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HOW DO SAVERS THINK ABOUT AND RESPOND TO RISK?

Evidence from a population survey and lessons for the investment industry

David Blake and Alistair Haig

February 2014

How do savers think about and respond to risk? Evidence from a population survey and lessons for the investment industry

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The Pensions Institute (www.pensions-institute.org) is the first and only UK academic research centre focused on pensions issues. The views expressed in this report are those of the authors and not the Pensions Institute which takes no policy positions.

Preface

Between 29 November and 2 December 2013, YouGov conducted a population survey on behalf of the Pensions Institute which was designed to elicit savers' attitudes to taking risk in order to achieve their savings goals. A representative sample of 4,154 individuals from the GB adult (18+) population completed the online survey. The sample included those not participating in the workforce, as well as employees and retired workers.

Risk is a complex multi-dimensional concept, but we tried to simplify matters by breaking the savings process into two main stages: a savings stage and an investment stage. We invited the respondents to consider the 'savings risk' of falling short of the target established by the savings goals they set themselves. We first invited respondents to consider the trade-offs they would make in order to reduce the shortfall.

Only then did we ask respondents to consider the investment dimension of risk, namely the investment risk that is associated with the investment funds or vehicles that savers use to help them achieve their savings goals. We find that most savers do not like taking investment risk. But investment risk taking is an unavoidable feature of long-term savings plans, unless individuals are willing to invest considerable sums in low-risk vehicles with returns that are so low that they might fail to beat inflation. Our survey was designed to get respondents to confront these unavoidable tradeoffs and to attempt to quantify them.

The findings from our survey have important implications for savers. We find that savers do not tend to think about risk in an integrated way, especially when it comes to long-term risk. Instead they appear to think in segmented boxes. This is very bad for long term planning, since it can lead to inconsistencies. To illustrate, it is possible for people facing a savings shortfall to also be reluctant to either save more or take more investment risk to increase the expected return on their savings. It is important therefore that savers recognise that they might be subject to inconsistencies and behavioural barriers when implementing their savings plans which means they might fail to achieve their savings goals. We propose ways to help savers deal with these issues. These also provide useful lessons for the investment industry, including both financial advisers and product providers.

We are grateful to Moody's Analytics and Santander Asset Management for sponsoring this study and to A2Risk for use of their attitude to risk questionnaire. Moody's Analytics gave constructive advice on the design of the survey but did not seek to influence the findings of this report in any way.

David Blake and Alistair Haig

February 2014

Lessons for the investment industry

Lesson 1: Help savers focus on their savings goals

Nearly half (46%) of respondents agreed that they consider what they are saving for in terms of specific savings goals. In particular, savers tend to prioritise rainy-day savings ahead of savings for anticipated future expenses (45%). This strongly suggests that many savers are predominantly concerned with what might happen, rather than what they know will happen and can plan for. Only 29% prioritise long-term savings, and these are concentrated in the 35-55 age group.

Savers, particularly in the 35-55 age group which is the key age range for building up long-term savings, therefore need to pay more attention to their longer-term savings goals, if they are to meet anticipated future expenses.

Lesson 2: Provide better information to help savers understand if their plans are adequate to achieve their savings goals

There is a great deal of evidence to indicate that many people are not saving enough to meet their long-term savings goals. There are two issues here: adequacy and commitment.

Savers might benefit from some simple generic information showing the relationship between the amounts saved and the resulting fund that will be accumulated for different investment horizons and interest rates. This would help savers assess whether they are making adequate provision to meet their savings goals on time.

Savers also need to be better informed about the danger of failing to meet their goals through lack of commitment. We know that pre-commitment devices such as 'save more tomorrow' plans and direct debit arrangements (both of which exploit inertia in behaviour) can be effective 'nudges' to get people to start and remain committed to long-term savings plans.

It is important for savers to establish priorities for dealing with a savings shortfall and to be aware of the consequences of the plan they adopt to deal with the shortfall for subsequent outcomes. Again pre-commitment devices would be useful for those with the strongest saving goals, e.g., direct debit arrangements which automatically trigger increases in contributions in response to the occurrence of a savings shortfall.

Lesson 3: Explain the trade-off between investment risk and reduced spending in helping to achieve savings goals

More than half (52%) of respondents would prefer to miss their savings goals than take investment risk,[1] with only 12% not prepared to do this. This highlights a reluctance by a majority of savers to take the investment risk needed to achieve their savings goals. This has been referred to as 'reckless conservatism'. The only alternative if savings goals are to be achieved on time is to reduce spending and save more. Yet this trade-off is preferred by less than one third (30%) of respondents.

The survey suggests that savers find it difficult to think about investment risk and savings risk (the risk of failing to achieve savings goals) in a coherent integrated way. They find it difficult to evaluate the trade-off between investment risk and savings risk. There is also a reluctance by many people facing a savings shortfall to reduce spending or change 'recklessly conservative' investment behaviour.

People should be encouraged to think in a holistic way about investment and savings risk, that risk is an unavoidable feature of long-term savings plans, and that if they want to meet their savings goals, they need to be prepared either to take controlled investment risks or save a great deal more in very low-risk investment vehicles, which are not actually riskless once inflation is taken into account.

Lesson 4: Taken in isolation, a saver's attitude to risk score is not a good guide to the amount of savings risk a saver is able and willing to take

While there was a clear relationship between the attitude to risk score and the level of investment risk individuals are prepared to take (measured by the size of investment loss before respondents become very uncomfortable), the survey shows that there is no relationship between attitude to risk and the respondents' savings goals or the amount of savings risk (in terms of a shortfall from savings goals) they are willing and able to take.

This suggests that relying solely on a saver's attitude to risk, or an associated investment risk rating, which is common industry practice, will lead to investment decisions or investment advice which might not reflect the level of risk needed to achieve their stated savings goals.

There needs to be better communication tools to help savers think about investment risk in terms of savings goals. This would cover issues such as:

- Explaining the effect of inflation in reducing the real value of savings
- Explaining the trade-off between taking investment risk and meeting savings goals
- Explaining investment risk in a way that does not simply show the 'downside' of investing in risky assets, but also explains the potential value in terms of mitigating risk in relation to savings goals (and hence avoiding reckless conservatism).

In short, there is a need to ensure savers are given better information about how much risk they are taking (in respect of both savings risk and investment risk).

1 The value of an investment when it is needed to meet a savings goal could be lower than was anticipated at the time the investment was first made.

Lesson 5: Provide better designed investment products with clearly communicated risk objectives

There needs to be better designed investment products, with clear risk objectives (e.g., defined volatility, downside risk or outcome targets), which can be aligned with the savings goals and risk appetites of different savers. Recent responses from the fund management industry, including risk-targeted funds, target date funds, diversified growth funds and income targeting funds, are examples of the industry's efforts to accommodate individual risk preferences and savings goals.

If such funds can deliver what they claim to deliver, e.g. more stable returns with limited downside losses over long investment horizons, this might help to persuade more investors to move away from their current low return – low risk comfort zone.

1. Key messages from the survey

1.1 Findings

The purpose of the survey is to find out how savers think about risk. Risk is a complex multi-dimensional concept which, as our survey shows, most people see as a 'threat' rather than an 'opportunity'. To simplify matters, we broke down the savings process into stages and asked respondents to consider potential risks at each stage in the process. This enabled us to reduce the issue to two key risks: what we label 'savings risk' and 'investment risk'. We also asked respondents to tell us how they would react – in terms of making unavoidable trade-offs – when faced with specific aspects of savings and investment risk. Finally, we invited them to quantify the risks they would be willing to take.

Our starting point: savings habits and goals

Many people are unable to save and have difficulty making ends meet. Others could save, but have never been in the habit of saving. Our first questions asked people whether they are able to save, whether they would prefer to pay off any debts before saving, and whether they are in the habit of saving. Around half of respondents are able to save on a regular basis (48%), and a similar percentage have a savings habit (53%). More than three-quarters (76%) would prefer to pay off debts before considering whether to save regularly.

People who save do so for different reasons. We find that around half (46%) of GB adults set specific savings goals.[2] We asked our respondents to consider the following key savings goals:

A A long-term savings fund to meet anticipated future expenses beyond, say, 10 years ahead (e.g., to pay for children's education or to support a reasonable standard of living in retirement)

B A short-term savings fund to meet anticipated future expenses up to, say, 10 years ahead (e.g., holidays, mortgage deposit, substantial home improvements)

C A rainy day fund to cover unanticipated expenses (e.g., to provide security if made redundant, or faced some other large cost – such as a car repair– which has not been budgeted for).

Most respondents prioritised their savings goals as follows: first a precautionary or rainy-day fund (45%), second a long-term savings fund (29%), and third a short-term savings fund (26%). Only 29% of the sample put long-term savings goals as their first priority. However, if we look at the subset of respondents who prioritise short-term or long-term savings goals over a rainy-day fund, then most people in the 35-55 age group prioritise long-term over short-term goals, while the opposite is true for the under-35s and the over-55s. Further, long-term goals are more strongly held than short-term goals.

2 This is consistent with findings of the Money Advice Service (2013).

The first key risk to consider: savings risk

Savings risk is the risk of falling short of a savings goal or target. Respondents were given some tough choices when faced with the scenario of an unexpected shortfall. They were asked to order their preferences over the following four choices: A – accept a lower outcome (e.g., have a less expensive holiday or have a lower standard of living in retirement), B – wait longer, C – reduce spending and save more, or D – use or 'borrow from' another savings account.

In terms of dealing with a short-term shortfall, we find that 37% of respondents prefer accepting a lower outcome as their first choice, 30% prefer reducing spending and saving more as their first choice, 26% prefer to wait longer as their first choice, and only 7% prefer to borrow from their long-term fund as their first choice. In terms of dealing with a long-term shortfall, we find that 33% prefer reducing spending and saving more as their first choice, 29% of respondents prefer accepting a lower outcome as their first choice, 26% prefer to wait longer as their first choice, and only 12% prefer to borrow from their short-term fund as their first choice. Those who prioritise reducing spending in response to a shortfall would appear to have the strongest savings goals, followed by those who prefer to wait longer. Those prepared to accept a lower outcome as their first choice would appear to have much weaker savings goals.

One clear preference stands out: the reluctance to dip into long-term savings to meet a shortfall in short-term savings goals and vice versa. This provides support for the idea from behavioural finance that people have different 'mental accounts' for their savings goals and are reluctant to 'borrow from' them for other purposes (i.e., the mental accounts are not fungible). This holds very strongly for the long-term fund: only as a last resort are most people prepared to dip into this to meet short-term savings goals. A slightly bigger percentage of people are, however, prepared to use their short-term fund if they face the risk of a shortfall in their long-term savings goals.

Disconnect between savers' intentions and actions

The idea that savers are thinking about the long term, and would not deplete long-term funds to meet their short-term objectives, may appear to contrast with the findings of previous studies which note the challenges to sustainable savings and, in particular, the inadequacies of savings towards retirement.[3] How can this be explained? One explanation is that some of our respondents' replies may be aspirational, suggesting what they should do, rather than what is their actual practice. There may also be an attitude that saving something, even a little, will be sufficient. It was not the purpose of our survey to enquire whether respondents thought they are making adequate contributions to their savings in order to meet their goals; rather our purpose was to discover what they would do if they faced the risk of an unexpected savings shortfall.[4,5]

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3 See the industry studies, cited in the references.

4 In other words, we made the implicit assumption that if people have savings goals, they will plan to save sufficient amounts to meet these goals. Accordingly, they will not anticipate having a savings shortfall. They might, however, have to deal with an unexpected shortfall if some unanticipated event occurs, e.g., a stock market crash or a change in family circumstances.

5 There are a number of existing studies showing how inadequately prepared many people are for retirement, e.g., Banks et al. (2005), Crawford and O'Dea (2012), and Department for Work and Pensions (2012): the latter study estimates that 38% of the UK population face inadequate retirement incomes.

The second key risk to consider: investment risk

If someone wants to meet their savings goals on time, they need to choose an appropriate investment vehicle for their savings. Most such vehicles involve investment risk: the investment fund has a lower value at the time it is needed to meet a savings goal than was anticipated at the time the investment was first made. Those that do not involve investment risk generally have very low returns. Savers therefore face an unavoidable trade-off. They can put their savings into low return – low risk investment vehicles, but have to save more to meet their savings goals on time. Alternatively, they can invest in higher risk investments whose higher expected returns mean that they might need to save less on average to meet their savings goals on time.

