recognise the importance of learning more about understanding rights and responsibilities	74%		FLF (2007a)
	2005	*2008*	
People who agreed they were very clear about their rights if they had a problem with a financial institution	68%	67%	ANZ (2005, 2008)
Awareness of ASIC's role and responsibilities:			
People who incorrectly identified that the 'Australian Securities and Investments Commission checks the accuracy of all prospectuses lodged with it'	57%	52%	ANZ (2005, 2008)
Who Australians would contact if they experienced difficulties with a financial product/ service:			
Industry ombudsman/Ombudsman	36%		ANZ (2008)
Government organisation (e.g. consumer affairs or ASIC)	26%		ANZ (2008)
Professional adviser (e.g. solicitor)	14%		ANZ (2008)
Financial adviser or accountant	13%		ANZ (2008)
Family or friends	13%		ANZ (2008)
Industry/professional association	5%		ANZ (2008)
Bank manager	5%		ANZ (2008)
Department of fair trading	1%		ANZ (2008)
Provider	1%		ANZ (2008)
Local MP	1%		ANZ (2008)
Unsure	17%		ANZ (2008)
What people do	**Percent of respondents**		**Research item**
Consumer complaints:			
Dissatisfied with a financial organisation in the last 2 years	52%		ASIC (2008d)
Made a complaint to a financial organisation in the last 2 years	29%		ASIC (2008d)
Common reasons for not making a complaint:			
Won't change anything	36%		ASIC (2008d)
Waste of time / don't have time / time involved / not worth the time/effort/bother / too much hassle/trouble	16%		ASIC (2008d)
Better/easier to go elsewhere / went to another company/bank/organisation / change company / find better product / took our business elsewhere / didn't use their service	11%		ASIC (2008d)
Can't be bothered / lazy / apathetic	11%		ASIC (2008d)
Awareness of ASIC's role and responsibilities:			
Investors who were able to name ASIC as the 'corporate watchdog'	28%		ASIC (2008a)

* Some of the information contained in these tables is sourced directly and some has been paraphrased for ease of reference.

Table A1.17: Taxonomy of cognitive biases likely to be relevant for financial decision making[*] (de Meza et al for the FSA, 2008)

Bias		Description and potential relevance
Memory	Curse of knowledge	Knowledge of an event's outcome can compromise the ability to reason about another person's beliefs about that event.
	Hindsight [3]	Outcomes that are considered improbable ex ante are often overestimated ex post.
	Mental accounting [2]	Mental accounting is the set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities. People are assumed to group their assets into a number of non-fungible mental accounts.
	Procrastination [3]	Postponing things one knows one should do today. A psychological reason might be that present or immediate costs/benefits are unduly salient or vivid in comparison to future costs/benefits.
	Recall, imaginability [3, 4]	An event or class may appear more numerous or frequent if its instances are more easily recalled than other equally probable events.
Naive statistics	Base-rate neglect, stereotyping [1, 3, 4]	The base-rate fallacy is people's tendency to ignore base rates in favour of, e.g. individuating information (when such is available), rather than integrate the two.
	Conjunction [1, 4]	Probability is often overestimated in compound conjunctive problems.
	Correlation [1, 3, 4]	The probability of two events occurring together can be overestimated if they can be remembered to have co-occurred in the past.
	Disjunction [1, 4]	Probability is often underestimated in compound disjunctive problems.
	Small number [1, 4]	Believers in the law of small numbers tend to over-infer the outcome of a random process after a small series of observations. People tend to believe that small samples replicate the probability distribution properties of the population.
Adjustment	Anchoring [4]	Assimilation of a numeric judgement to a previously considered standard.
	Default [3, 5]	People tend to stay with the default.
	Disposition [2]	The original purchase price of an item is treated as the reference point (closely related to mental accounting and loss aversion).
	Endowment [2, 3, 5]	The value of an item increases when it becomes a part of a person's endowment. The person demands more to give up an object than they would be willing to pay to acquire it.
	Loss aversion [2, 3, 5]	Tendency of individuals to weigh losses about twice as much as gains.

[*] See notes at end of Table A1.17.

Table A1.17 (cont.): Taxonomy of cognitive biases likely to be relevant for financial decision making* (de Meza et al for the FSA, 2008)

Bias		Description and potential relevance
Adjustment (cont.)	Projection [3]	People exaggerate the degree to which their future tastes will resemble their current tastes.
	Regression to mean	Consider two variables X and Y which have the same distribution. If one selects individuals whose average X score is higher than the mean of X by k units, then the average of their Y scores will usually deviate from the mean of Y by less than k units. Often people do not take this into account in their judgements. For example, investments that have been extraordinarily profitable yesterday are likely to regress back to their mean today.
	Regret aversion [3, 5]	Tendency to avoid taking an action due to a fear that in hindsight it will turn out to have been suboptimal.
	Omission [3]	Tendency to judge harmful actions as worse or less moral than equally harmful omissions (inactions), especially in the short run.
	Status quo [3, 5]	People like things to stay the same. An alternative may be chosen only because it was used before (habit).
Confidence	Belief [3, 4, 5]	Difficulty evaluating conclusions that conflict with what one thinks one knows about the world.
	Completeness [3, 4, 5]	Perception of an apparently complete or logical data presentation of information base can stop the search process too early.
	Confirmation, Myside [3, 4, 5]	Tendency to evaluate evidence, generate evidence, and test hypotheses in a manner biased toward one's own previously held opinions.
	Unrealistic optimism, desire, wishful thinking [3]	The probability of desired outcomes is assessed to be greater than actually warrants.
	Illusion of control [4]	The expectancy of a personal success probability of an outcome often increases (normally above the objective one) when one has some control over the outcome.
	Planning fallacy [3]	Refers to the tendency to underestimate task-completion times.
	Overconfidence [3]	The ability to solve difficult or novel problems and the accuracy of our own judgements is often overestimated.
	Success	Often failure is associated with poor luck and success with the abilities of the decision maker.

* See notes at end of Table A1.17.

Table A1.17 (cont.): Taxonomy of cognitive biases likely to be relevant for financial decision making* (de Meza et al for the FSA, 2008)

Bias		Description and potential relevance
Presentation	Dilution [4, 5]	The weakening of a belief by providing irrelevant neutral information.
	Framing [3, 4, 5]	Alternative wordings of the same objective information can significantly alter the decision, though differences between frames (e.g. as losses or gains) should have no effect on the rational decision.
	Linear	Decision makers are often unable to extrapolate a non-linear growth process.
	Information order, recency [4]	The first item presented or the last may be over-weighted in judgement. Decision makers derive different conclusions depending on the order in which they receive information.
	Pruning bias, partition dependence	Bias in probability assessment due to which the particular choice of events into which the state space is partitioned does affect the assessed probability distribution over states.
	Scale [4]	The perceived variability of data can be affected by the scale of the data. This might cause that small extra purchases are perceived as minor expenditures when they follow larger purchases.
Situation	Attribution	Tendency to draw inferences about a person’s unique and enduring dispositions from behaviours that can be entirely explained by the situations in which they occur.
	Complexity [4, 5]	Time pressure, information overload, cognitive busyness, increased (internal) inspection and other factors that increase the perceived complexity of the task can lead to worse decisions.
	Escalation, sunk cost [1]	Commitment to follow or escalate a previous unsatisfactory course of action. This leads to throw “good money after bad”.

* Extract only. For full table, see de Meza et al, 2008, pp. 94–103.

Numbers in brackets [ ] indicate (most) likely relevance for different characteristics of financial capability: [1] being able to manage money; [2] keeping track of finances; [3] planning ahead; [4] making informed decision about financial product; [5] staying up-to-date about financial matters.

Source: Selected extract from de Meza et al for the FSA, 2008, pp. 94–103.

