

Research Note

18th June 2020

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Maura Feddersen, Cameron Gilchrist, Lucy Hayes,
Timothy L. Mullett, Helena Robertson, Laura Smart
Neil Stewart, Jonathan Titley



FCA research notes in financial regulation

The FCA research notes

The FCA is committed to encouraging debate on all aspects of financial regulation and to creating rigorous evidence to support its decision-making. To facilitate this, we publish a series of Research Notes, extending across economics and other disciplines.

The main factor in accepting papers is that they should make substantial contributions to knowledge and understanding of financial regulation. If you want to contribute to this series or comment on these papers, please contact Kevin James (kevin.james@fca.org.uk) or Karen Croxson (karen.croxson@fca.org.uk)

Disclaimer

Research notes contribute to the work of the FCA by providing rigorous research results and stimulating debate. While they may not necessarily represent the position of the FCA, they are one source of evidence that the FCA may use while discharging its functions and to inform its views. The FCA endeavours to ensure that research outputs are correct, through checks including independent referee reports, but the nature of such research and choice of research methods is a matter for the authors using their expert judgement. To the extent that research notes contain any errors or omissions, they should be attributed to the individual authors, rather than to the FCA.

Authors

Maura Feddersen, Cameron Gilchrist, Lucy Hayes, Helena Robertson, Laura Smart and Jonathan Titley (Financial Conduct Authority). At the time of research Maura Feddersen worked at the FCA, she now works as part of Swiss Re.

Timothy L. Mullett and Neil Stewart (Warwick Business School)

Acknowledgements

We would like to thank Andrew Anderson, Firuza Khan, Anna Trendl, Adam Wreglesworth for their advice and input.

All our publications are available to download from www.fca.org.uk. If you would like to receive this paper in an alternative format, please call 020 7066 9644 or email publications_graphics@fca.org.uk or write to Editorial and Digital Department, Financial Conduct Authority, 12 Endeavour Square, London E20 1JN.

Contents

1	Executive summary	4
	Method	5
	Results	6
	Discussion	6
2	Introduction	7
	Market context	7
	Evidence for risk warnings	8
	Approach	9
3	Experiment 1: risk preferences and understanding	10
	Method	10
	Participants	10
	Materials	10
	Set up	11
	Results	11
	Discussion	12
4	Experiment 2: risk warnings	14
	Method	14
	Participants	14
	Materials	14
	Set up	15
	Results	16
	Discussion	18
5	Conclusions	20
	References	21

Abstract

In the current low or even zero interest environment, there is evidence that retail investors, attracted by very high advertised rates of return, may be investing in products such as mini-bonds without fully assessing the associated investment risk. To explore this concern, we tested consumer choice behaviour and comprehension of investment risk in the context of financial promotions for high risk investments (HRI) with online experiments that we designed to provide actionable insights for regulatory policy.

In online laboratory experiments, we tested whether consumers prefer certain types of risky products to others, and how these preferences change with advertised rates of return. We then measured the relative effect of a new risk warning that is currently required on all marketing of mini-bonds as part of temporary rules set by the UK's Financial Conduct Authority, on consumer choices and understanding of risk.

Our results show that (1) the new risk warning improves investors' comprehension of product risk and (2) investors prefer speculative mini-bonds to Stocks and Share ISAs. Whilst this may be a legitimate product preference, it could also suggest they (wrongly) perceive them to be less risky given that for all other choices they choose the safer investment option. Our results provide important evidence-based understanding of how consumers choose amongst high risk investment (HRI) products. These findings also support an FCA proposal to make the use of the risk warning, temporarily mandated since January 2020, a permanent feature and contributes to the literature on the effectiveness of risk warnings.

1 Executive summary

Mini-bonds, a type of high risk investment (HRI) product, have attracted an increasing number of investors in recent years, particularly online. Eye-catching online advertisements typically induce retail consumers to invest with promises of high returns while downplaying the risk of losing money, including suggesting that products are more secure or protected than they are.

These investors are at risk of losing their money should the mini-bond issuer fail, as has been the case in several recent high-profile firm failures. The consumer harm from the collapse in January 2019 of London Capital and Finance (LCF), an issuer of mini-bonds used to finance loans to corporate borrowers, was estimated at £237.2m for 11,625 investors (FCA, 2019). Similarly, Blackmore Bond, another issuer of mini-bonds was placed into administration in April 2020. Blackmore Bond had issued mini-bonds with a total value of £45m.

Our initial review of internal FCA evidence suggests there are several characteristics common to retail investors of speculative mini-bonds. Some have recently come into a cash lump sum (for example due to accessing their pension, or redundancy), many are looking for a rate of return higher than can be earned on savings deposits and, a significant number appear to underestimate the associated investment risk. The average amount invested (and at risk should an issuer fail and little or no money is repaid), is estimated at over £22,000 per investor (FCA, 2019). This means that interventions such as those that improve comprehension of investment risk pre-purchase, have the potential to significantly and positively affect consumers' financial situations.