Just over half (55%) of respondents understand that they need to take some investment risk in order to achieve their savings goals. Nevertheless, only 27% of respondents find investment matters easy to understand and more than two-thirds (69%) of respondents have little direct experience of investing. This shows the extent of the investment challenge that savers need to overcome if they are to meet their long-term savings goals in particular.

Investment trade-offs

Our next set of questions invited respondents to consider the key investment trade-offs that need to be made.

A majority of respondents (56%), unsurprisingly, prefer to hold their short-term savings funds in liquid accounts – such as bank and building society accounts – and are prepared to accept a lower return in exchange for this liquidity. More surprisingly, almost half (48%) of respondents are prepared to sacrifice real (inflation-adjusted) returns in order to avoid investing in assets with volatile returns which nevertheless have positive real returns in the long run. Only 19% of respondents are not prepared to invest in assets with negative real returns.

Nearly two-thirds (62%) of respondents prefer investments that provide a stable level of income, even if this meant accepting a lower level of capital growth. Finally, just over half (52%) of respondents would prefer to miss their savings goals than take investment risk. Only around one in ten (12%) would not be prepared to do this.

Overall, we find that a majority of respondents are reluctant to take the investment risk that is needed to achieve at least their long-term savings goals. This has been called a strategy of 'reckless conservatism'.[6] The only alternative if savings goals are to be achieved on time is to reduce spending and save more. Yet this option is preferred by just 30% of respondents in respect of short-term goals and by 33% of respondents in respect of long-term goals. This leaves an interesting challenge about how to square this circle.

6 See, e.g., 'Actuaries advise against "reckless conservatism"', *Financial News*, 27 June 2000. (http://www.efinancialnews.com/story/2000-06-27/actuaries-advise-against-reckless-conservatism?ea9c8a2de0ee111045601ab04d673622)

Quantifying savings and investment risks

The next section of the survey asked respondents to quantify the level of savings and investment risks they are willing and able to tolerate. In the event of a shortfall, we asked what the limit to the shortfall would be: the questions we asked deliberately combined willingness and ability to accept a 'loss'.

We find that 16% of respondents are reluctant to accept any shortfall on their short-term savings goals. A little over one fifth (22%) are willing to accept up to a 5% shortfall, while almost a quarter (24%) are willing to accept up to a 10% shortfall. Only one in ten (10%) are willing to accept more than a 10% shortfall. This implies that nearly four savers out of ten (38%) can be regarded as being strongly committed to meeting their short-term savings goals (in terms of being willing to accept a shortfall of no more than 5%). We also find that 20% of respondents are reluctant to accept any shortfall on their long-term savings goals. Over one quarter (26%) are willing to accept up to a 5% shortfall, while another 18% are willing to accept up to a 10% shortfall. Only 7% are willing to accept a savings shortfall greater than 10%. This implies that 46% of savers claim to be strongly committed to meeting their long-term savings goals.

When it comes to quantifying investment risk, nearly one in five (19%) of our respondents would feel very uncomfortable accepting any reduction in the value of their investments. Similar percentages would be very uncomfortable with a 5% fall (18%) and a 10% fall (22%). In other words, 59% of respondents would be very uncomfortable with falls of up to 10%. Only 6% of investors would be prepared to tolerate investment losses of more than 20%, the kind of losses that quite frequently occur in stock market investments.

How are savings goals and investment shortfalls related to attitude to risk?

The final section of the survey invited respondents to answer a series of questions which allowed us to assess their attitude to risk. The questions came from the Attitude to Risk Questionnaire (ATRQ) developed by A2Risk.[7] They allowed us to allocate respondents to one of five investment risk categories: cautious, moderately cautious, balanced, moderately adventurous, and adventurous. We could then ascertain whether respondents' answers to some of our previous questions are linked to their attitude to risk.

We find that there appears to be no relationship between either short-term or long-term savings risk and attitude to risk. This suggests that people think about risk on the savings side completely independently of how they think about risk on the investment side. In other words, they put the different dimensions of risk into different mental boxes, rather than thinking about risk in an integrated holistic way.

Our analysis shows that, in general, the size of the investment loss before respondents begin to feel very uncomfortable does increase with reported risk appetite. In the case of adventurous investors, 27% would be prepared to accept a loss of 20%, while 22% would be prepared to accept a loss of more than 20%. These figures fall to 10% and 3%, respectively, for cautious investors.

7 Information about the A2Risk ATRQ is included in Appendix B.

1.2 Implications

As our sample is representative of the population as a whole, then around half the population save regularly (48%), have been able to save consistently through time (53%), and also think about savings in terms of specific savings goals (46%).

We find evidence that savers have different 'mental accounts' for their different savings goals: a rainy-day fund, a short-term fund, and a long-term fund. However, less than one-in-three (29%) prioritise long-term savings, and these are concentrated in the 35-55 age group. This suggests that **more savers, especially in the 35-55 age group, should pay more attention to their long-term savings plans which otherwise are in danger of being relegated to the back of the queue in terms of priorities. There are two aspects here: adequacy and commitment.**

As mentioned above, **there is plenty of evidence to indicate that many people are not saving enough to meet their long-term savings goals. This suggests that savers might benefit from some simple generic information showing the relationship between the amounts saved and the resulting fund that will be accumulated for different investment horizons and interest rates. This would help savers assess whether they are making adequate provision to meet their savings goals on time.**[8]

Savers also need to be better informed about the danger of failing to meet their goals through lack of commitment. We know that pre-commitment devices such as 'save more tomorrow' plans and direct debit arrangements (both of which exploit inertia in behaviour) can be effective 'nudges' to get people to start and remain committed to long-term savings plans (Thaler and Sunstein (2008)).

We call the risk of falling short of savings goals 'savings risk'. Those who prioritise reducing spending in response to a savings shortfall would appear to have the strongest savings goals, followed by those who prefer to wait longer. Those prepared to accept a lower outcome as their first choice would appear to have much weaker savings goals. **It is important for savers to establish priorities for dealing with a savings shortfall and to be aware of the consequences of the plan they adopt to deal with the shortfall for subsequent outcomes. Again pre-commitment devices would be useful for those with the strongest saving goals, e.g., direct debit arrangements which automatically trigger increases in contributions in response to the occurrence of a savings shortfall. Of particular significance is the reluctance by most people to dip into another 'mental account' to meet a savings goal intended to be met from a different mental account. This provides a valuable protective barrier for the different types of savings.**

More than half (55%) of savers understand that they need to take some 'investment risk' to meet their savings goals. Most investment vehicles involve investment risk. Investment vehicles with no investment risk generally have very low returns.

Nevertheless, when it comes to investing, especially long-term investing, there are considerable barriers to overcome. First, many people do not find investment matters easy to understand (38%) or have direct experience of investing in

8 There are some examples of savings calculators available in the market, e.g., at the Money Advice Service (https://www.moneyadviceservice.org.uk/en/tools/savings-calculator).

stocks and shares (69%). Second, there is a strong preference for investments generating stable returns, even if this is at the expense of capital growth and inflation (48%).

Third, our survey suggests that people think about risk in terms of a shortfall or 'loss' from some target. It might be a shortfall or loss with respect to a savings goal or it might be a shortfall or loss with respect to a target value for their investments (e.g., it might be the initial value of their investment, implying that individuals do not like any loss on their savings and wealth). In other words, people are 'loss averse'. This view is supported by research by behavioural psychologists and economists (Kahneman and Tversky (1979), Tversky and Kahneman (1991), and Blake et al. (2013)).

Our survey showed that, regardless of attitude to risk, most savers said they would be 'very uncomfortable' if they sustained investment losses of more than 10%: this includes affluent savers who claim to be adventurous in their attitude to risk. Around 20% would be willing to accept investment losses of 20% or more. All this points in the direction of choosing a long-term investment strategy that is 'recklessly conservative', by being dominated by low return – low risk assets.

Furthermore, **people do not tend to think about risk in an integrated way, especially if it relates to a long-term risk. Instead they appear to think in segmented boxes. This is very bad for long term planning, since it can lead to inconsistencies. For example, there is a reluctance by many people facing a savings shortfall to reduce their spending or change their recklessly conservative investment behaviour.**

To overcome this, **people should be encouraged to think in a holistic way about savings and investment risk, that risk is an unavoidable feature of long-term savings plans (in particular), and that, if they want to meet their savings goals on time, they need to be prepared to either take controlled investment risk or save a great deal more in low-risk investment vehicles which are actually not riskless once inflation is taken into account.**

To achieve this, there needs to be better communication to savers about investment risk in terms of savings goals. This would cover issues such as:

- **Explaining the effect of inflation in reducing the real value of savings**
- **Explaining the trade-off between taking investment risk and meeting savings goals**
- **Explaining investment risk in a way that does not simply show the 'downside' of investing in risky assets, but also explains the potential value in terms of mitigating risk in relation to savings goals (and hence avoiding reckless conservatism).**

Our survey does not enable us to make recommendations about the specific risk measures which might be used, however.

There needs to be better designed investment products, with clear risk objectives (e.g., defined volatility, downside risk or outcome targets), which can be aligned with the savings goals and risk appetites of different savers. Recent responses from the fund management industry including risk-targeted funds, target date funds, diversified growth funds and income targeting funds are examples of the industry's efforts to accommodate individual risk preferences and savings goals.

If such funds can deliver what they claim to deliver, e.g. more stable returns with limited downside losses over long investment horizons, this might help to persuade more investors to move away from their current low return – low risk comfort zone.

2. Detailed analysis of the survey

2.1 Savings habits and goals

The first section of the survey was designed to build up a picture of general attitudes towards savings before examining the issue of risk.

We made clear that by 'savings' we mean any type of savings or investment fund or vehicle including bank accounts, building society accounts, national savings, other deposit accounts, bonds, shares, property, ISAs and pensions. Whilst we appreciate that different people have different ideas of what savings and investments mean, and the terms have different meanings in economics than in finance, the aim here is to find a broad measure rather than focus on a narrow definition of savings or investment.

It was also made clear to respondents who are not currently saving that we would like them to think about how they would respond if they were saving. This allows for the possibilities that some people have saved in the past (e.g., retirees), might save in the future (e.g., students) or for some other reason are not currently saving.

Respondents are asked to what extent they agree or disagree with each of the following statements according to a five-point Likert scale: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.