Table A1.18: What makes superannuation decisions difficult? (Clark-Murphy et al, 2002)

Classification		Description	Representative comment
Uncertainty/risk	Uncertainty	General uncertainty about the future. Having to predict future conditions.	'Trying to foresee the future'
	Employment	Uncertainty of career path, salary, length of employment at university, years to retirement.	'Unpredictability of future economic conditions'
	Political/legal/taxation	Possibility of future changes in superannuation rules, taxation law etc.	'Not knowing what the Government will do with Super in the future'
	Financial outcomes	Concern about overall risk, return on investment, final payout. Wish for security, wish to maximise return. Evaluation of risk and return.	'Assessing the risk versus security versus growth'
	Personal financial situation	Standard of living in retirement, superannuation as sole source of income.	'I expect to be self funded in retirement and want a high quality of life'
	Life expectancy	Uncertainty of longevity and health. How much money will be needed?	'Poor understanding generally of what I will need (e.g. will I live to 65 or 95?)'
Information/knowledge	Complexity	Complexity of superannuation and of the information available. Complexity of financial issues in general. Difficult to understand the language, jargon.	'Too much technical information'
	Acquiring information	Difficult to get information. Not enough information and poor quality of information.	'No real advice available. My individual circumstances meant that the info provided had to be modified to suit'
	Lack of knowledge/ understanding	Lack of knowledge and understanding of financial issues and superannuation.	'Little knowledge and essence in Superannuation and investments'
	Ambiguity	Unclear information. Not understanding the implications of the choices. Confusion, doubt, conflicting advice.	'Understanding what was being offered'
Nature of the decision/time	Importance of the decision	How important the decision is and why.	'Knowing that the decision could have a major effect on my ultimate retirement benefits'
	Once-only decision	Concern that such a choice will not be given again.	'Only one time choice between the two systems'
	Deciding	Difficulty in choosing amongst the alternatives. Difficulty in choosing between risk and return.	'Whether to take a risk or not'

Table A1.18 (cont.): What makes superannuation decisions difficult? (Clark-Murphy et al, 2002)

Classification		Description	Representative comment
Nature of the decision /time (cont.)	Timing	Closeness to retirement.	'Relatively short time to retirement and need to be cautious'
	Time constraint	Not enough time to do the required research. Too much time required to do the research.	'No time to consider all options (i.e. no time available to become better informed)'
Emotion	Frustration and lack of control	Not being in control of own financial situation or lack of control due to lack of knowledge/understanding. Anger. Unable to cope with the decisions or the issues.	'I felt frustrated with myself and lack of skill in determining the best course to take' 'I have no faith whatsoever in money that I have no control of'
	Anxiety	Fear of losing money. Fear of being poor. Fear of regret.	'Fear of losing out'
	Distrust	Lack of confidence in the system and/or in financial advisers.	'Lack of trust in the system'
	Avoidance	Dislike of financial issues. Avoidance of handling the issues. Wish for someone else to take on the responsibility.	'Superannuation is a pain'

Source: Selected extract from Clark-Murphy et al, 2002, pp. 13–14.

Figure A1.1: Role of confidence in financial outcomes (Financial Literacy Foundation, 2007a)

POSSIBLE PATHS TO POOR OR SUBOPTIMAL FINANCIAL OUTCOMES

	Lack of confidence	**Confidence**	**Overconfidence**
Attitudes, beliefs and behaviours ↓	**Confusion** – I don't know what it means, I don't get it	**Perceived clarity** – I understand this	**Perceived clarity** – I understand this
	Intimidation – It's too hard, I can't do it even if I know I should	**Dismissiveness** – But it doesn't matter, it's not important	**Overestimation of ability** – I know what I'm doing
	Apathy – Money's boring anyway, I couldn't be bothered	**Apathy** – Money's boring anyway, I couldn't be bothered	**Enthusiasm** – I can do this, I'll get a good result
	Procrastination – It's easier if I just ignore it, I'll put it off, I'd rather be doing something else, tomorrow can take care of itself	**Procrastination** – It's easier if I just ignore it, I'll put it off, I'd rather be doing something else, tomorrow can take care of itself	**Action** – I'll give it a go, I'll just do it
	Pessimism – It doesn't matter what I do because it won't make a difference	**Optimism** – It'll be right	**Optimism** – It'll be right
	↓ **Stress and discomfort**	↓ **Lack of relevance or importance** **Lack of motivation**	↓ **Lack of effective effort**
Possible consequences		↘ ↓ ↙ **Impeded learning**	
		↓ **Reduced ability and understanding**	
Possible outcomes		↓ **No decision or no well informed decision**	

Source: FLF, 2007a, p. 40.

Table A1.19: Financial education and program delivery in the United States (Lyons et al, 2006)

Details of program	Percent*
Financial topics covered in program (n=334)	
Budgeting and cash-flow management	93.4%
Credit/debt management	91.6%
Savings and investment	88.6%
Consumer protection	63.5%
Home ownership	60.2%
Retirement and estate planning	53.6%
Risk management/insurance	46.4%
Taxation	37.1%
Primary target audiences (n=335)	
General public	49.2%
Low-to-moderate income	60.6%
Moderate-to-upper income	18.8%
Young adults	46.3%
Youth and children	29.5%
Elderly	20.9%
Baby boomers	19.1%
Military	19.4%
Other	13.1%
Other audiences (n=332)	
Audiences with eighth-grade reading level	55.4%
Non-English speaking audiences	36.7%
Methods of delivery (n=337)	
Workshops/seminars	77.0%
Multi-session courses	69.7%
Printed materials	84.0%
One-on-one financial counselling	66.4%
Internet delivery	35.2%
Electronic materials such as CDs	25.1%
Distance education	15.9%

* Based on total sample of 342 respondents.

Source: Selected extract from Lyons et al, 2006, p. 224.

Appendix 2: Statistics on access to advice

This Appendix covers findings about:

- What percentage of *Australians* use a financial planner?
- What percentage of *investors* use a financial planner?
- Who does and doesn't use a financial planner?
- Why don't people use financial planners?

The findings are presented in order of recency.

Some of these statistics were also detailed in the 2010 report, *Access to financial advice in Australia* (ASIC, 2010a).

What percentage of *Australians* use a financial planner?

Key points

It is difficult to pinpoint the percentage of Australians who use financial planners because:

- some survey respondents have a loose understanding of what a financial planner/adviser is (e.g. some view knowledgeable friends/colleagues as financial advisers)
- the result varies depending on the survey at hand, including the way the question is asked, when the survey was conducted and who is included in the survey (e.g. the proportion of Australians who have *ever used* a financial adviser is higher than those who *currently use* or have *recently used* one).

However, a significant number of Australians appear to have never used a financial planner, based on the information at hand (as many as 63% of Australians aged 14 and over).

Overall, friends and family are the most common source of financial advice, and a considerable number of Australians do not seek any advice.

According to a survey by Investment Trends published in 2010:

- 21% of people had used a financial adviser in the previous 12 months
- among those respondents planning to seek financial advice on a given matter, the most preferred source was a financial planner (38% of respondents).[134]

According to Roy Morgan Single Source data (12 months to December 2009):

- The estimated percentage of Australians aged 14 and over who had *ever* met an adviser (either from a bank, building society, credit union or another institution) was 37%, including:
  - 34% who had met an adviser from a bank, building society or credit union, and
  - 16% who had met an adviser from another financial institution.
- The estimated percentage of Australians aged 14 and over who had met an adviser *in the last four weeks* (either from a bank, building society, credit union or another institution) was only 5%, including:
  - 5% who had met an adviser from a bank, building society or credit union, and
  - 1% who had met an adviser from another financial institution.[135]

[134] Base sample: 1085 Australians sourced via an online survey. Investment Trends (2010).
[135] Base sample: 51,874 Australians aged 14 and over. Roy Morgan Research (2010b).

According to a survey commissioned by The Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) in 2009, 26% of people had used a financial planner for 'information, advice or help with financial management issues'.[136]

According to research commissioned by the Industry Super Network (ISN) in 2009:

- 28% of people had consulted a financial planner/adviser within the last 12 months
- 39% of people had consulted a financial planner/adviser within the last 3 years
- 60% of people had consulted a financial planner/adviser at some point.[137]

According to brandmanagement research commissioned by the FPA in 2008, an estimated 5 million Australians were at that time engaged with and using the services of advisers, which equated to:

- 31.8% of the adult population
- 23.5% of the total population.[138]

According to the 2008 ANZ financial literacy survey, 34% of Australians aged 18 and over had used a financial planner/adviser (the same result as 2005: see below).[139]

According to the results of the Citibank Citi Fin-Q survey released in 2008, 18% of Australians aged 18 and over relied on finance professionals such as accountants, financial planners or bank officials when looking for information on money matters.[140]

According to an omnibus survey commissioned by the FPA in 2007:

- 22% of Australians aged 16 and over were at that time using the services of a financial planner
- half (49%) of those who had ever used a financial planner had not used one in the last 12 months.[141]

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[136] Base sample: 1400 Australians (data weighted to represent the Australian population). FaHCSIA (2009a, 2009c).
[137] Base sample: 1201 Australians aged 18 and over. Question: 'When was the last time you personally consulted a financial planner or financial adviser?' ISN (2009).
[138] Estimates only. See source report for parameters. FPA (2008).
[139] Base sample: 3500 Australians aged 18 and over. Question: 'And have you consulted any of the following people regarding your finances?' ANZ (2008).
[140] Base sample: 400 Australians aged 18 and over. Citibank (2008).
[141] Base sample: 1100 Australians aged 16 and over. FPA (2007).