To directly mitigate the identified consumer harm in this market from consumers investing in products that are unsuitable for them, the UK regulator, the Financial Conduct Authority (FCA), introduced a Temporary Product Intervention (TPI), which came into force in January 2020. The TPI rules:

- Restricted the marketing of speculative mini-bonds to consumers that have self-certified as either high net-worth or sophisticated AND where the products have been preliminary assessed to be suitable for them.
- Mandated that any promotion of speculative mini-bonds to such consumers must clearly state the risks to consumers of losing all their investment and fully disclose all costs or third-party fees.

Using design led thinking, an approach to policy-making that ensures the consumer is kept front of mind, we combined consumer research, behavioural insights and online experiments to test and understand consumer behaviour and comprehension of risk in this market and the expected effect of the policy intervention.

We ran 2 online experiments to test consumer perception of risk and the effect of the advertised rate of return on consumer choices of different HRIs. Our first experiment investigated consumers' revealed preferences for risky product types relative to a safer

investment option. Our second experiment tested the effect of the new TPI risk warning on investor choices and comprehension of risk. This second experiment was designed to inform the FCA's consultation on whether to make the TPI rules permanent and provides valuable experimental evidence that follows recommendations that disclosure and risk warnings should not be presumed to be effective (AFM & ASIC, 2019) before testing.

Method

We ran 2 online experiments to test (1) participants' preferences across different investment products that have different rates of return and inherent levels of risk (the risk of losing capital invested and any promoted returns) (2) the relative effect of the new TPI risk warning. Using an online panel provider (Prolific.ac), our sample consisted of a total of 1,901 participants who passed our initial screening across both experiments. Just over half were female, close to half were in full time employment, the average age was 35 and there was a low level of previous investor experience (the majority had previously invested in a Cash ISA only and only a small number had professional investment experience (IFA or ex IFA)). This sample has a higher proportional representation of women than what we would expect to see in the population of speculative mini-bond investors, who are typically male. However, the relatively low level of financial experience in the sample is representative of the many people who invest in mini-bonds and are not financial professionals.

Participants were asked to choose between mock ups of real financial promotions for different pairs of investment products, for which we varied the level of return offered, the type of products that were compared and the type of risk warning that was applied. We compared all choices to the safe, riskless Cash ISA baseline. Higher risk choices included Stocks and Shares (S&S) and Innovative Finance (IF) ISAs as well as very high risk investment options, mini-bonds, cryptoassets and 'other investment products'. 'Other investment products' are high risk investment that in our simulated promotions are typically described as a '(fully diversified) managed funds'. In Experiment 2, we tested the effect of variations on a commonly used old risk warning 'Capital at risk.' against the new TPI risk warning:

'You could lose all of your money invested in this product.

This is a high-risk investment and is much riskier than a savings account.'

[IF ISA only] 'ISA eligibility does not guarantee returns or protect you from losses.'

In the first experiment, we asked participants to explain their choice in a free-text box. In both experiments, for a sample of their choices and other randomly selected promotions, participants were asked to identify the level of risk and the level of Financial Services Compensation Scheme (FSCS) cover associated with each product type.

Our hypothesis for Experiment 1 was that the rate of advertised return would induce consumers to choose riskier products and for Experiment 2, our hypotheses were that the new risk warning would have a positive effect on consumer choice (ie inducing them to choose less risky products) and on comprehension of product risk.

Results

In Experiment 1, we find that participants **prefer the lowest-risk product** (a Cash ISA) to higher-risk investment choices. Comparing choices between higher-risk products, we find that participants prefer speculative mini-bonds relative to Stocks and Shares ISAs. Whilst this may be a genuine product preference, the fact that participants on average prefer the safer investment option, may suggest that mini-bonds are wrongly perceived as less risky. We find a surprisingly small effect of advertised return on choice, which nonetheless has a positive effect until the difference in return between products is relatively large, at which point we suggest consumers may be alert to fraudulent scams. Overall, our results indicate that, whilst consumers prefer less risky investment choices, they may be persuaded to choose riskier options when the difference in return is significant, or when they are choosing between HRI products.

In Experiment 2, we find a positive effect for the new risk warning on participants' **comprehension** of investment risk relative to the old risk warning. The largest relative positive effect is on speculative mini-bonds and the relative smallest positive effect is for IF ISAs.