Chart 2.1: The ability to save

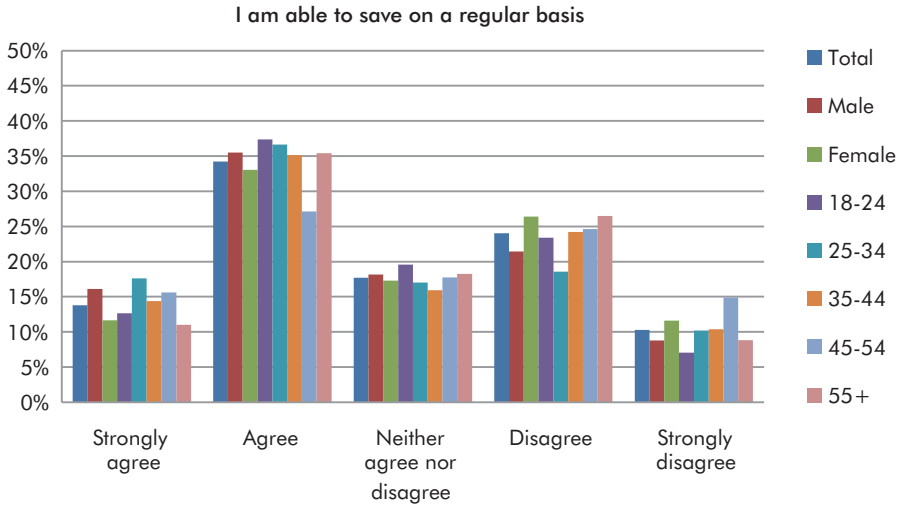
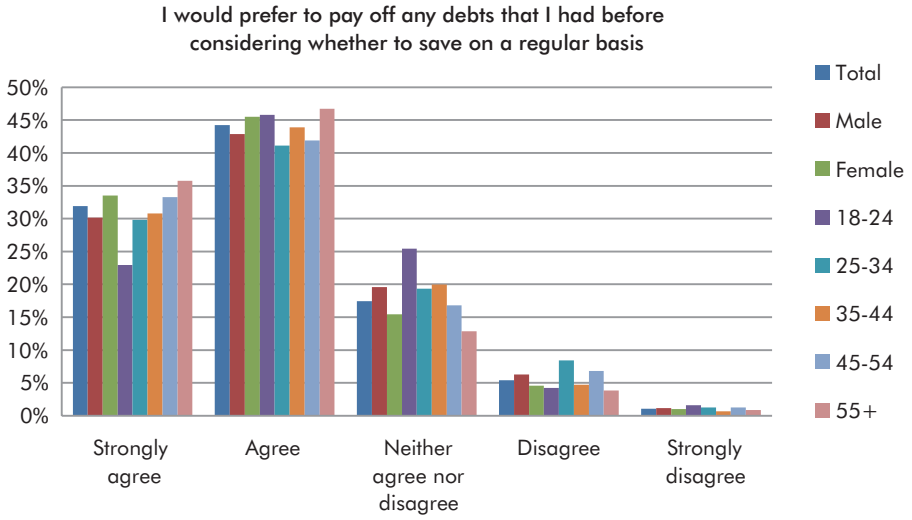


Chart 2.1 shows that **around half (48%) of the respondents are able to save on a regular basis**. Perhaps this is surprisingly high after some five years of economic downturn. It also appears to be surprisingly high given the widespread concerns that we are collectively undersaving in this country by a significant extent,[9] although we did not ask respondents to quantify the level of savings they currently make. Men are a little more likely to be regular savers than women (52% vs. 45%). There is not much difference between the age groups, although the 45-54 age group appears to be slightly less able to save regularly than the other groups (at 43%).

9 As reported in the industry studies listed in the reference section.

Chart 2.2: Prioritising debt



Given the level of consumer debt in this country, we asked respondents to consider savings in the light of any debts that they might have. Debt could be anything from credit cards to mortgages. **Around three-quarters (76%) of respondents would prefer to pay down debts before considering saving on a regular basis** (see Chart 2.2). Women (79%) and older people aged 55+ (82%) are more willing to do this than men (73%) and younger people aged 18-24 (69%).

Chart 2.3: The habit of saving

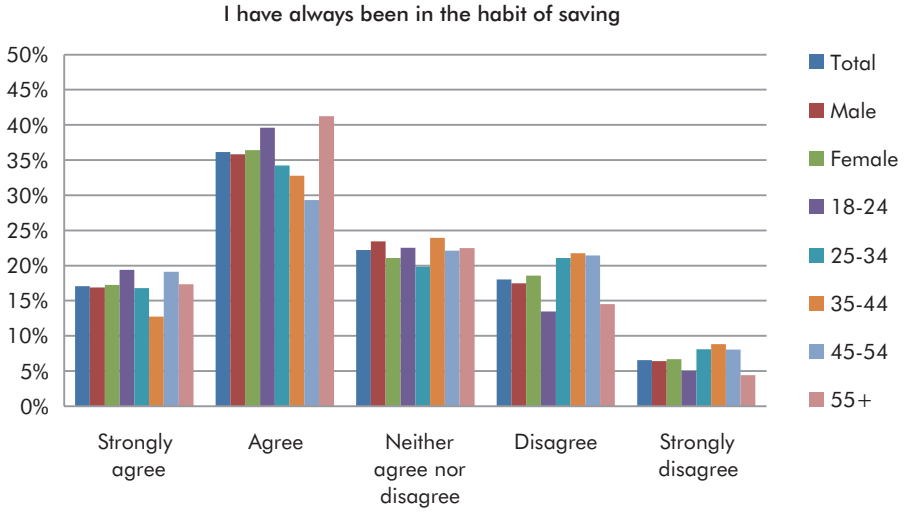


Chart 2.3 shows that **over half (53%) of respondents report having a savings habit**. Those in the 18-24 and 55+ age groups are the most likely to have a savings habit (both 59%); many in the 25-54 age range are likely to have debt repayment priorities. Marginally more women than men report being habitual savers (54% vs 53%). Again these findings might be surprising given recent media attention on indebtedness and payday loans.

Chart 2.4: Do savers set specific savings goals?

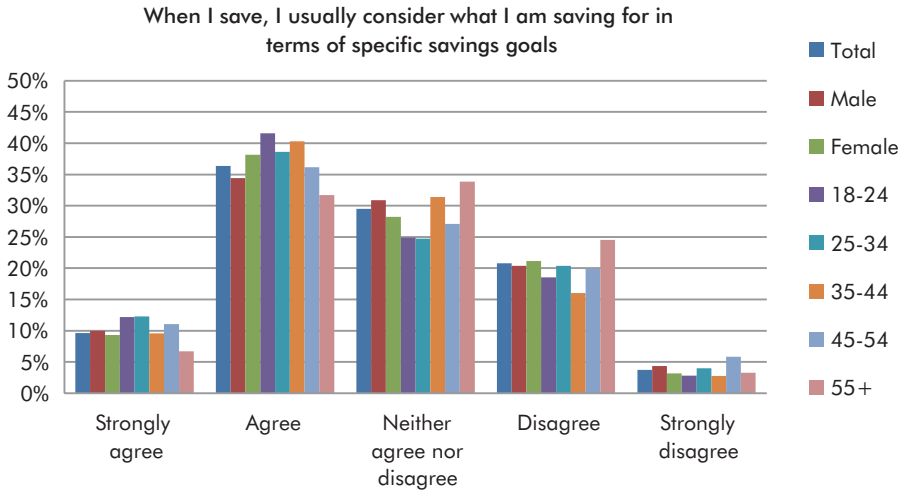


Chart 2.4 shows that **a fairly strong tendency to think about savings in terms of specific goals is demonstrated by under half (46%) of respondents**, with women (47%) and younger people aged 18-24 (54%) reporting this tendency marginally more than men (44%) and older people aged 55+ (38%).

We should be aware that the results so far might reflect 'the right thing to do' rather than 'what I actually do'. This echoes the view that savers have good intentions but often need pre-commitment devices or 'nudges' to turn aspirations into positive actions.[10]

Defining 'short-term' to mean any period up to ten years ahead and 'long-term' to mean the period beyond 10 years, our final question in this segment invited respondents to prioritise their savings goals – if they had any – in terms of the following choices:

A A long-term savings fund to meet anticipated future expenses beyond, say, 10 years ahead (e.g., to pay for my children's education or to support a reasonable standard of living in retirement)

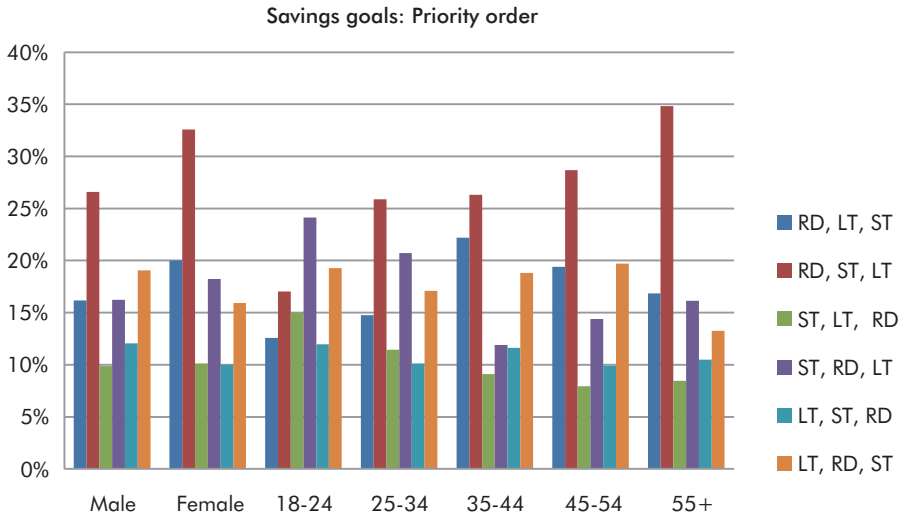
B A short-term savings fund to meet anticipated future expenses up to, say, 10 years ahead (e.g., holidays, mortgage deposit, substantial home improvements)

C A rainy-day fund to cover unanticipated expenses (e.g., to provide security if I were made redundant, or faced some other large cost – such as a repair to my car – which has not been budgeted for).

The idea here is that savers might use what behavioural finance academics call different 'mental accounts' for their different savings goals (Thaler (1985, 1990, and 1999)). For example, they might have a short-term mental account to meet their short-term savings goals, such as paying for their next summer holiday. They might have a different long-term mental account to for their pension savings and post-retirement spending plans.

10 See, e.g., Thaler and Sunstein (2008) and Aegon (2010).

Chart 2.5: Savings goals: Priority order



RD = Rainy-day fund, ST = Short-term fund, LT = Long-term fund

Chart 2.5 shows our analysis of the priority order chosen by our sample in different age bands. For example: **'RD, ST, LT' represents the percentage of respondents who prioritise rainy-day (precautionary) savings goals and give lowest priority to long-term (over ten years) savings goals. This is the order preferred at all ages after 25**. Those under 25 preferred the ordering 'ST, RD, LT', suggesting that they would rather have a holiday than repair some possession, possibly because they have fewer possessions that might need repairing than older people or because they can rely on parents to cover such costs. Only 29% of the sample put long-term savings goals as their first priority. **However, if we look at the subset of respondents who prioritise short-term or long-term savings goals over a rainy-day fund (i.e., those in the last four columns in each demographic band), then most of these people in the 35-55 age group prioritise long-term over short-term goals, while the opposite is true for the under-35s and the over-55s**.

As a robustness check, the results were filtered to remove respondents who expressed that they did not have savings goals. This resulted in a very similar set of results, which are also found to be broadly independent of home ownership, home value and most income brackets.

2.2 Savings risk: understanding and managing shortfalls from savings goals

Having established that around half of our respondents have both a savings habit (53%) and a similar number have at least the intention to save towards specific goals (46%), **our next objective is to assess how people cope should their savings not meet these goals. We call the risk of this happening 'savings risk'. It is measured by the likelihood and size of a savings shortfall**. We argue that it is the first major risk that savers need to confront if they are behaving rationally over their lifecycle and use savings both to smooth consumption over time and, in particular, to reallocate this expenditure from when they are in work to when they are retired (see, e.g., Blake et al. (2014)). We invited our sample to consider what trade-offs they would be prepared to make in the event of a shortfall from first their short-term goals and then their long-term goals.

Short-term trade-offs

In respect of a shortfall from achieving their short-term savings goals, respondents were asked to state an order of preference over the following options:

A Accept an outcome that was below my target (e.g., have a less expensive holiday)

B Wait longer to achieve my target

C Reduce my spending today, so I can pay more into my short-term fund in order to give me a better chance of achieving my target

D Use (i.e., 'borrow from') my long-term fund to make up the shortfall, accepting that this means I may fail to meet my long-term target (e.g., a lower standard of living in retirement).

For example, ABCD represents the following preference order: first preference = accept a lower outcome; second preference = wait longer; third preference = reduce spending; fourth preference = use long-term fund.