According to the *Understanding Money* research released by the Financial Literacy Foundation in 2007, 54% of Australians aged 18 and over had used a financial adviser for information or advice.[142]

According to the results of an online survey released by MWS in 2006, 28% of working Australians aged between 18 and 64 had consulted a financial adviser/planner in the last 12 months.[143]

According to the 2005 ANZ survey, 34% of Australians aged 18 and over had used a financial planner/adviser. This was the fourth most common source of advice. The top three sources were family or friends (45%), accountants (44%) and a bank manager or bank employee (35%). The responses indicated that consumers tend to utilise multiple sources of advice for their finances; however, 17% reported that they consulted no-one about their finances.[144]

[142] Base sample: 6947 Australians aged 18 to 75. FLF (2007a).
[143] Base sample: 802 working Australians aged between 18 and 64. MWS (2006).
[144] Base sample: 3500 Australians aged 18+. ANZ (2005).

What percentage of *investors* use a financial planner?

Key points

It is difficult to pinpoint the percentage of investors who use financial planners (for the same reasons as for Australians in general) and also because there is no consistent definition for the category 'investor'.

Notwithstanding the difficulties measuring the percentage of investors who use financial planners, it appears that a considerable proportion of investors, even relatively 'active' or 'affluent' investors, do not use a financial planner:

- At best, IFSA research found 62% of 'active' investors would use a planner if they were looking for information about managed investments, including superannuation.
- At worst, ASIC research found that only 15% of 'general' investors surveyed used a financial planner as a main source of information when they made their last investment decision.

Again, friends and family were a common source of financial advice and a considerable number of investors do not seek any advice.

According to an omnibus survey commissioned by IFSA in 2008:

- 21% of working Australians aged 18 to 64 had used the services of a financial planner for their super
- 35% of Australians aged 50 to 64 had seen a financial planner for their super.[145]

According to a 2008 IFSA investor sentiment survey, qualified financial advisers/planners were the preferred source of advice and information 'if you were looking for information on managed investments, including superannuation' for 62% of 'active' investors (compared to 55% in 2006).[146]

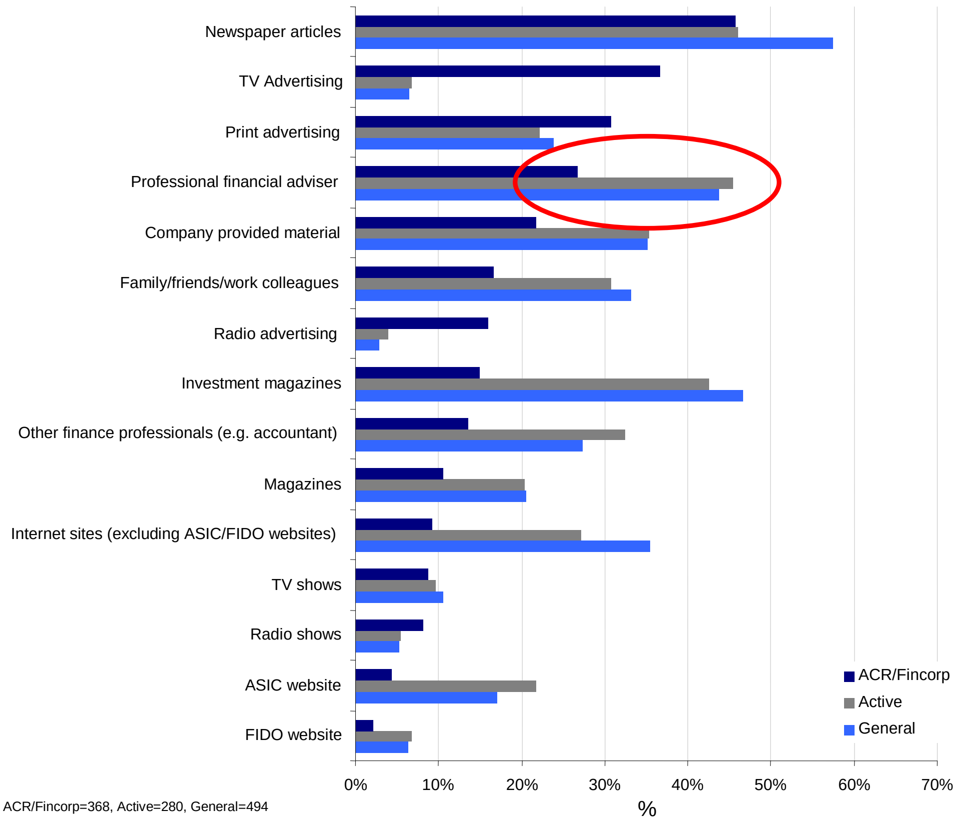
In 2008, brandmanagement surveyed their 'mass affluent' investor population (i.e. a population skewed toward higher wealth).[147] They found that:

- 28.7% mass affluent investors said they use a professional financial adviser[148]
- 33.6% mass affluent investors said they have ever used a professional financial adviser.[149]

[145] Base sample: 683 working Australians aged 18 to 64 living in capital cities. IFSA (2008a).
[146] Base sample: 789 active investors. 'active' investors included: a) those with investments $10,000 plus (not including super) for managed funds, property, direct shares, cash management accounts, fixed-term deposits, savings accounts; and b) those with investments less than $10,000 but with super $25,000 plus making additional contributions. IFSA (2008b).
[147] Mass affluent investors are defined as those with greater than $500,000 investable assets, excluding their home. brandmanagement (2008).
[148] Question sample: 4271 mass affluent investors.
[149] Question sample: 3058 mass affluent investors.

In 2008, ASIC commissioned brandmanagement to survey unlisted, unrated debenture (UUD) investors. Survey respondents were asked what information sources they typically use when considering and researching an investment. ACR[150]/Fincorp investors were much less likely to have used a professional financial adviser than active UUD or general investors: see Figure A2.1 below.[151]

Figure A2.1: Information sources used when considering investments (ASIC, 2008c)

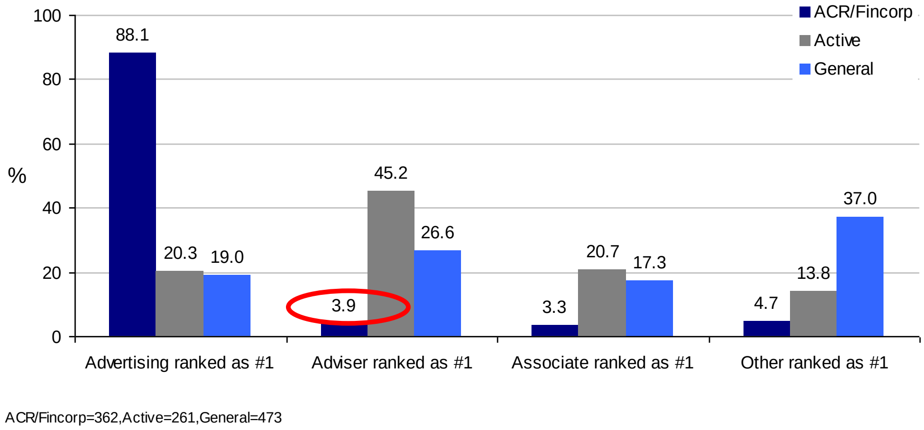


Source: ASIC, 2008c, p. 22.

Very few ACR/Fincorp investors cited advisers as influential on their specific decision to invest in ACR and/or Fincorp: see Figure A2.2.

[150] Australian Capital Reserve Ltd (Administrators Appointed).
[151] Base sample: 1142 investors. 'General' investors did not include those with under $50,000 to invest and the results for general investors were therefore skewed to investors with higher than average wealth. ASIC (2008c).

Figure A2.2: Most influential factor (#1) in investment decision (ASIC, 2008c)[152]



Source: ASIC, 2008c, p. 21.