When the new risk warning is applied, participants still prefer the safer investment choice to risky products, and are even slightly less likely to choose mini-bonds and cryptoassets than a Cash ISA compared to when the old warning is applied. We find the largest positive effect of the new risk warning on participants' **choices** via its interaction with the rate of return offered. Independent of preferences across risky product types, on deciding to choose a product riskier than a Cash ISA, participants are more likely to choose a product when the advertised rate of return is higher. This suggests that participants rationally demand greater return for a higher level of risk. Under the new risk warning, participants are also more likely to make nuanced choices between different risk-return trade-offs. When seen in direct comparison to a product with an old risk warning, the new risk warning prompted participants to be relatively more sceptical of very high rates of return.

Discussion

Our findings from both experiments demonstrate through participants' revealed preferences and varying ability to correctly identify product risk, that consumers may misunderstand the relative riskiness between high risk products. In general, participants preferred lower risk products (particularly Cash ISAs). However, in Experiment 1 participants preferred riskier mini-bonds to Stocks and Shares ISAs.

Our results in Experiment 2 demonstrate that changing the content of risk warnings can have a measurable impact on consumer comprehension of investment risk. We find a positive relative effect of the new risk warning on participants' comprehension of investment risk for all risky products. The relative improvement in comprehension under the new risk warning is lowest for IF ISA, which again may be suggestive of a misunderstanding of relative product risk. Nonetheless, the level improvement relative to the old risk warning shows that it is somewhat mitigated by the use of new carefully worded risk warnings.

2 Introduction

Significant consumer harm can arise if retail consumers invest in high risk investments (HRIs) such as speculative mini-bonds without properly understanding the associated risk and then later experience the loss of their investment in a case of firm failure. We expect that investor choices amongst different HRIs are influenced both by the risk-return trade-off and pre-existing consumer comprehension of product risk.

Market context

In 2019, the Financial Conduct Authority (FCA) published its [temporary intervention \(TPI\) on the marketing of speculative mini-bonds to retail investors \(FCA, 2019\)](#), which came into force January 2020. The TPI aimed to mitigate consumer harm by reducing the number of unsuitable investors investing in speculative mini-bonds (a type of high risk investment (see Box 1. below)) without a full understanding of the risk involved.

Box 1. Speculative mini-bonds

Speculative mini-bonds are a type of high risk investment. In the FCA Handbook, speculative mini-bonds are referred to as speculative illiquid securities which are, with some exceptions, *unlisted debentures and preference shares where the issuer uses the funds raised to lend to a third party, invest in other companies, or purchase or develop property* (see full definition in [COBS 4.14.17R – COBS 4.14.19R](#)).

Common features of these investments are set out in the [Temporary Product Intervention \(p3\)](#) and include: offering a high fixed rate of interest (often 8% or more) to investors if they commit to invest for a period of time (for example, 3 or 5 years), with little or no opportunity to sell or transfer the investment before the end of that period.

The FCA was particularly concerned about mass-marketing of speculative mini-bonds that focused on advertising high rates of return, without placing sufficient emphasis on the high risks of a consumer losing their investment. The TPI strengthened the FCA's financial promotions rules from January 2020 by preventing the marketing of speculative mini-bonds to most retail investors and mandating a specific risk warning and disclosure to accompany financial promotions.

This research note accompanies a [Consultation Paper](#) that seeks to make these rule changes permanent. We provide supporting evidence with our assessment of the efficacy of the risk disclosures that were introduced as one part of the Temporary Product Intervention.

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 1 shows a commonly used risk warning which could be used under the old rules and Figure 2 shows an example new risk warning. Slight variations on these risk warnings to match to products can be found in Annex 1.

Figure 1: Example risk warning (under the old rules)

Capital at risk.

Figure 2: Example risk warning (under the new rules)

You could lose all of your money invested in this product

This is a high-risk investment and is much riskier than a savings account

We test the effectiveness of the new version of the risk warning compared to variations on a risk warning that states '*Capital at risk*', which meets the pre-TPI requirement that a financial promotion makes clear that an investor's capital is at risk and is a common market interpretation of this requirement.

We test the relative effect of these risk warnings on a range of simulated example financial promotions for Cash ISAs and riskier investment products that include Stocks and Shares ISAs, Innovative Finance (IF) ISAs, mini-bonds, cryptoassets and 'other investment products' (see Annex 4 for examples of adverts used).

Evidence for risk warnings

There is a growing literature exploring the effectiveness of risk warnings on financial products, which provides evidence that risk warnings can be effective but should not be presumed to be so in all contexts.

Hayes, Lee and Thakrar (2018) found that in an experimental setting investors were better able to select cheaper funds when presented with a risk warning that informed them that charges can have a significant effect on returns. However, context seems to matter: Mullet, Smart and Stewart (2018) found that risk warnings presented in character-limited social media posts made products less attractive to consumers and meant that they were less likely to choose a suitable product. They suggest this is because consumers were less likely to click on and further explore product features when the advertisement included a risk warning. In a similar experiment with mock advertisements for a hypothetical investment, Cox and de Goeij (2016) found that explicit risk framing led to a small but significant increase in the perceived riskiness of the investment proposition. However, the risk warning also decreased investor intention to search for additional information about the proposition, so there was not a clear overall positive effect on consumer behaviour.