Chart 2.6: How savers deal with a shortfall in short-term savings goals

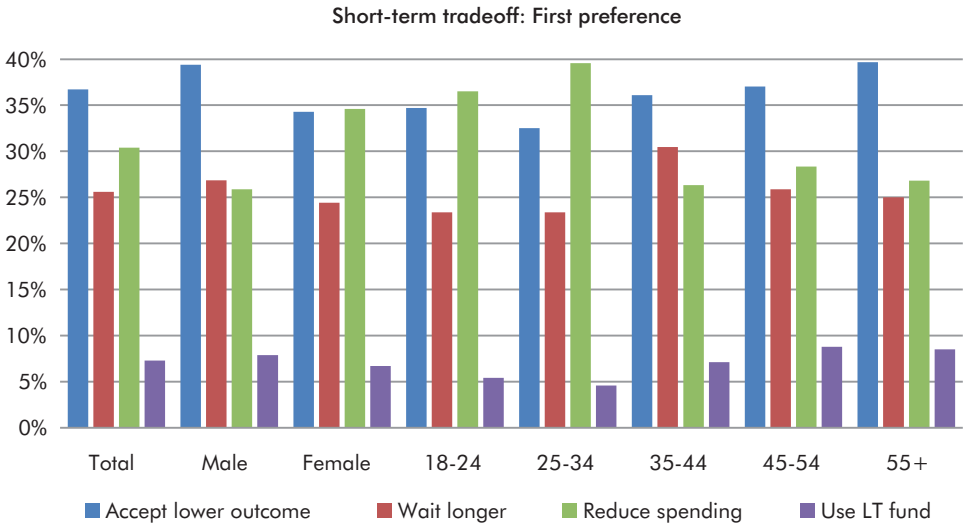


Chart 2.6 shows the distribution of first preferences for dealing with a shortfall in short-term savings goals. **Making do with a smaller savings pot and hence accepting a lower outcome is the first choice for 37% of respondents. This is followed by spending cutbacks (chosen by 30%) and then waiting longer (chosen by 26%). Only a minority (7% in total) prefer to dip into long-term savings to meet short-term savings goals.** Those in the 18-34 age range would be prepared to reduce spending as a first preference (37%).

The information in Chart 2.6 also gives us some indication of the strength of respondents' short-term savings goals. **Those who give a high prominence to option A would appear not to have particularly strong short-term savings goals. Those with the strongest short-term savings goals would appear to be those who would be prepared to reduce spending and increase savings.**

Long-term trade-offs

Turning to a possible shortfall from achieving long-term savings goals, respondents are asked to rank each of the following:

A Accept an outcome that was below my target (e.g., have a lower standard of living in retirement)

B Wait longer to achieve my target

C Reduce my spending today, so I can pay more into my long-term fund in order to give me a better chance of achieving my target

D Use (i.e., 'borrow from') my short-term fund to make up the shortfall, accepting that this means I may fail to meet my short-term target (e.g., spend less on holidays)

Chart 2.7: How savers deal with a shortfall in long-term savings goals

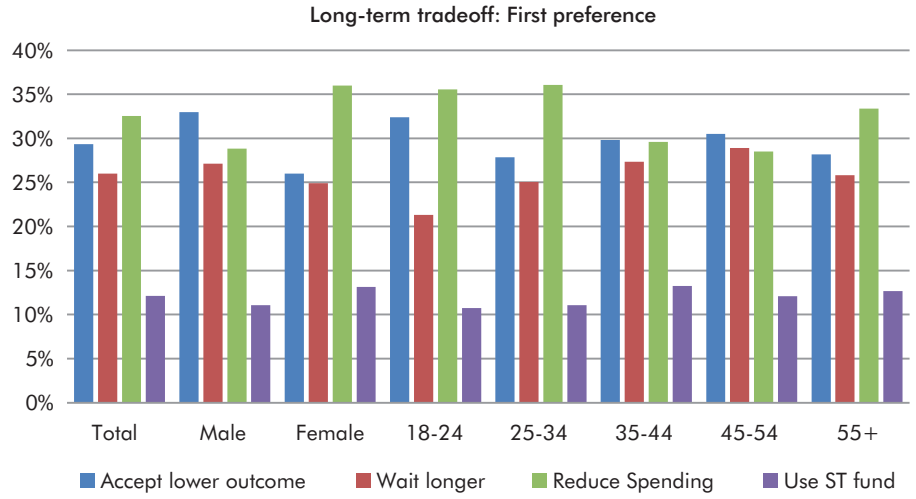


Chart 2.7 shows that **when it comes to a shortfall in long-term savings goals, the dominant first preference is to reduce spending and increase saving (preferred by 33%). This is true for women (36%) and most age groups. This is followed by accepting a lower outcome (chosen by 29%) and then waiting longer (chosen by 29% and 26%, respectively). 'Borrowing' from their short-term savings fund is the first choice of only 12% of respondents.**

Comparing Charts 2.6 and 2.7, we observe that **long-term goals are more strongly held than short-term goals: there is less willingness to accept a lower outcome and a greater willingness to defer consumption in the event of a shortfall (both 26%).**

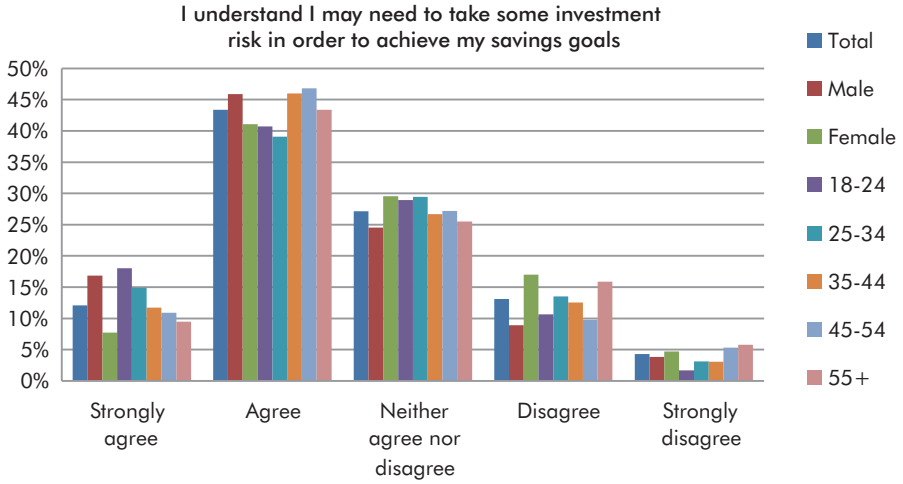
2.3 Investment risk: understanding and managing risk in investment fund returns

Having invited respondents to consider risk from a savings dimension, we then invited them to consider risk from an investment dimension. If someone wants to meet their savings goals on time, they need to choose an appropriate investment vehicle for their savings. **Most investment vehicles involve some risk: the value of the investment when it is needed to meet a savings goal could be lower than was anticipated at the time the investment was first made. We call this risk 'investment risk'. Savers therefore face an unavoidable trade-off. They can put their savings into low return – low risk investment vehicles, but then have to save more to meet their savings goals on time. Alternatively, they can invest in higher risk investments whose higher expected returns mean that they (might) need to save less to meet their savings goals on time.** The next section of the survey asked respondents to consider investment risk and the trade-offs that need to be made when dealing with investment risk.

Recognising the need to take investment risk

Chart 2.8 shows that just over **half (55%) of respondents understand that they need to take investment risk in order to achieve their savings goals.** Fewer than one in five (17%) disagree with the proposition.

Chart 2.8: The need to take investment risk



Understanding and experience of investing

Despite the finding in Chart 2.8 about accepting the need to take investment risk, Chart 2.9 shows that around **two fifths (38%) of respondents do not find investment matters easy to understand**, women and older people more than men and younger people. Furthermore, Chart 2.10 shows that more than **two-thirds of respondents (69%) have little direct experience of investing in stocks and shares**, women more than men, young people more than old people; although, to some extent this might mask indirect holdings through ISAs or pension schemes.

These two charts show **the extent of the investment challenge that many savers need to overcome if they are to meet their long-term savings goals in particular.**

Chart 2.9: Understanding investment matters

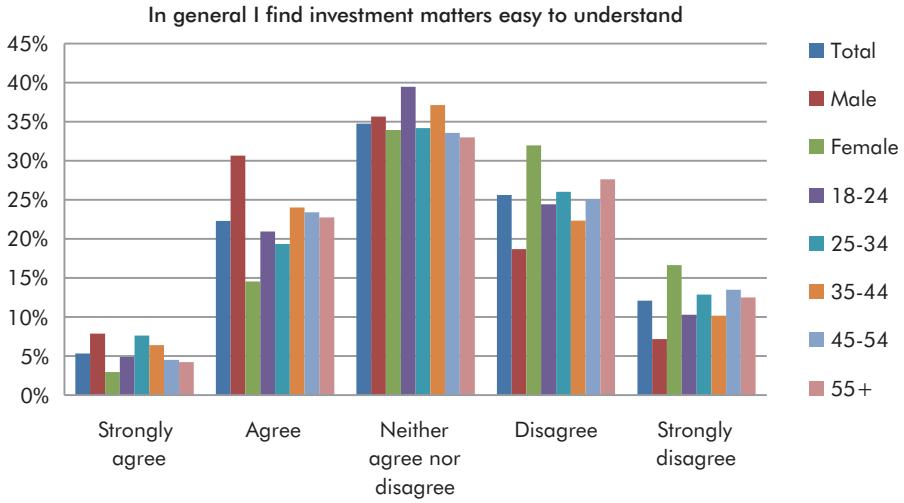
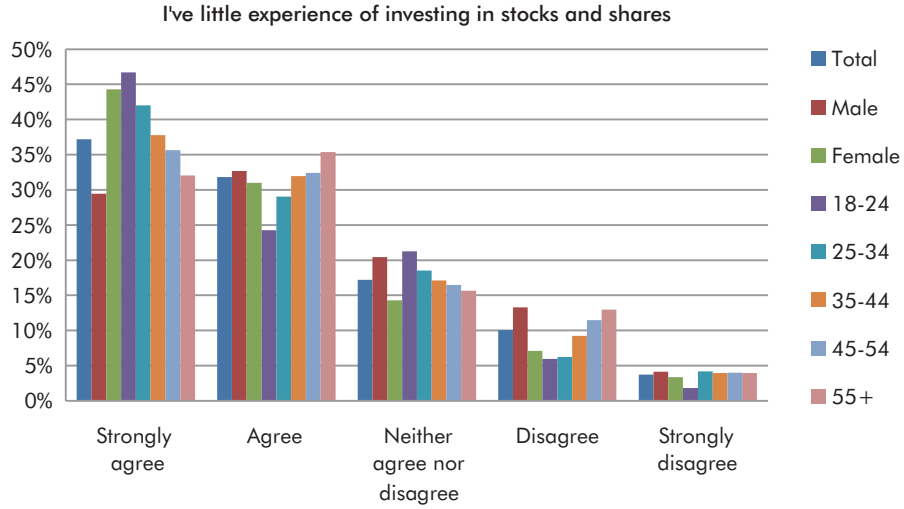


Chart 2.10: Experience of stock market investing



Investment trade-offs

Our next set of questions invited respondents to consider the key investment trade-offs that need to be made.

Chart 2.11 shows that a **majority of respondents (56%) prefer to hold their short-term savings funds in liquid accounts – such as bank and building society accounts – and are prepared to accept a lower return in exchange for this liquidity**. This is not surprising.

More surprising are the large numbers prepared to sacrifice real (inflation-adjusted) returns in order to avoid investing in assets with volatile returns which nevertheless have positive real returns in the long run. Chart 2.12 shows that almost half (48%) of respondents feel this way. Women, in particular are strongly of this view as are those in the 55+ age group who are the most likely to rely on a steady income (both 54%). Only 19% of respondents do not feel this way. These findings might be influenced by the fact that we have not experienced double digit inflation for many decades and the erosion of purchasing power when the inflation rate is low is not as obvious.