In 2008, ASIC released the results of research conducted by Roy Morgan Research during 2006–07. In the quantitative stage of this research, Roy Morgan Research conducted a national survey that compared two groups of investors, one group explaining how they would invest a hypothetical $100,000 inheritance ('hypothetical') and one group explaining how they had actually recently invested ('actual').[153] Respondents were allocated into these two groups based on when their last investment decision was made (i.e. actual investors had made their last investment decision more recently than hypothetical investors).[154]

The survey found that hypothetical investors were more likely than actual investors to nominate professional financial advisers as an information source used when making their investment decision:

- 28% of hypothetical investors nominated a professional financial adviser as a main source of investment information
- 15% of actual investors nominated a professional financial adviser as a main source of investment information.

Demographic analysis of the two investor groups found that hypothetical investors were more likely to be aged 65 and over, in retirement or unemployed, while actual investors were more likely to be in paid employment or in the higher socio-economic quintiles.

[152] 'Other' included a wide range of influences on investment decisions (e.g. bank manager, own research, internet and direct mail).
[153] Base sample: 1217 investors. Hypothetical investors were told to imagine they had received $100,000 from an inheritance and were asked to describe how they would invest this money. They were not permitted to pay off debts or give the money to charity, family and friends. ASIC (2008b).
[154] Hypothetical investors were those who had not made an investment in the past year (or more than five years in the case of property).

Overall, the most common sources of advice for these investors were a financial institution/bank/building society/credit union (18%) and family and friends (17%). Echoing the trends for Australians in general, 16% of investors in this survey did not rely on any advice sources.

According to a survey of self-managed superannuation fund (SMSF) trustees released by IFSA in 2006, 28% of SMSF trustees used a financial planner to help with their funds.[155]

[155] Base sample: 2775 SMSF members. IFSA (2006).

Who does and doesn't use a financial planner?

Key points

While the research results vary, socio-economic factors and age appear to be the most consistent drivers of planner use:

- Those with higher socio-economic status and those aged 50 and over are more likely to have used planners.
- Those with lower socio-economic status and those aged under 25, are less likely to have used planners.

However, ASIC's research into UUD investors identified a significant 'at risk' group that prefers not to seek advice from planners or informal advice sources and tends to be older (average age 64).

ASIC's research into UUD investors identified two key types of investors, 'Type 1' and 'Type 2'. Type 1 investors were less likely to seek advice about their investment decision (from either formal or informal networks). Type 1 investors tended to be older than Type 2 investors: see Table A2.1 below.

Table A2.1: Key characteristics of investor types (ASIC, 2008c)

	Typical Type 1 investor (53.7% of total investors)	Typical Type 2 investor (46.3% of total investors)
Key investment characteristics	• Attracted by perceived security, rate of interest/return and capital *protection* • Seeking income for retirement • Attracted to/influenced by product advertising, seeing frequency as a proxy for quality • Less likely to seek advice about investment decision (from either formal/informal networks) • Less likely to enjoy or spend time investing generally • More likely to be ACR/Fincorp investor (86.7%) than active UUD investor (43.7%) or general investor (34.8%)	• Attracted by perceived security, rate of interest/return and capital *growth* • Seeking long-term saving • Noticed but less influenced by product advertising • More likely to have and use informal and formal advice networks • More likely to enjoy and spend time investing generally • More likely to be general investor (65.2%) or active UUD investor (56.3%) than ACR/Fincorp investor (13.3%)
Key demographic characteristics	• Mean age of 64 • More likely to be female (39.6%)[156] • More likely to be divorced (11.6%) or widowed (10.4%) • Over-represented among those educated at high school level or below • More likely to be retired and receiving some form of government support	• Mean age of 41 • Less likely to be female (35.4%) • Less likely to be divorced (3.0%) or widowed (0.4%) • Over-represented among those with post-graduate qualifications • Less likely to be retired and receiving some form of government support

Source: ASIC, 2008c, pp. 5–6.

[156] ACR investors were particularly likely to be female (61.8% of ACR investors were female).

According to research published by Investment Trends in 2010, there were several differences between people who had used financial planners in the previous 12 months and those who had not. Specifically, when compared to those who had not used a planner or other financial adviser during the previous 12 months, those who had used a planner during the same period:

- rated their own financial expertise more favourably (average self-rating of 5.5 out of 10, compared to 4 out of 10 for non-users of advisers during the period)
- had more invested in super (average of $254,000, compared to $63,000)
- were older (average age of 51 years, compared to 40 years)
- had higher personal income (average of $74,000, compared to $52,000)
- had a larger total investment portfolio size[157] (average of $304,000, compared to $77,000)
- were more likely to own their own home outright (just over 50%, compared to just under 10%).[158]

According to Investment Trends' 2009 research, amongst pre-retirees, people with higher superannuation balances were more likely to nominate a financial planner as their preferred source of assistance with retirement planning (around 60% of those with super balances of $200,000 and over) than people with lower balances (under 50% for people with balances lower than $50,000).[159]

The Investment Trends (2009) study also found that use of financial planners tended to increase as people neared retirement. While just under a quarter of pre-retirees with three to five years to retirement indicated that a financial planner was their main financial adviser, this proportion increased to around a third of those one to three years from retirement. [160]

According to Roy Morgan (2010b) Single Source data, people with higher socio-economic status are more likely to have met with a financial adviser than those with lower socio-economic status: see Figure A2.3.

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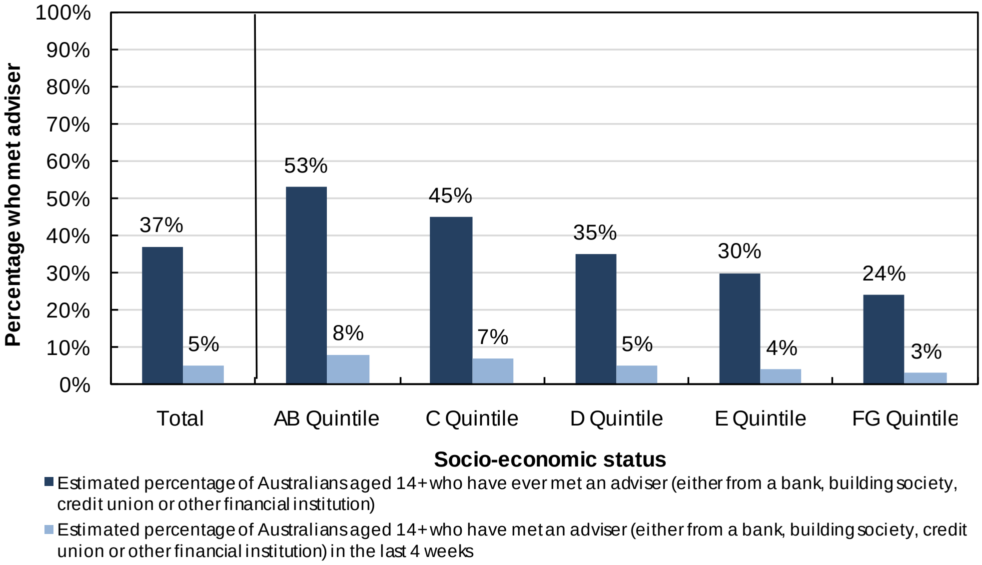
[157] Excluding super and own home, and less any debt.
[158] Base sample: 1085 Australians sourced via an online survey. Results from unpublished analysis conducted by Investment Trends on data included in Investment Trends (2010).
[159] Base sample: 1218 Australians aged 40 and over sourced via an online survey. Investment Trends (2009).
[160] Base sample: 1218 Australians aged 40 and over sourced via an online survey. Investment Trends (2009).

Figure A2.3: Adviser use by socio-economic status (Roy Morgan Research, 2010b, 12 months to December 2009)



Source: Roy Morgan Research, 2010b.

A survey commissioned by FaHCSIA in 2009 found that people who had at some point used the services of a financial planner for 'information, advice or help with financial management issues' were more likely to be:

- male (28% had used a planner) than female (24%)
- older (34% of those aged 50 to 64 and 30% of those aged 65 and over, compared to 7% of those aged 18 to 24).[161]

Research commissioned by ISN in early 2009 indicated that people who had at some point consulted a financial planner/adviser were more likely to be:

- male (64% had consulted a planner) than female (56%)
- older (66% of people aged 50 and over had ever consulted a planner, while 29% of those aged 18 to 24 had)
- employed in a white-collar role (63%) than a blue-collar role (57%)
- enjoying a higher household income (68% of those with household incomes of $80,000 and over had consulted a planner, while 53% of those earning under $40,000 had)
- degree-educated (65% had consulted a planner, compared to 54% of those having completed only primary/secondary school).[162]

[161] The preceding question in the survey was about the hypothetical use of various information sources (including financial planners) in the event of 'financial stress or hardship', which may have influenced respondents' conception of the term 'financial management issues', potentially resulting in the lower reported usage of financial planners. Base sample: 1400 Australians (data weighted to represent the Australian population). FaHCSIA (2009a, 2009c).
[162] Base sample: 1201 Australians aged 18 and over. Question: 'When was the last time you personally consulted a financial planner or financial adviser?' ISN (2009).

According to the results of the Citibank Citi Fin-Q survey released in 2008, women and over-40s were more likely to report using finance professionals such as accountants, financial planners or bank officials when looking for information on money matters than men and those aged under 40:

- 21% women compared to 15% of men
- 27% of over-40 year-olds compared with 30 to 39 year-olds (15%) and 18 to 29 year-olds (6%).[163]

According to the omnibus survey commissioned by the FPA in 2007, in which 22% of Australians aged 16 and over reported that they currently use the services of a financial planner, age affects the rates of use:

- 16 to 24 years (7%)
- 25 to 34 years (21%)
- 35 to 49 years (23%)
- 50 years and over (29%).[164]

According to the *Understanding Money* research released by the Financial Literacy Foundation in 2007, in which 54% of Australians aged 18 and over said they had used a financial adviser for information or advice, rates of use increased by income and age. However, the age trend tapered slightly at the oldest age bracket:

- 18 to 29 years (30%)
- 30 to 44 years (57%)
- 45 to 54 years (63%)
- 55 to 64 years (69%)
- 65 years and over (66%).[165]

According to the national investor survey Roy Morgan Research conducted for ASIC in 2007, investors who indicated that they had used a financial adviser as a main source of information when making their last financial decision were most likely to have been investing in managed funds or SMSFs: see Table A2.2.

[163] Citibank (2008).
[164] FPA (2007).
[165] FLF (2007a).

Table A2.2: Main information sources used by 'actual' investors (ASIC, 2008b)*

	Total	Managed invest.	SMSFs	Super (extra contrib.)	Invest. property	Shares	High-interest savings account	Term deposits	Other direct invest.
Actual investors, n=	*569*	*53*	*79*	*44*	*133*	*127*	*47*	*32*	*54*
Financial institution/ bank/building society/ credit union	18%	6%	6%	2%	4%	0%	53%	27%	13%
Friend/family member	17%	15%	18%	24%	20%	15%	16%	8%	21%
Professional financial adviser	**15%**	**63%**	**34%**	**14%**	**9%**	**15%**	**6%**	**8%**	**15%**
Daily newspapers	14%	6%	11%	4%	18%	33%	4%	9%	22%
Internet	11%	15%	10%	5%	12%	21%	10%	0%	12%
Financial magazines	8%	11%	14%	0%	6%	18%	2%	9%	5%
Accountant	5%	6%	11%	7%	11%	5%	0%	0%	1%
Real estate agent	5%	0%	0%	0%	23%	0%	2%	0%	0%
Stockbroker	3%	0%	6%	0%	0%	14%	0%	0%	9%
TV investment programs	3%	0%	0%	0%	1%	7%	3%	9%	9%
Workplace colleagues	3%	4%	0%	14%	0%	1%	3%	0%	2%
Managed fund, prospectus	3%	4%	6%	3%	1%	2%	1%	2%	14%
None, rely solely on own judgement	16%	0%	14%	14%	27%	17%	10%	15%	16%

* Figures in this table are vertical percentages.

Source: Selected extract from ASIC, 2008b, p. 48.

According to the Commonwealth Bank's 2006 Lifestyle Aspirations survey, 44% of baby boomers (45 to 64 year-olds) had sought advice from a financial planner.[166]

According to the 2005 ANZ survey, in which 34% of Australians aged 18 and over had used a financial planner/adviser:

- respondents who were more likely to consult a financial planner or adviser included:
  - those with higher savings excluding the home ($250,000 or more: 54%)
  - older respondents (60 to 69 years: 51%, 45 to 59 years: 40%)

[166] Base sample: 370 Australians aged 45–64. CBA (2006).

    - homeowners (owned outright) (41%)
    - those with household incomes of $60,000–$99,000 (40%)[167]
- respondents who were least likely to consult a financial planner or adviser included:
    - younger respondents (18 to 24 years: 13%)
    - those with no occupation (15%)
    - those in the lowest financial literacy levels (Quintile 1: 19% and Quintile 2: 29%)
    - renters (22%).

[167] ANZ (2005).

Why don't people use financial planners?

Key points

Overall, the most common reasons for not using a planner are:

- a perception that professional advice is not necessary (e.g. because the decision is simple or people prefer to do it themselves)
- lack of trust in planners, including not knowing how to find a 'good' one
- cost issues, including concerns about:
  - planner fees
  - not having enough money to invest.

Many retirees and pre-retirees describing their experiences and motivations in an ASIC (2010b) retirement study were worried that they might rely on an expert who would then give bad advice. People who perceived this risk managed it by avoiding formal financial advice.[168]

The issue of the cost of advice was raised in a 2009 survey of pre-retirees and retirees by Investment Trends. Almost half (47%) of those respondents who would seek advice on retirement plans did not expect to pay for this advice. More directly, 26% of those who would have preferred to consult a financial planner did not expect to pay for this advice.[169]

Qualitative research with low to middle income participants commissioned by FaHCSIA in 2009 found that, while many participants were generally aware of the services they could receive through accountants and financial planners, few had accessed those services. Participants tended to perceive the services as expensive and unaffordable.[170]

The quantitative phase of the above FaHCSIA study asked respondents (from a broader base of the Australian population) to indicate the circumstances in which they would seek information, advice or help from financial planners. The results revealed a significant degree of uncertainty about how planners could assist in financial management, with 29% of respondents reporting that they 'couldn't say' which circumstances might lead them to use the services of planners.[171]

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[168] Base sample: 12 focus group discussions and 28 one-on-one in-depth interviews conducted with low to middle income participants. ASIC (2010b).
[169] Base sample: 1218 Australians aged 40 and over sourced via an online survey. Investment Trends (2009).
[170] Base sample: 12 focus group discussions and 28 one-on-one in-depth interviews conducted with low to middle income participants. FaHCSIA (2009a, 2009b).
[171] Base sample: 1400 Australians (data weighted to represent the Australian population). FaHCSIA (2009a, 2009c).

A survey of Australians aged 18 and over commissioned by the ISN in 2009 found that people had significant lack of trust in planners, underpinned by negative perceptions about the influence of commissions. More specifically:

- few (15%) respondents believed that financial planners gave advice only in the best interests of their clients (i.e. that commissions had no impact)
- males, white-collar workers, university-educated and employed respondents were more likely to believe that commissions compromised advice
- approximately 8 out of 10 respondents believed that the law should require planners to act only in the best interests of their clients.[172]

In 2008, ING Australia released the results of research suggesting that 59% of surveyed advisers believe a client needs at least $100,000 of ‘investable’ assets to receive financial advice (down from 63% in 2007).[173]

In 2008, The Australia Institute released the results of six focus groups conducted with Australians in which people were asked if they had ever sought financial advice and how helpful the advice was. The results showed that:

- Many participants did not trust financial advisers (mainly due to a perception that advisers do not necessarily provide independent advice, given their commission structure or other incentives to recommend one or another product).
- Participants had some concerns about how to choose a good financial adviser. There was a great deal of uncertainty as to how ordinary people might go about finding independent and appropriately qualified advisers.[174]

In the omnibus survey commissioned by the FPA in 2007, those who said they do not use a financial planner said it was because:

- they do not need financial advice (56%)
- they don’t have enough money to make it worthwhile (39%)
- it will cost too much (21%)
- they don’t know where to find a good planner (18%)
- they believe financial planning is only relevant for retirement planning (11%).[175]

[172] Base sample: 1201 Australians aged 18 and over. Question: ‘When was the last time you personally consulted a financial planner or financial adviser?’ ISN (2009).
[173] ING (2008).
[174] Fear (2008).
[175] FPA (2007).