Chart 2.11: Liquidity versus return

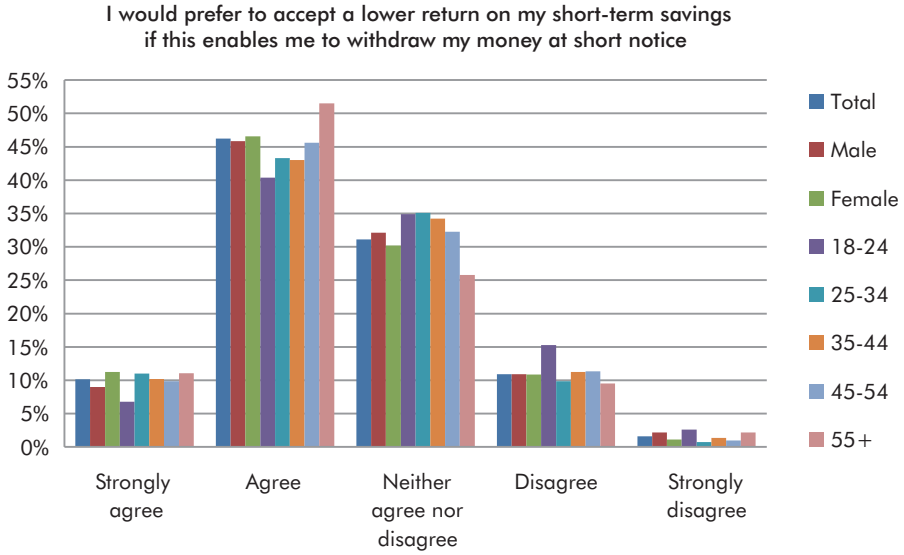


Chart 2.12: Investment risk versus inflation

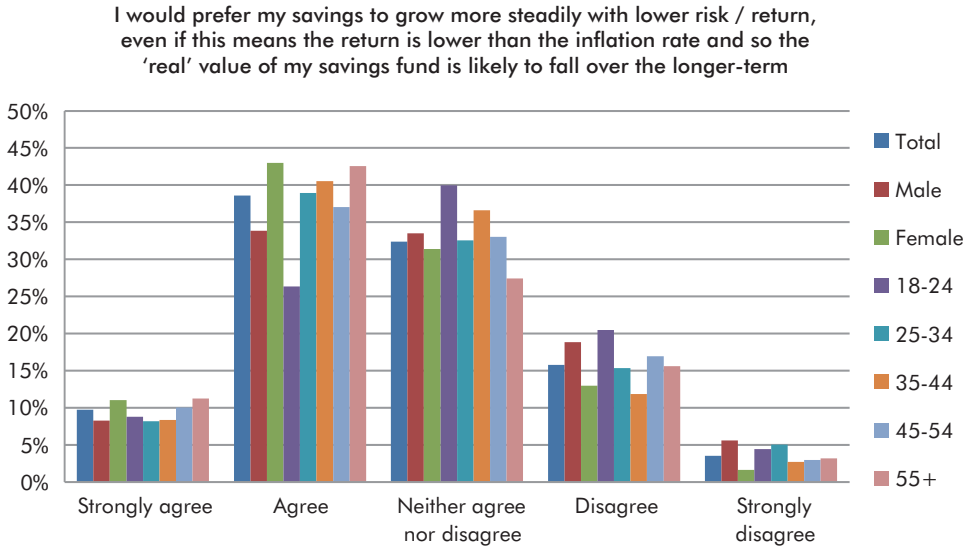


Chart 2.13 shows that nearly **two-thirds (62%) of respondents agree with the statement: 'Where my savings fund will be used to provide an income (e.g., in retirement), I would prefer to ensure this income level is stable, even if this means accepting a lower level of capital growth'**. This view was most frequently expressed by women (66%) and, unsurprisingly, older people aged 55+ (69%).

Chart 2.13: Income versus capital growth

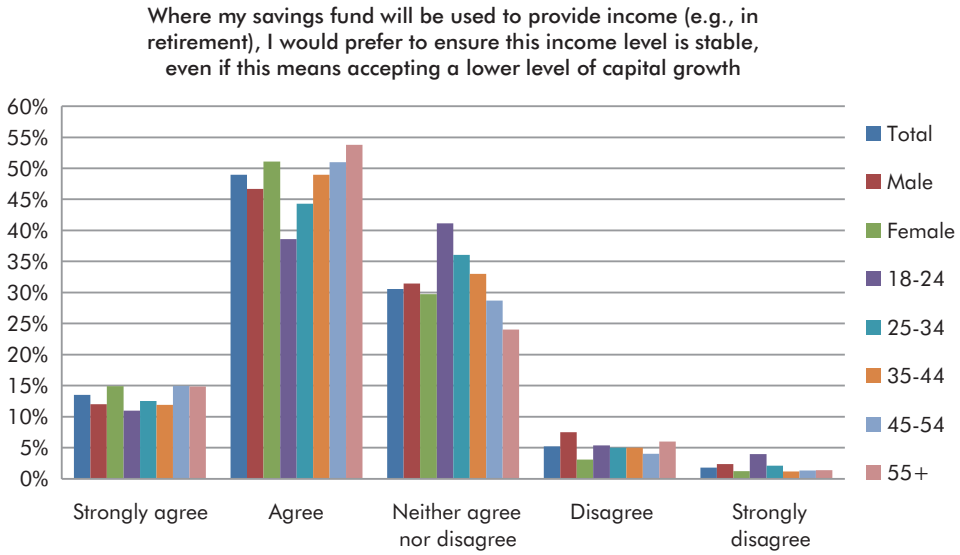
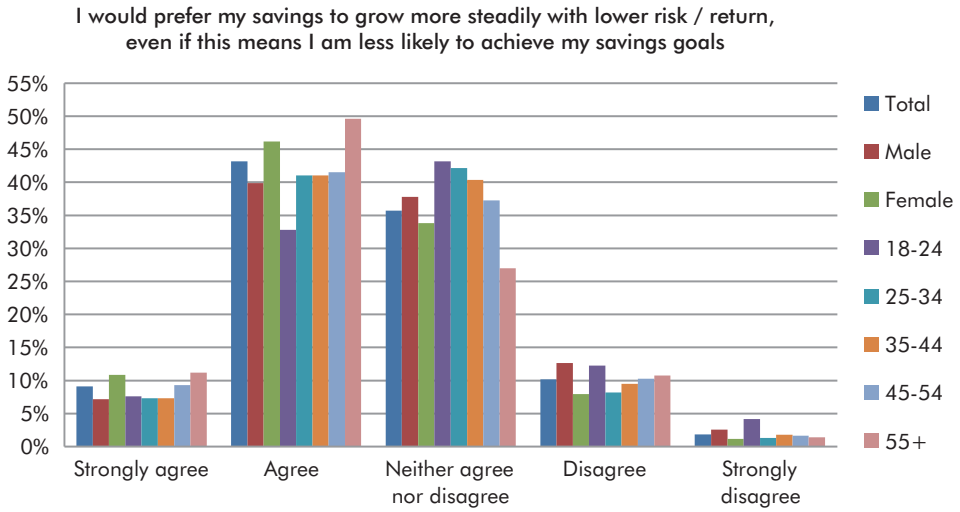


Chart 2.14: Investment risk versus shortfall



From earlier items in the survey, we know that around half (46%) of the respondents have savings goals and are generally unwilling to make inter-temporal trade-offs (i.e., borrow from different mental accounts). So our last question in this section of the survey asked people if they are willing to take investment risk to reduce the possibility of falling short of their savings target. Chart 2.14 shows that **just over half (52%) of respondents would prefer to miss their savings goals than take investment risk. This is especially prominent amongst women (57%) and older people aged 55+ (61%). Only 12% disagreed with this proposition.**

Overall, the results from this section of the survey provide quantitative evidence of **a reluctance by a majority of respondents to take the investment risk that is needed to achieve (at least) their long-term savings goals. This has been called a strategy of 'reckless conservatism'. The only alternative if savings goals are to be achieved on time is to reduce spending and save more. Yet this option is selected as a first preference by just 30% of respondents in respect of short-term goals** (Chart 2.6) **and by 33% of respondents in respect of long-term goals** (Chart 2.7). **This leaves an interesting challenge about how to square this circle.**

2.4 Quantifying the size of savings and investment risks savers are willing and able to take

The next section of the survey invited our sample to put a quantitative measure on the different aspects of risk that we have considered in the earlier part of the survey. In the event of a savings shortfall, we asked what the limit would be to the shortfall that they would be willing and able to tolerate: the questions we asked deliberately combined willingness and ability to accept a 'loss' if we treat a shortfall as a loss from a target. We then asked respondents to quantify the losses they would be willing to tolerate on the investment side. Again, we acknowledge that these questions could be challenging even for savers who are familiar with investment risk. Further, responses could be conditioned by recent experience of losses (e.g., Malmendier and Nagel (2011)).

Quantifying savings risk

We first asked respondents to consider the following: 'There is a chance that your savings fund doesn't grow as much as you would like and is unable to achieve all your **short-term** savings goals. In relation to your specific **short-term** savings goals (e.g., holidays, mortgage deposit etc), how much of a shortfall from these goals would you be willing and able to accept?'

Chart 2.15: Quantifying short-term savings risk

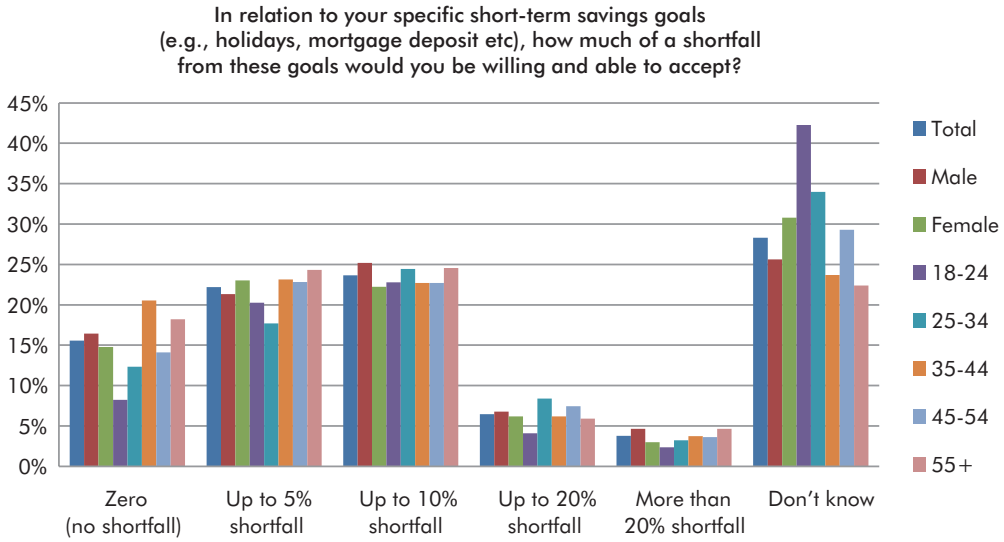


Chart 2.15 shows that **16% of respondents are reluctant to accept any shortfall on their short-term savings goals. A little over one fifth (22%) are willing to accept up to a 5% shortfall, while almost a quarter (24%) are willing to accept up to a 10% shortfall. Only one in ten (10%) are willing to accept more than a 10% shortfall. This implies that four savers out of ten can be regarded as being strongly committed to meeting their short-term savings goals (i.e., those willing to accept a shortfall of no more than 5%).** There is little variation by age and gender, with the exception of the 18-24 age category who were most likely to state 'don't know' (42%).

Next, we asked respondents to consider the following: 'There is a chance that your savings fund doesn't grow as much as you would like and is unable to achieve all your **long-term** savings goals. In relation to your specific **long-term** savings goals (e.g., retirement, education fees etc.), how much of a shortfall from these goals would you be willing and able to accept?'