In the national investor survey Roy Morgan Research conducted for ASIC in 2007, investors who indicated that they did not/would not use a financial adviser as a main source of information had a wide range of reasons for not doing so. Table A2.3 below summarises these reasons by investment type but overall the top reasons were that they:

- trusted their own decisions (17%)
- did not trust advisers (12%)
- felt it was not suitable for their situation (11%)
- thought the fees were too high (10%).[176]

Table A2.3: Reasons for not using a financial adviser (ASIC, 2008b)*

	Total	Managed invest.	SMSFs	Super (extra contrib.)	Invest. property	Shares	High-interest savings account	Term deposits	Other direct invest.
Actual/hypothetical investors, n=	*875*	*75*	*67*	*43*	*171*	*364*	*45*	*45*	*65*
Trust my own decisions	17%	**19%**	**19%**	11%	**23%**	18%	8%	15%	17%
Do not trust advisers	12%	6%	9%	9%	12%	11%	10%	**18%**	**28%**
Not suitable for me/my situation	11%	7%	12%	12%	**14%**	7%	**21%**	6%	6%
Fees are too high	10%	4%	8%	9%	7%	8%	**15%**	**13%**	**22%**
Don't have enough money to use one	8%	6%	4%	**14%**	2%	5%	**15%**	**22%**	2%
Advisers are biased	7%	5%	3%	4%	**11%**	8%	8%	4%	**11%**
Don't need one/never had the need/haven't had any experience with them	6%	7%	1%	**24%**	5%	3%	**8%**	5%	3%
Had a bad experience with an adviser	5%	**9%**	**10%**	0%	**7%**	6%	2%	5%	3%
Rely on family and friends	5%	**13%**	**12%**	2%	**8%**	4%	1%	2%	4%
Only if I have a lot of money	4%	3%	0%	**7%**	1%	2%	**14%**	3%	5%
Make you buy products which are unsuitable	3%	2%	3%	3%	3%	3%	3%	**5%**	3%
They are not well-informed/ lack of knowledge or experience	3%	**7%**	**7%**	0%	2%	3%	2%	2%	1%
Total	*97%*	*92%*	*99%*	*100%*	*99%*	*93%*	*100%*	*99%*	*99%*

* Yellow shadow indicates percentages that are at least 2% higher than the total investor result (i.e. these investors appear to be more likely than total investors to nominate this reason). Figures in this table are vertical percentages.

Source: Selected extract from ASIC, 2008b, p. 56.

[176] ASIC (2008b).

In ASIC's shadow shopping survey on superannuation advice (2006), the anecdotal comments from survey participants and the compliance assessment suggested that some consumers might find it difficult to find 'good, compliant advice on simple issues … [which] particularly applies when consumers just need strategic advice about decisions within their current fund' (p. 47). The research found that 'some participants with small amounts in super reported difficulty getting advice, but so too did a few participants with large amounts in super in non-retail funds' (p. 47).[177]

In 28 cases where a volunteer approached a planner for advice as part of ASIC/ACA's survey on the quality of financial advice (2003), they did not succeed in getting a full financial plan. There were a number of reasons for this, including:

- some consumers had the impression that the planner was not interested in them as a client, possibly because the planner was targeting a different market segment (e.g. one volunteer of modest means was told by all three planners they approached that there was nothing the planner could offer—this was despite the consumer being very anxious to plan for her retirement in five years time and having some spare cash flow)
- some planners were too busy with other clients at the time they were approached for advice
- some planners gave verbal advice but would not do a formal plan.[178]

[177] ASIC (2006).
[178] ASIC & ACA (2003).

Key terms

Term	Meaning in this document
401k retirement plan	A retirement saving plan offered by some employers in the United States
ABS	Australian Bureau of Statistics
ACFT	Australasian Consumer Fraud Taskforce
ACR	Australian Capital Reserve Ltd (Administrators Appointed)
APSC	Australian Public Service Commission
ARIA	Accessibility/Remoteness Index of Australia
ASFA	Association of Superannuation Funds of Australia
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
ATSI	Aboriginal and Torres Strait Islander
CBF	Commonwealth Bank Foundation
CFEB	UK Consumer Financial Education Body
CPA	Certified practicing accountant
DBP	Defined benefit plan
DCP	Defined contribution plan
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
FIDO	ASIC’s former consumer website: www.fido.gov.au, replaced by ASIC’s new MoneySmart website
Fincorp	Fincorp Investments Limited (Administrators Appointed)
FINSIA	Financial Services Institute of Australasia
FLF	Financial Literacy Foundation
FLS	The ‘Financial Literacy Score’ calculated in the *ANZ survey of adult financial literacy in Australia*
FPA	Financial Planning Association
FSA	Financial Services Authority
HECS	Higher Education Contribution Scheme, a student loan scheme

Term	Meaning in this document
IFSA	Investment and Financial Services Association, now called the Financial Services Council (FSC)
IGFE	International Gateway for Financial Education
INFE	International Network on Financial Education
LFS	ABS Labour Force Survey
MAS	Monetary Authority of Singapore
MCEECDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs (previously MCEETYA)
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs (now superseded by MCEECDYA)
MPHS	ABS Multi-Purpose Household Survey
MWS	Mercer Wealth Solutions
OECD	Organisation for Economic Co-operation and Development
PDS	Product Disclosure Statement
SEIFA	ABS Socio-Economic Index for Areas
Single Source database	A database of approximately 55,000 Australians aged 14+ interviewed annually by Roy Morgan Research
SMSF	Self-managed superannuation fund
Understanding Money	The website developed by the former Financial Literacy Foundation: www.understandingmoney.gov.au, now replaced by ASIC’s new MoneySmart website.
UUD	Unlisted, unrated debenture
WIRE	Women’s Information and Referral Exchange Inc

References

Source code	Reference
ABS (2009)	Australian Bureau of Statistics, *Retirement and retirement intentions*, cat. no. 6238.0, ABS, Canberra
ABS (2008a)	Australian Bureau of Statistics, *Personal fraud*, cat. no. 4528.0, ABS, Canberra
ABS (2008b)	Australian Bureau of Statistics, *Retirement and retirement intentions*, cat. no. 6238.0, ABS, Canberra
ABS (2006)	Australian Bureau of Statistics, *Adult literacy and life skills survey results*, cat. no. 4228.0, ABS, Canberra
ACFT (2008)	Australasian Consumer Fraud Taskforce, *Australasian Consumer Fraud Taskforce Campaign—Testing of Messages,* (Colmar Brunton Social Research) Australasian Consumer Fraud Taskforce (unpublished)
Agarwal et al (2010)	Agarwal, S, Amromin, G, Itzhak, BD, Chomsisengphet, S & Evanoff, DD, *Financial counseling, financial literacy, and household decision making*, Working Paper Series (posted to SSRN June 23, 2010)
ANZ (2009)	Australia and New Zealand Banking Group Limited, *Understanding the success of Saver Plus,* (Chant Link & Associates) ANZ Banking Group, Melbourne
ANZ (2008)	Australia and New Zealand Banking Group Limited, *ANZ survey of adult financial literacy in Australia*, (The Social Research Centre) ANZ Banking Group, Melbourne
ANZ (2005)	Australia and New Zealand Banking Group Limited, *ANZ survey of adult financial literacy in Australia*, (AC Nielsen) ANZ Banking Group, Melbourne
ANZ (2004a)	Australia and New Zealand Banking Group Limited, *Community development finance in Australia: ANZ response to consultation*, ANZ Banking Group, Melbourne
ANZ (2004b)	Australia and New Zealand Banking Group Limited, *A report on financial inclusion in Australia,* (Chant Link & Associates) ANZ Banking Group, Melbourne
ANZ (2003)	Australia and New Zealand Banking Group Limited, *ANZ survey of adult financial literacy in Australia,* (Roy Morgan Research) ANZ Banking Group, Melbourne
APSC (2007a)	Australian Public Service Commission, *Tackling wicked problems: A public policy perspective*, Commonwealth of Australia, Canberra
APSC (2007b)	Australian Public Service Commission, *Changing behaviour: A public policy perspective*, Commonwealth of Australia, Canberra
Ashraf et al (2005)	Ahraf, N, Karlan, DS & Yin, W, 'Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines', Economic Growth Center Discussion Paper no. 917, Economic Growth Center, Yale University, New Haven
ASIC (2010a)	Australian Securities and Investments Commission, *Access to financial advice in Australia*, Report 224, Australian Securities and Investments Commission, Sydney