Chart 2.16: Quantifying long-term savings risk

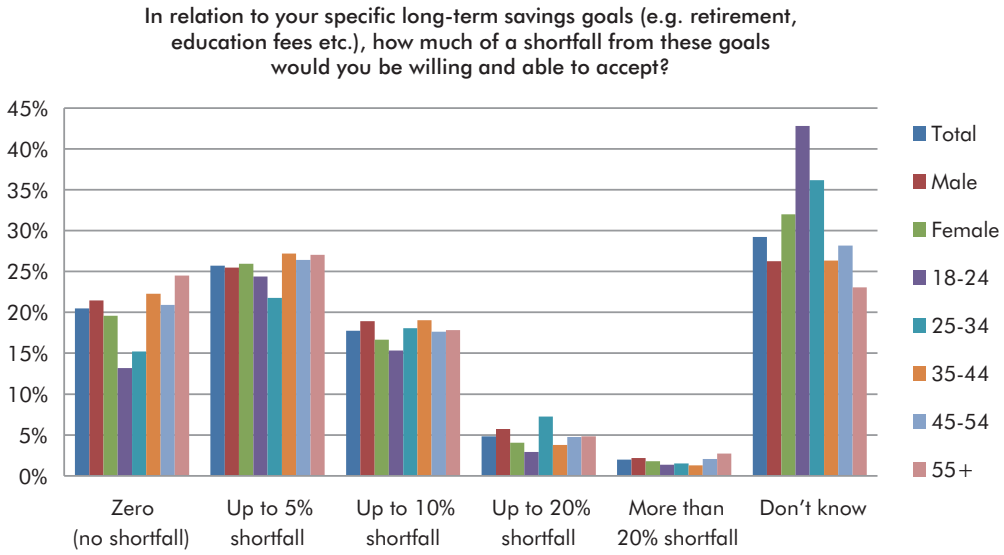
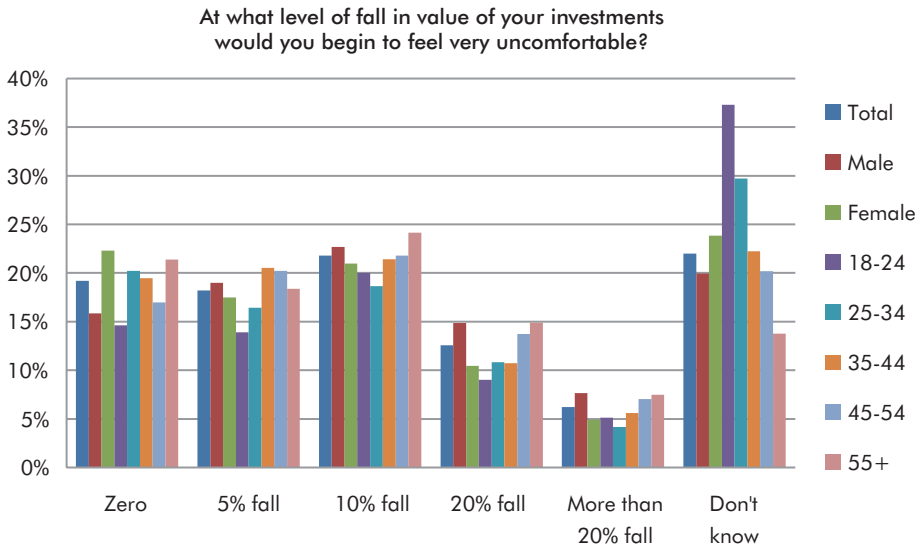


Chart 2.16 shows that **20% of respondents are reluctant to accept any shortfall on their long-term savings goals. More than one quarter (26%) are willing to accept up to a 5% shortfall, while another 18% are willing to accept up to a 10% shortfall. Only 7% are willing to accept a savings shortfall greater than 10%. This implies that 46% of savers claim to be strongly committed to meeting their long-term savings goals (which is higher than for short-term savings goals).**

Quantifying investment risk

When it comes to quantifying investment risk, nearly one in five (19%) of our respondents would feel very uncomfortable accepting any reduction in the value of their investments (Chart 2.17). **Similar percentages would be very uncomfortable with a 5% fall and a 10% fall (18% and 22%, respectively). In other words, 59% of respondents would be very uncomfortable with falls of up to 10%. Only 6% of investors would be prepared to tolerate investment losses of more than 20%, the kind of losses that are not uncommon in stock market investments.** We observe little variation in responses across age groups. But 22% of respondents were unable to answer the question, with this response being most frequent for the youngest age cohort (37%).

Chart 2.17: Quantifying investment risk



Attitude to taking investment risk

The final part of the survey invited respondents to answer a series of questions which allowed us to assess their attitude to risk. The questions came from the Attitude to Risk Questionnaire (ATRQ) designed by A2Risk. They allowed us to analyse the data in order to allocate respondents to one of five investment risk categories: cautious, moderately cautious, balanced, moderately adventurous, and adventurous. We could then ascertain whether respondents' answers to some of our previous questions are linked to their attitude to risk. We report here on three issues.

First, we wanted to determine whether the way that respondents quantified the risk to short-term savings goals (i.e., the amount of short-term savings risk they were willing and able to take, see Chart 2.15) is influenced by their attitude to risk. The results, shown in Chart 2.18, are broadly similar for each risk category (if we disregard the 'don't knows'): the majority of respondents in each risk category would not be willing or able to accept a short-term savings shortfall of more than 10%. **There appears to be no relationship between short-term savings risk and attitude to risk.**

Second, we wanted to find out whether this was also true for long-term savings risk (Chart 2.16). The results, shown in Chart 2.19, indicate that again there is **no relationship between long-term savings risk attitude to risk.** For example, adventurous investors are no more willing in aggregate to accept a shortfall of more than 20% in their long-term savings goals than cautious investors.

This suggests that people think about risk on the savings side completely independently of how they think about risk on the investment side. In other words, they put the different dimensions of risk into different mental boxes, rather than thinking about risk in an integrated holistic way.

Chart 2.18: Quantifying short-term savings risk sorted by attitude to risk

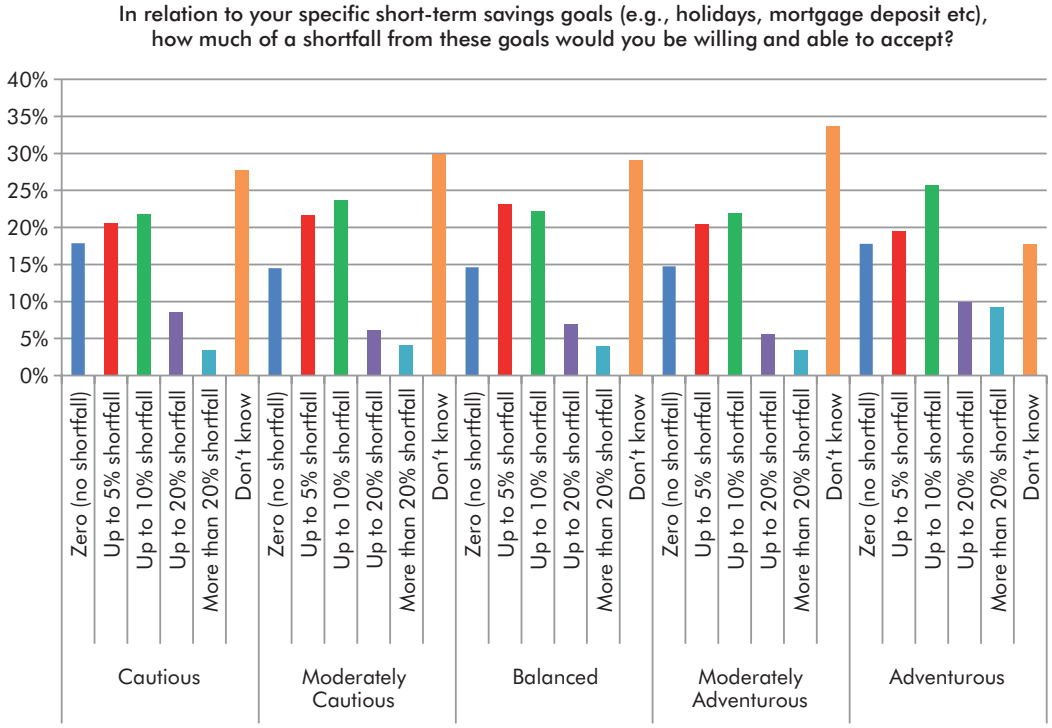
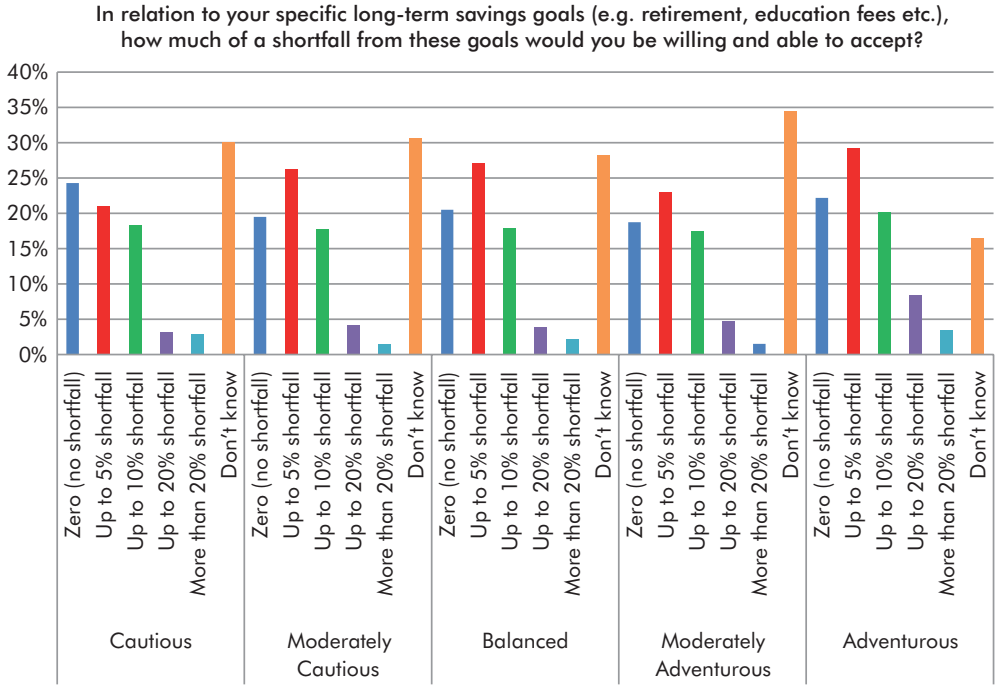


Chart 2.19: Quantifying long-term savings risk sorted by attitude to risk



Third, we ask how the way that respondents quantify investment risk (Chart 2.17) is influenced by their attitude to risk. The results are shown in Chart 2.20. **In general, the size of the investment loss before respondents begin to feel very uncomfortable does increase with attitude to risk. In the case of adventurous investors, 27% would be prepared to accept a loss of 20%, while 22% would be prepared to accept a loss of more than 20%. These figures fall to 10% and 3%, respectively, for cautious investors.** There are other features which stand out:

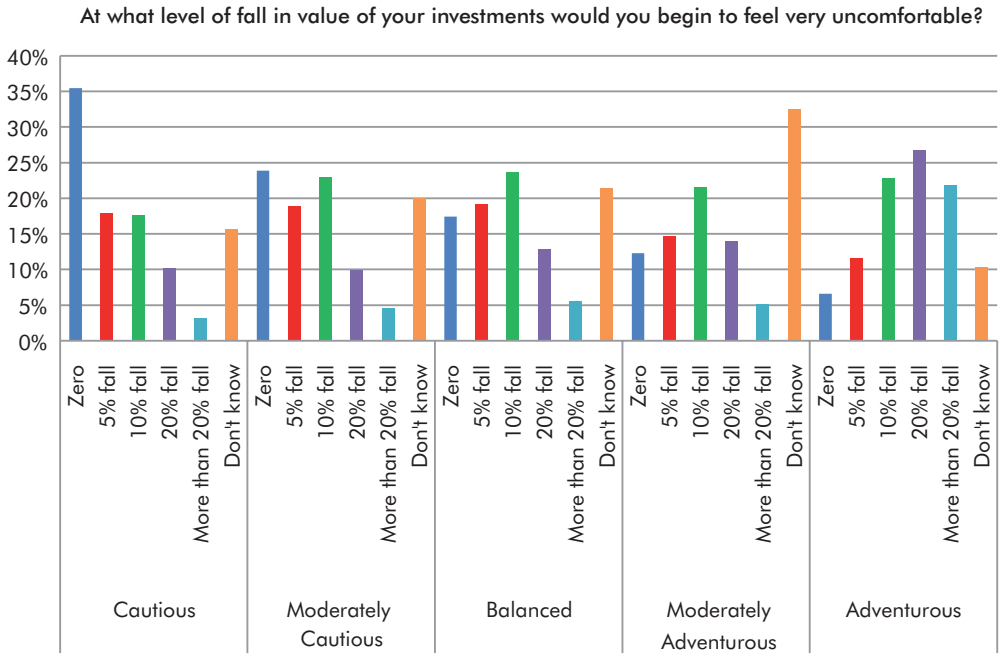
- A larger proportion (35%) of individuals who have a cautious attitude to risk would be uncomfortable with sustaining any loss compared with those with an adventurous attitude (7%).

- Almost 1 in 4 adventurous and moderately adventurous individuals would be 'very uncomfortable' with a 10% loss.

- 1 in 3 moderately adventurous investors do not know the point at which they would feel 'very uncomfortable'. The figure is higher in the other risk categories.