Source code	Reference
ASIC (2010b)	Australian Securities and Investments Commission, *How Australians plan for and make decisions about their retirement* (Susan Bell Research) Australian Securities and Investments Commission, Sydney (unpublished)
ASIC (2008a)	Australian Securities and Investments Commission, *Australian investors: At a glance*, Report 121, (Roy Morgan Research) Australian Securities and Investments Commission, Sydney
ASIC (2008b)	Australian Securities and Investments Commission, *ASIC investor research*, Report 122, (Roy Morgan Research) Australian Securities and Investments Commission, Sydney (unpublished)
ASIC (2008c)	Australian Securities and Investments Commission, *Understanding investors in the unlisted, unrated debenture (UUD) market*, Report 126, (brandmanagement) Australian Securities and Investments Commission, Sydney
ASIC (2008d)	Australian Securities and Investments Commission, *Complaint resolution in relation to financial institutions study*, (Newspoll Market Research) Australian Securities and Investments Commission, Sydney (unpublished)
ASIC (2008e)	Australian Securities and Investments Commission, *Retail investor fact-finding trip*, Australian Securities and Investments Commission, Sydney (unpublished)
ASIC (2007a)	Australian Securities and Investments Commission, *'All we have is this house': Consumer experiences with reverse mortgages,* Report 109, Australian Securities and Investments Commission, Sydney
ASIC (2007b)	Australian Securities and Investments Commission, *Making home insurance better,* Report 89, Australian Securities and Investments Commission, Sydney
ASIC (2006)	Australian Securities and Investments Commission, *Shadow shopping survey on superannuation advice*, Report 69, Australian Securities and Investments Commission, Sydney
ASIC (2005)	Australian Securities and Investments Commission, *Getting home insurance right, a report on home building underinsurance*, Report 54, Australian Securities and Investments Commission, Sydney
ASIC (2004)	Australian Securities and Investments Commission, *Consumer decision making at retirement*, Report 31, (Chant Link & Associates) Australian Securities and Investments Commission, Sydney
ASIC (2003)	Australian Securities and Investments Commission, 'Quick Interview: Meir Statman', *Research Update*, Issue 2, p. 6, Australian Securities and Investments Commission, Sydney (unpublished)
ASIC (2002)	Australian Securities and Investments Commission, *Hook, line & sinker: Who takes the bait in cold calling scams?* Report 15, Australian Securities and Investments Commission, Sydney
ASIC & ACA (2003)	Australian Securities and Investments Commission and Australian Consumers Association, *Survey on the quality of financial planning advice*, Report 18, Australian Securities and Investments Commission, Sydney

Source code	Reference
ASX (2009)	Australian Securities Exchange, *2008 Australian Share Ownership Study,* Australian Securities Exchange, Sydney
Atkinson (2008)	Atkinson, A, *Evidence of impact: an overview of financial education evaluations*, Consumer Research 68, Financial Services Authority, London
AXA (2007)	AXA, *Avenue fourth quarter review: Learnings and recommendations*, AXA, London
Barber & Odean (2001)	Barber, BM & Odean, T, 'Boys will be boys: Gender, overconfidence, and common stock investment', *The Quarterly Journal of Economics*, vol. 116, no. 1, February, pp. 261–292
Barber & Odean (1999)	Barber, BM & Odean, T, 'The courage of misguided convictions', *Financial Analysts Journal*, November/December, pp. 41–55
brandmanagement (2008)	brandmanagement, Email detailing survey results about mass affluent Australians (received 12 June 2008) (private correspondence)
Brobeck (1999)	Brobeck, S, *Making household savings a priority*, Consumer Federation of America, Washington (DC)
CBA (2007)	Commonwealth Bank of Australia, *The Commonwealth Bank's 2007 'E-Money' survey highlights*, Media Release, 28 May 2007
CBA (2006)	Commonwealth Bank of Australia, *New survey reveals baby boomers are planning to live, not retire*, Media Release, 17 May 2006
CBF (2006)	Commonwealth Bank Foundation, *Australian financial literacy assessment,* CommFoundation, Sydney
CBF (2004)	Commonwealth Bank Foundation, *Improving financial literacy in Australia: Benefits for the individual and the nation*, CommFoundation, Sydney
Choi et al (2001)	Choi, JJ, Laibson, D, Madrian, BC & Metrick, A, *Defined contribution pensions: Plan rules, participant decisions, and the path of least resistance*, Working Paper no. 8655, National Bureau of Economic Research, Cambridge (Mass.)
Citibank (2010)	Citibank, *Results and insights from the Citi Fin-Q Survey*, Citigroup, Sydney (media release and private correspondence)
Citibank (2008)	Citibank, *Results and insights from the Citi Fin-Q Survey*, Citigroup, Sydney
Clark-Murphy & Gerrans (2002)	Clark-Murphy M & Gerrans P, *Women's 'problems' with investment—a result of gender differences in information processing?* Proceedings of the Eleventh International Women in Leadership Conference, Perth, Western Australia, pp. 3–12
Clark-Murphy et al (2002)	Clark-Murphy, M, Kristofferson, I & Gerrans, P, What makes superannuation decisions difficult? *International Journal of Business Studies*, 10(1), pp. 73–94
Cole & Shastry (2008)	Cole, S & Shastry, GK, *If you are so smart, why aren't you rich? The effects of education, financial literacy and cognitive ability on financial market participation*, Working Paper no. 09-071, Harvard Business School, Boston (Mass.)
Consumer Affairs Victoria (2006)	Consumer Affairs Victoria, *Information provision and education strategies*, Research Paper no. 3, Consumer Affairs Victoria, Melbourne

Source code	Reference
Criddle (2006)	Criddle E, 'Financial literacy: Goals and values, not just numbers', *In Alliance,* vol. 34, p. 4
Dawnay & Shah (2005)	Dawnay, E & Shah, H, *Behavioural economics: seven principles for policy-makers,* new economics foundation, London
Decision Technology (2007)	Decision Technology, *Turning good intentions into actions: challenges for the provision of financial advice*, Decision Technology Group, University of Warwick, Coventry (online)
de Meza et al (2008)	de Meza, D, Irlenbusch, B & Reyniers, D, *Financial capability: A behavioural economics perspective*, Consumer Research 69, Financial Services Authority, London
Elliott et al (2010)	Elliott, A, Dolan, P, Vlaev, I, Adriaenssens, C & Metcalfe, R, *Transforming Financial Behaviour: developing interventions that build financial capability, CFEB Consumer Research Report 01,* Consumer Financial Education Body, London
Evers & Jung (2007)	Habschick M, Siedl B & Evers J, *Survey of Financial Literacy Schemes in the EU27: VT Markt/2006/26H—Final report*, Financial Services Evers & Jung Research and Consulting, Hamburg
FaHCSIA (2009a)	Department of Families, Housing, Community Services and Indigenous Affairs, *Financial Management Tools and Resources—Research Report,* FaHCSIA, Sydney (unpublished)
FaHCSIA (2009b)	Department of Families, Housing, Community Services and Indigenous Affairs, *Financial Management Tools and Resources—Qualitative Research Report,* FaHCSIA, Sydney (unpublished)
FaHCSIA (2009c)	Department of Families, Housing, Community Services and Indigenous Affairs, *Financial Management Tools and Resources—Quantitative Research Report,* FaHCSIA, Sydney (unpublished)
Fear (2008)	Fear, J, *Choice overload: Australians coping with financial decisions*, Discussion Paper no. 99, The Australia Institute, Canberra
FINSIA (2009)	Financial Services Institute of Australasia, *Generational wealth divide research,* Financial Services Institute of Australasia, Sydney
FINSIA (2006)	Financial Services Institute of Australasia, *Saving the future: Can the under-40s afford to grow old?* Public Opinion Research Paper, Financial Services Institute of Australasia, Sydney
FLF (2008)	Financial Literacy Foundation, *Financial literacy: women understanding money*, Commonwealth of Australia, Canberra
FLF (2007a)	Financial Literacy Foundation, *Financial literacy: Australians understanding money*, Commonwealth of Australia, Canberra
FLF (2007b)	Financial Literacy Foundation, *Understanding money: Myplan concept, research and recommendation report*, (Deloitte Eclipse) Commonwealth of Australia, Canberra (unpublished)
FLF (2006)	Financial Literacy Foundation, *Evaluation of the 2006 understanding money campaign*, Commonwealth of Australia, Canberra (unpublished)