- Around 60% of balanced investors would feel 'very uncomfortable with losses of up to 10%. Yet many investors in this group may have selected 'balanced managed' funds. Typically, these have equity asset allocations of 50 - 70%, and could fall by significantly more than 10% in 'bad' years for investment markets.

Chart 2.20: Quantifying investment risk sorted by attitude to risk



Finally, Charts 2.21 and 2.22 show attitude to risk sorted by age and gender, respectively. The three middle risk categories in Chart 2.21 clearly indicate **that investment caution increases with age, although in the extreme risk bands, there is no relationship with age. Further, women tend to be more cautious than men when it comes to investment risk taking.**

Chart 2.21: Attitude to risk by age

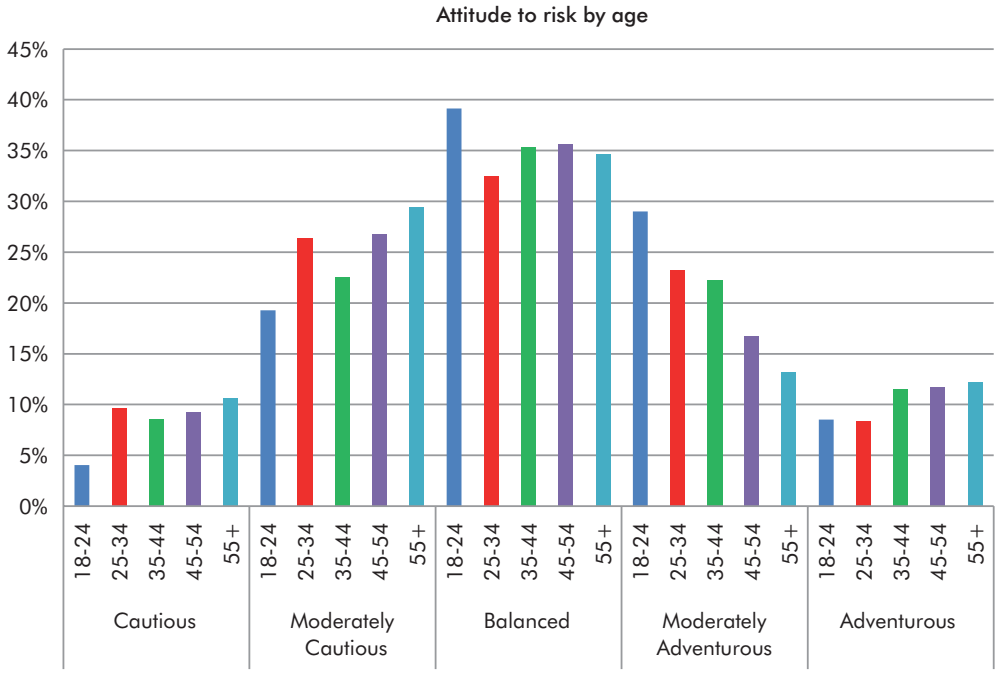
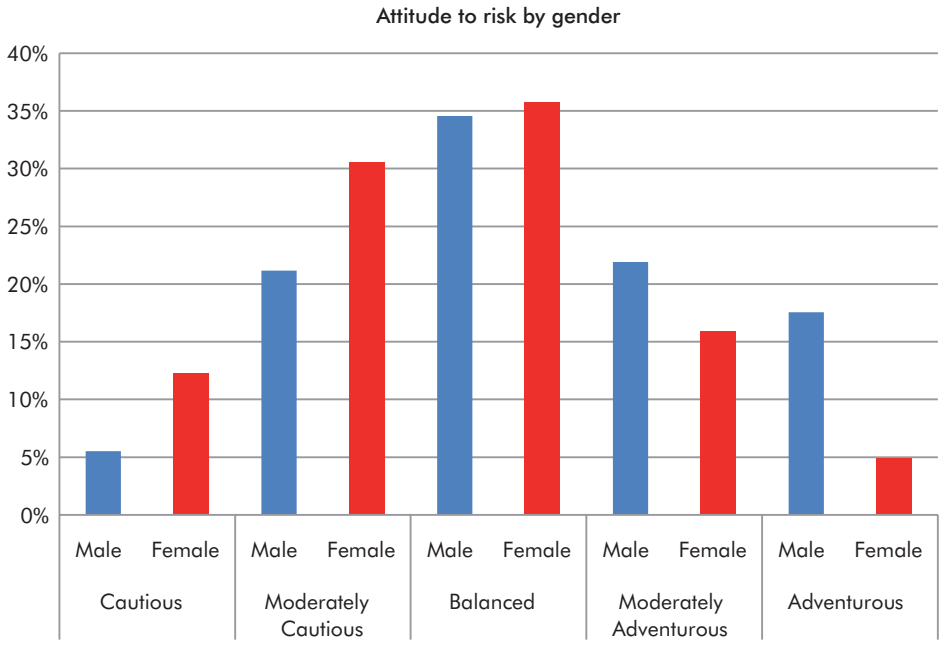


Chart 2.22: Attitude to risk by gender



2.5 A closer look at individuals with strong savings goals: 'super-savers' and 'risk-takers'

Our analysis so far has looked at our sample of respondents as a whole. In this section, we dig deeper into our data to examine the responses of the sub-sample of respondents who report having strong savings goals. This is crucial to the understanding of risk in terms of shortfalls: if we have no goals, how can we measure shortfall? We then identify two sub-groups of those with strong savings goals: those who have a preference to save more rather than take more investment risk, and those who prefer to take more investment risk rather than save more. We call these two sub-groups the 'super-savers' and the 'risk-takers', respectively.

'Super-savers'

1783 individuals claim to have strong savings goals, based on agreeing or strongly agreeing with the statement 'When I save, I usually consider what I am saving for in terms of specific savings goals'. This represents 43% of the sample.

Of this group, we classify 1156 as 'super-savers', since they agree or strongly agree with the statement 'In order to achieve my savings goals, I would prefer to pay more into my savings fund, rather than hold higher risk / return investments (i.e., investments that have higher anticipated returns but could also go down in value)'. This represents 28% of the total sample.

Chart 2.23 presents their responses to the question: 'The value of investments typically go up and down according to movements in financial markets. At what level of fall in value of your investments would you begin to feel very uncomfortable? (If you do not have any investments, please give an answer based on what you think would be the case if you did)'.

This group is marginally **more loss averse than the population as a whole (see Chart 2.17): 22% would feel very uncomfortable with accepting any investment loss (compared with 19% for the whole sample), while 13% would feel very uncomfortable with losses of 20% (the same as the whole sample)**.

We now narrow down the sample to those in the key age range to benefit from long-term savings and with the resources to do so. This covers those aged 25-44 with savings of £20,000 to £100,000. We call this group 'affluent super-savers'. It is a much smaller group: 48 individuals, or just over 1% of the total sample. This group has strong savings goals, a preference to save more rather than take investment risk, and has also amassed significant savings to date.

Chart 2.24 shows that **although 21% of 'affluent super-savers' are unwilling to accept any fall in the value of their savings (similar to the 22% for 'super-savers'), a higher percentage (17% compared with 13%) are prepared to invest in assets that could involve losses of up to 20%. This provides evidence that some of those committed savers who prefer to save more rather than hold riskier assets are nevertheless prepared to accept that volatility will affect the value of their investment portfolio if they want to achieve returns above the risk-free rate. An even bigger percentage (23%) would be prepared to accept losses of up to 10%. It could be the case that the kind of people who have thought ahead and established firm savings goals are also the kind of people who are willing to understand risk and accept that it is an inevitable feature of the long-term investment landscape.**

Chart 2.23: Quantifying investment risk for 'super-savers'

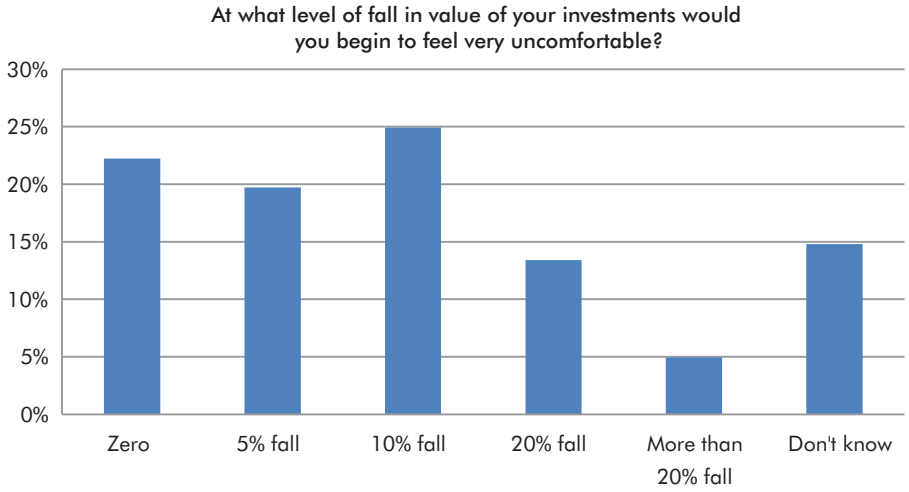
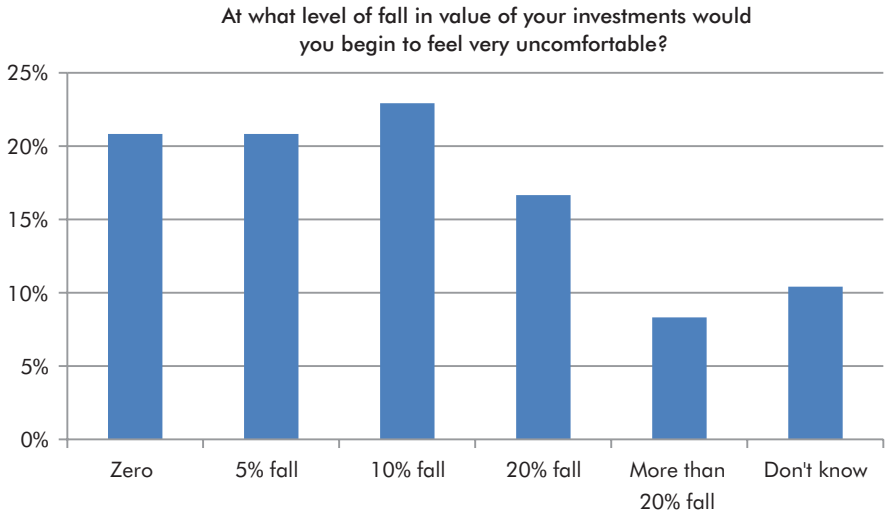


Chart 2.24: Quantifying investment risk for 'affluent super-savers'

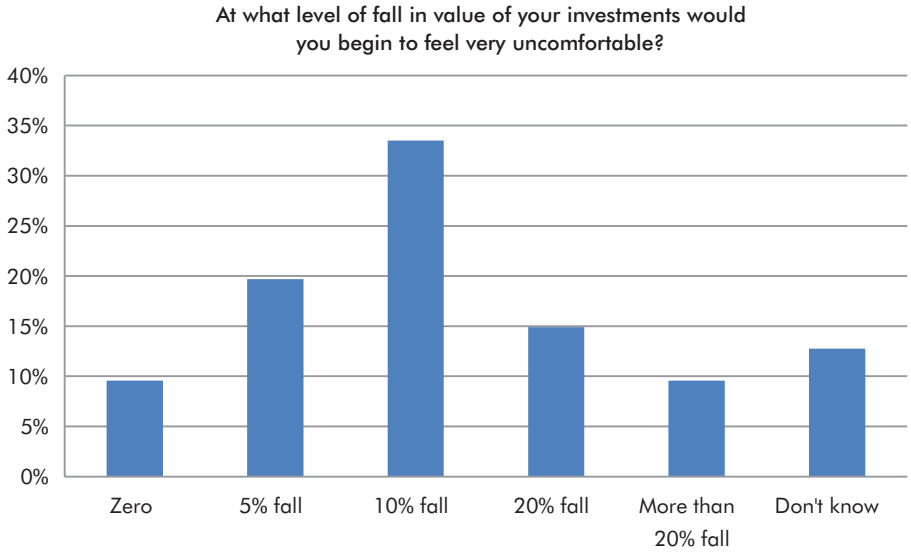


'Risk-takers'

We can now identify the sub-set of respondents from the 1156 individuals with strong savings goals who also prefer to take more risk and label them 'risk-takers'. This is a much smaller group (188 individuals or 3.5% of the total sample) based on agreement or strong agreement with the statement 'I'd rather take my chances with higher risk investments than increase the amount I'm saving'. This group is much smaller than the 28% of the total sample that we classify as 'super-savers'.