Source code	Reference
Flowers et al (2001)	Flowers, R, Chodkiewicz, A, Yasukawa, K, McEwen, C, Ng, D, Stanton, N & Johnston, B, *What is effective consumer education? A literature review*, Australian Securities and Investments Commission, Sydney
Fox & Bartholomae (2008)	Fox, J & Bartholomae, S, 'Financial education and program evaluation', in JJ Xiao (ed.) *Handbook of Consumer Finance Research*, Springer, New York, pp. 47–68
Fox et al (2005)	Fox, J, Bartholomae, S & Lee, J, 'Building the case for financial education', *Journal of Consumer Affairs*, vol. 39, pp. 195–213
FPA (2008)	Financial Planning Association, *Financial Advice 2013—White Paper*, (brandmanagement) Financial Planning Association, Sydney
FPA (2007)	Financial Planning Association, *Consumer attitudes to financial planning*, (Galaxy Research) Financial Planning Association, Sydney
Gallery et al (2010)	Gallery, N, Gallery, G, Brown, K, Furneaux, C & Palm, C, 'Financial literacy and pension investment decisions', *Financial Accountability and Management* (forthcoming)
Gervais & Odean (2001)	Gervais, S & Odean, T, 'Learning to be overconfident', *The Review of Financial Studies*, vol 14, pp. 1–27
Headey & Warren (2008)	Headey, B & Warren, D, *Families, incomes and jobs, volume 3: a statistical report on waves 1 to 5 of the HILDA Survey*, Melbourne Institute of Applied Economics and Social Research, The University of Melbourne
IFSA (2008a)	Investment and Financial Services Association, *Newspoll Survey: Half of Australians are concerned about financial markets but most holding nerve on super*, (Newspoll Market Research) Investment and Financial Services Association, Media Release, 30 October 2008
IFSA (2008b)	Investment and Financial Services Association, *Investors confidence: Improving financial understanding of Australians*, (TNS) Investment and Financial Services Association, Sydney
IFSA (2008c)	Investment and Financial Services Association, *Report of findings of qualitative research into effective disclosure (stage II)*, (Wallis Consulting Group) Investment and Financial Services Association, Sydney
IFSA (2007)	Investment and Financial Services Association, *Super decisions: Communicating with customers and effective disclosure,* (Investment Trends) Investment and Financial Services Association, Sydney
IFSA (2006)	Investment and Financial Services Association, *Investment Trends/IFSA self-managed super funds (SMSF) report: SMSF trends*, (Investment Trends) Investment and Financial Services Association, Sydney
ING (2008)	ING Australia, *Advisers lower investment threshold—survey*, (Nielsen) ING Australia, Media Release, 2 September 2008
ISN (2009)	Industry Super Network, *Financial Planners*, (Newspoll) Industry Super Network, Sydney (unpublished)
Investment Trends (2010)	Investment Trends, *Advice and Limited Advice Report: December 2009*, Investment Trends, Sydney (unpublished)

Source code	Reference
Investment Trends (2009)	Investment Trends, *2009 Retirement Income Report*, Investment Trends, Sydney (unpublished)
Iyengar et al (2003)	Iyengar, SS, Jiang, W & Huberman, G, *How much choice is too much? Contributions to 401(k) retirement plans*, Pension Research Council Working Paper, Pension Research Council, The Wharton School, University of Pennsylvania, Philadelphia
Lyons et al (2006)	Lyons, A, Palmer, L, Jayarantne, KSU & Scherpf, E, 'Are we making the grade? A national overview of financial education and program evaluation', *Journal of Consumer Affairs*, vol. 40, no. 2, pp. 208–235
Mandell (2006)	Mandell, L, *Financial literacy: Improving education: 2006 national Jump$tart Coalition survey*, Jump$tart Coalition for Personal Financial Literacy, Washington (DC)
MCEECDYA (2009)	Ministerial Council for Education, Early Childhood Development and Youth Affairs, *National Consumer and Financial Literacy Framework (Revised 2009)*, Ministerial Council for Education, Early Childhood Development and Youth Affairs, Canberra
Mitchell & Utkus (2003)	Mitchell, O & Utkus, S, *Lessons from behavioral finance for retirement plan design*, Pension Research Council Working Paper, Pension Research Council, The Wharton School, University of Pennsylvania, Philadelphia
MWS (2010)	Mercer Wealth Solutions, *Superannuation sentiment index*, Mercer Human Resource Consulting, Melbourne
MWS (2009)	Mercer Wealth Solutions, *Superannuation sentiment index*, Mercer Human Resource Consulting, Melbourne
MWS (2006)	Mercer Wealth Solutions, *Mercer 2006 financial literacy and retirement readiness study*, Mercer Human Resource Consulting, Melbourne
O'Connell (2007)	O'Connell, A, *Measuring the effectiveness of financial education*, Retirement Commission, Wellington
OECD (2005)	Organisation for Economic Co-operation and Development, *Improving financial literacy: Analysis of issues and policies*, Organisation for Economic Cooperation and Development, OECD Publishing, Paris
O'Neill et al (1999)	O'Neill, B, Bristow, B & Brennan, P, 'Changing financial behavior: Implications for family and consumer science professionals', *Journal of Family and Consumer Sciences: From Research to Practice*, vol. 91, no. 4, pp. 43–48
Productivity Commission (2007)	Productivity Commission, *Behavioural economics and public policy*, Roundtable Proceedings, Productivity Commission, Commonwealth of Australia, Canberra
Read (2007)	Read D, *Behavioural economics: Implications for consumer decision making in the market for advice*, University of Durham (unpublished)
Roy Morgan Research (2010a)	Roy Morgan Research, *2010 Single Source database*, Roy Morgan Research, Melbourne (12 months to March 2010) (unpublished)
Roy Morgan Research (2010b)	Roy Morgan Research, *2010 Single Source database*, Roy Morgan Research, Melbourne (12 months to December 2009) (unpublished)

Source code	Reference
Roy Morgan Research (2006)	Roy Morgan Research, *2006 Single Source database*, Roy Morgan Research, Melbourne (12 months to March 2006) (unpublished)
Russell et al (2008a)	Russell, R, Harlim, J & Brooks, R, *Saver Plus 2008 follow-up survey results*, (ANZ & Brotherhood of St Laurence) RMIT University, Melbourne
Russell et al (2008b)	Russell, R, Doan, MP, Harlim, J & Brooks, R, *Saver Plus 2008—interim report*, (ANZ & Brotherhood of St Laurence) RMIT University, Melbourne
Sandlant (2007)	Sandlant, R, *Behavioural change and public policy implications*, internal working paper, Financial Literacy Foundation, Canberra (unpublished)
Saunders & Sampson (1998)	Saunders, S & Sampson, J, 'Desirable calculators: Women, money and power', *Literacy & Numeracy Studies,* vol. 8, no. 1, pp. 23–36
Thaler & Benartzi (2004)	Thaler, RH & Benartzi, S, 'Save more tomorrow: Using behavioral economics to increase employee saving', *Journal of Political Economy*, vol. 112, no. 1, pt. 2, pp. 164–187
Thaler & Sunstein (2008)	Thaler, RH & Sunstein, CR, *Nudge: Improving decisions about health, wealth and happiness*, Yale University Press, New Haven
Thoresen (2008)	Thoresen, O, *Thoresen review of generic financial advice: Final report*, HM Treasury, London
Tversky & Kahneman (1991)	Tversky, A & Kahneman, D, 'Loss aversion in riskless choice: A reference-dependent model', *Quarterly Journal of Economics*, vol. 106, no. 4, pp. 1039–1061
Tversky & Kahneman (1981)	Tversky, A & Kahneman D, 'The framing of decisions and the psychology of choice', *Science*, new series, vol. 211, no. 4481, pp. 453–458
Tversky & Kahneman (1974)	Tversky, A & Kahneman, D, 'Judgment under uncertainty: Heuristics and biases', *Science*, new series, vol. 185, no. 4157, pp. 1124–1131
Westpac & ASFA (2009)	Westpac & Association of Superannuation Funds of Australia, *Westpac-ASFA Retirement Standard—Detailed Budget Breakdowns: Comfortable Lifestyle and Modest Lifestyle*, December Quarter 2009, Westpac Banking Corporation and Association of Superannuation Funds of Australia Limited, Sydney
Willis (2008)	Willis, L, 'Against financial literacy education', *Iowa Law Review*, vol. 94, pp. 197–285
WIRE (2010)	WIRE Women's Information, *Women's financial literacy research report*, WIRE Women's Information and Referral Exchange Inc, Melbourne
WIRE (2007)	WIRE Women's Information, *Women's financial literacy research report*, WIRE Women's Information and Referral Exchange Inc, Melbourne
Worthington (2006)	Worthington, AC, *Predicting financial literacy in Australia*, Faculty of Commerce, University of Wollongong, Wollongong
Xiao & Wu (2006)	Xiao, JJ & Wu, J, *Encouraging behavior change in credit counseling: An application of the transtheoretical model of change (TTM)*, TCAI Working Paper, Take Charge America Institute for Consumer Financial Education and Research, University of Arizona, Tucson