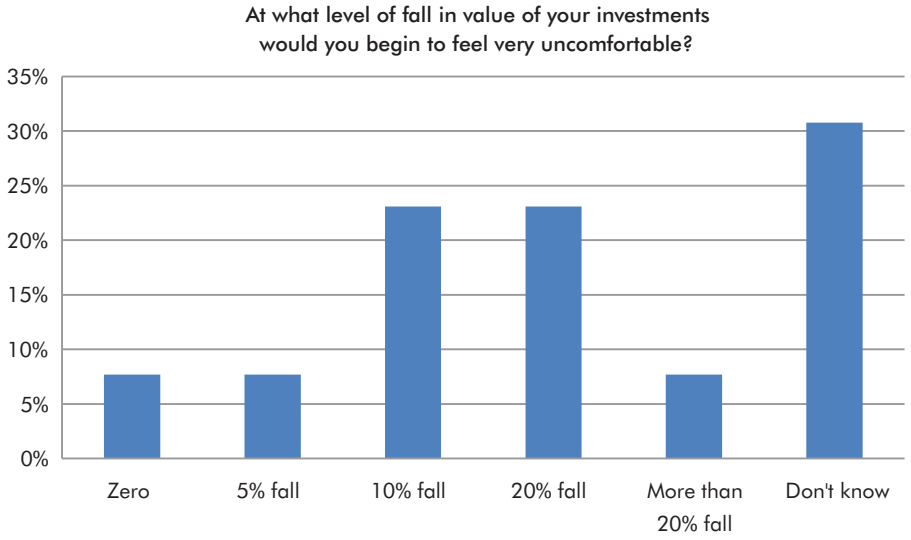
Are they actually prepared to take more risk? Chart 2.25 provides some evidence that they are. Only 10% would be reluctant to take a loss of more than 20%, despite claiming to be 'risk-takers'. But **34% would be prepared to accept investment losses up to 10%, and 15% would be willing to take losses up to 20%.**

Chart 2.25: Quantifying investment risk for 'risk-takers'



The responses of 'affluent risk-takers' aged 25-44 with savings of £20,000 to £100,000 are shown in Chart 2.26. There are just 13 individuals (0.3% of the total population) in this group so it is questionable how representative this group is of the population of 'affluent risk-takers'. Given this caveat, **23% would be willing to accept losses of up to 10% and another 23% would be prepared to lose up to 20%.**

Chart 2.26: Quantifying investment risk for 'affluent risk-takers'



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Appendix A: Survey methodology

Our sample was collected from the YouGov Omnibus service (yougov.co.uk) self-administered online survey responses from over 2000 GB adults, at the same time as we re-normed the responses to the A2Risk ATRQ. YouGov contacted members from its panel of over 400,000 individuals in order to create a sample which appropriately represents the GB adult population based on criteria including age, gender, region and social grade. Recognising the need to examine sub-samples of the data collected, we asked YouGov to issue the questionnaire in two waves between 29 November and 2 December 2013, resulting in a sample of 4154 of respondents. Summary statistics are presented in Tables A1 and A2. The figures have been weighted and are representative of all GB adults (aged 18+).
All figures, unless otherwise stated, are from YouGov Plc.

Table A1: Gender/age summary

Total	Gender		Age				
	Male	Female	18-24	25-34	35-44	45-54	55+
4154	2008	2146	493	603	680	959	1419
100%	48%	52%	12%	15%	16%	23%	34%

Table A2: ATRQ summary

	Count	Percentage
Cautious	375	9%
Moderately cautious	1082	26%
Balanced	1462	35%
Moderately adventurous	780	19%
Adventurous	455	11%
Total	4154	100%

The survey questions followed a logical sequence, commencing with the ATRQ before moving on to the following sections in turn: savings habits and goals, savings risk, investment trade-offs, quantifying risk and finally additional demographic information. The technique of working from simple general items towards more specific or complex items is sometimes known as the funnel technique. Questions aimed at quantifying investment risk, which we acknowledge are potentially challenging for respondents, were left towards to the end: as were additional demographic questions such as amount of savings and level of income. The idea is that respondents take a journey through the decision process, so it did not make sense to randomise the question order.

YouGov provided expert assistance throughout the research design process, ensuring that the survey was as effective as possible, for example by using everyday language with clear definitions.

As far as possible, we used simple statements on a response scale (known as a Likert Scale) as follows: Strongly agree/Agree/Neither agree nor disagree/Disagree/Strongly disagree. Additionally, several survey items asked respondents to state a preference order (for example, from four choices in the event of a savings shortfall), to choose from a range of percentages (for example, the percentage investment loss that would make respondents feel very uncomfortable with in adverse circumstances) and to select an appropriate category (such as amount of savings).

Appendix B: The A2Risk attitude to risk questionnaire

The attitude to risk questionnaire (ATRQ) is designed to help the adviser assess his or her client's attitude to risk. It is short a questionnaire that captures key aspects of the client's attitude to risk and provides an attitude to risk score and category that summarises the client's attitude to risk. This provides a structured means of having a dialogue between the adviser and client about how much risk the client is willing to take. Importantly, the ATRQ is not a substitute for that conversation, but a tool that provides a starting point for the discussion. The ATRQ does not allow the adviser to assess the client's capacity to bear investment risk; this needs to be assessed separately. The ATRQ is used by a number of leading financial institutions.

A2Risk is a specialist research company dedicated to providing tools to help financial services firms assess the risk tolerance of their clients, and hence better meet their investment needs. A2Risk works with investment firms and intermediaries to incorporate risk tolerance assessment into the financial advice process. The ATRQ was developed by Dr Alistair Byrne and Professor David Blake in 2006.

The A2Risk ATRQ methodology

The ATRQ is a short questionnaire comprising 12 plain English statements which usually takes less than six minutes to complete. It captures key aspects of the client's attitude to risk (investment knowledge, investment preferences, overall comfort with risk, and regret) in a numerical score which ranks each individual's risk attitude relative to the GB adult population. This ranking is then mapped to one of five investment risk categories: cautious, moderately cautious, balanced, moderately adventurous, and adventurous. For our research, the questions are relevant to both savings and investment risk and allow us to ascertain whether respondents' answers to some of our previous questions are linked to their attitude to risk.

In the 2013 norm group, 73% of respondents agreed or strongly agreed that the 12 ATRQ questions were easy to understand, while only 8% disagreed or strongly disagreed. The reliability of the questionnaire, as measured by Cronbach's Alpha, is 79% which is in the 'good' range. Both of these outcomes are in line with previous iterations of the ATRQ and give us confidence that the instrument is effective.

Appendix C: Survey highlights

1 Around half of the respondents are able to save on a regular basis (48%), have always been in the habit of saving (53%), and tend to think about savings in terms of specific goals (46%).

2 Most respondents prioritised their savings goals as follows: first a precautionary or rainy-day fund (45%), second a long-term savings fund (29%), and third a short-term savings fund (26%). Only 29% of the sample put long-term savings goals as their first priority.

3 'Savings risk' is the risk of a shortfall in savings goals. In terms of dealing with a short-term shortfall, we find that 37% of respondents prefer accepting a lower outcome as their first choice, 30% prefer reducing spending and saving more, 26% prefer to wait longer, and only 7% prefer to borrow from their long-term fund. In terms of dealing with a long-term shortfall, we find that 33% prefer reducing spending and saving more as their first choice, 29% of respondents prefer accepting a lower outcome, 26% prefer to wait longer, and only 12% prefer to borrow from their short-term fund. This provides support for the idea above that people have separate 'mental accounts' for their different savings goals and that these accounts are not fungible.

4 Most investment vehicles involve 'investment risk': the value of an investment when it is needed to meet a savings goal could be lower than was anticipated at the time the investment was first made. Investment vehicles with no investment risk generally have very low returns. More than half (55%) of the respondents understand that they need to take some investment risk in order to achieve their savings goals. Nevertheless, 38% do not find investment matters easy to understand and most have little direct experience of investing in stocks and shares (69%).

5 Most respondents prefer to hold their short-term savings funds in liquid accounts – such as bank and building society accounts – and are prepared to accept a lower return in exchange for this liquidity.

6 Almost half (48%) of respondents are prepared to sacrifice real (inflation-adjusted) returns in order to avoid investing in assets with volatile returns which nevertheless have positive real returns in the long run. Only 19% of respondents are not prepared to invest in assets with negative real returns. Nearly two-thirds (62%) of respondents prefer investments that provide a stable level of income, even if this meant accepting a lower level of capital growth. Just over half (52%) of respondents would prefer to miss their savings goals than take investment risk. Only 12% would not be prepared to do this.

7 Overall, our results provide qualitative evidence of a reluctance by a majority of respondents to take the investment risk that is needed to achieve (at least) their long-term savings goals. This has been called a strategy of 'reckless conservatism'. The only alternative if savings goals are to be achieved on time is to reduce spending and save more. Yet this option is preferred by just 30% of respondents.

8 In terms of quantifying savings risk, 38-46% of savers can be regarded as being strongly committed to meeting their savings goals (in terms of being willing to accept a shortfall of no more than 5%).

9 In terms of quantifying investment risk, nearly 19% of our respondents would feel very uncomfortable accepting any reduction in the value of their investments. Similar percentages would be very uncomfortable with a 5% fall and a 10% fall (18% and 22%, respectively). In other words, 59% of respondents would be very uncomfortable with falls of up to 10%. Only 6% of investors would be prepared to tolerate investment losses of more than 20%, the kind of losses that are not uncommon in stock market investments.

10 We find that there appears to be no relationship between either short-term or long-term savings risk and attitude to risk. This suggests that people think about risk on the savings side completely independently of how they think about risk on the investment side. In other words, they put the different dimensions of risk into different mental boxes, rather than thinking about risk in an integrated holistic way.

11 In general, our analysis shows that the size of the investment loss before respondents begin to feel very uncomfortable does increase with attitude to risk. In the case of adventurous investors, 27% would be prepared to accept a loss of 20%, while 22% would be prepared to accept a loss of more than 20%. These figures fall to 10% and 3%, respectively, for cautious investors.

12 Finally, we find that generally investment caution increases with age and that women tend to be more cautious than men when it comes to investment risk taking.

Sponsors

Santander Asset Management manages over £120bn across eleven countries. In the UK, we have over half a million customers and over £21bn in assets under management. We benefit from the resources of Banco Santander, one of the world's leading banks and the largest in the Eurozone. Its renowned brand, strong balance sheet and prudent risk management approach, combined with the expertise of leading private equity firms, Warburg Pincus and General Atlantic, offer peace of mind to our customers.

The Santander Atlas Portfolios, launched in November 2013, have been designed post RDR to offer an innovative, cost effective solution to meet clients' investment needs, whilst fitting seamlessly into advisers' business models. Managed by our Global Multi Asset Solutions team, led by Tom Caddick and Toby Vaughan, they are risk-targeted, actively managed and unfettered multi manager funds, offering highly competitive fees and charges, plus a capped ongoing charge. The range has been independently benchmarked against funds across the UK by Defaqto and has received a 5 Diamond Rating for providing a very well balanced proposition across features and charges.

We have partnered with Moody's Analytics to provide stochastic modelling of the potential outcomes of the portfolios. We believe that these 'potential client outcomes' will assist advisers in positioning the relationship between risks and rewards when discussing Santander Atlas Portfolios with their clients, whilst helping potential investors to make more informed investment decisions.

Moody's Analytics provide state-of-the-art modelling tools to help retail advisory clients identify, quantify and manage the financial risk in long-term savings products, investment portfolios and life and pensions balance sheets.

Our core risk modelling capability is packaged into a wide range of services used by leading retail market clients across the insurance and advisory sectors. We also work with system partners to integrate our modelling technology into point-of-sale, transaction and advice platforms.

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