The Netherlands Authority for Financial Markets (AFM) and Australian Security and Investments Commission (ASIC) (2019) in a meta-study of disclosure remedies across the financial sector, concluded that disclosures (including risk warnings) often have no effect on consumer behaviour. The paper cites a study by AFM (2016) that found

including the risk warning '*Caution! Borrowing money costs money*' in advertisements for consumer credit in the Netherlands had no short-term effects on consumer perception or behaviour.

The literature on the efficacy of risk warnings is complemented and informed by the literature on consumer decision making. Lunn, Bohacek, Somerville, Choisdealbha and McGowan (2016) found that in an experimental setting individuals struggle to choose the best deal once they must consider more than 3 different product attributes. This suggests it is important to consider the potential effectiveness of risk warnings in the context of the number of other product characteristics. There is, of course, no guarantee that a risk warning is more prominent amongst other characteristics, nor that it can help simplify choices between products (AFM and ASIC, 2019). However, insofar as risk warnings can be effective, previous research has demonstrated that a simplified, easy to understand message is most likely to change consumer behaviour (see eg Behavioural Insights Team 2012).

A wider literature explores the efficacy of risk warnings outside the financial sector on products such as cigarettes, chemicals and alcohol (see eg Purmehdi, Legoux, Carrillat, Senecal (2016)). However, as Mullett et al. (2018) argue, risk warnings on financial products aim to accomplish a more nuanced goal. Namely, risk warnings on financial products do not aim to reduce indiscriminately overall consumption of the product but to better inform consumers about the risks associated with a product, so that they are more likely to choose products that match their risk appetite. The experiments in this paper provide evidence for whether the TPI risk warning is relative better at helping consumers correctly identify the investment risk associated with a product. Ultimately, evidence from existing applied and academic literature suggests that disclosure remedies, including risk warning remedies, should not be a-priori presumed to work and must be tested. Therefore, we test in an experimental setting how new risk warnings mandated under the TPI affects consumer choice and comprehension of risk.

Approach

We ran 2 experiments in an online laboratory setting sequentially, which allowed us to use the first to inform the design of the second. In our first experiment, we explored preferences across investment products in the presence of risk-return trade-offs. Building on this understanding, we tested for the positive relative effect of new risk warnings mandated by the TPI on consumer behaviour in the second experiment. Primarily, we looked to understand whether variations on the new risk warning under the TPI have a measurable improvement on (i) consumer choice (do they induce consumers to choose less risky products, on average) and (ii) consumer understanding of the relevant risks (do they help consumers understand the risk of losing any money invested), compared to a typical, pre-TPI '*capital at risk*' warning.

3 Experiment 1: risk preferences and understanding

Experiment 1 identified common revealed risk preferences across different investment products and variation in consumer understanding of product risk. We tested how participants' choices between investment product types with different inherent levels of risk (eg a zero risk Cash ISA and a high risk speculative mini-bond) change when the advertised rate of return changes, altering the risk-return trade-off. We considered the relative effect of product type on choice and understanding and how rates of return influence consumer choice (whether or not the relationship is always positive). This allowed us to test whether people are always more likely to demand a higher rate of return to choose a riskier product. We measured comprehension of product risk using multiple choice questions.

Method

Participants

We used participants from a panel provider (Prolific.ac) that provides representative samples of the UK population and is better balanced along demographic metrics than common university or undergraduate only samples (see Annex 6). A very low proportion of subjects reported that they had previously owned an IF ISA or mini-bond. We removed 9.6% of participants who provided nonsensical responses or failed to complete tasks.

Materials

We selected a range of investment products - Cash ISA, Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, mini-bonds and 'other investment products' - for participants to choose between, which had varying levels of inherent risk and advertised rates of return participants' choices relative to a Cash ISA baseline.

Example real promotions of these investment products were scraped from online adverts and aggregator services. From these, 138 unique promotions were chosen, with a roughly equal split across product categories. Products were only included if they clearly fell into only one category, for example, IFISA products were excluded if the advert stated that they contained mini-bonds. An issue for the planned statistical analyses was that Cash ISA returns are significantly lower than those for IF ISAs or mini-bonds. To ensure that different products were comparable, we created a range of simulated promotions where the distribution of advertised return across products was the same. The range of advertised return for Cash ISAs was lower than for other products, as it would be in reality, but overlapped with the bottom of the range for the other products (see Annex 5 for distributions of simulated rates of return used). Each product promotion was labelled with an old style risk warning. Cash ISAs did not include a risk warning because they are low risk products.

Set up

Participants completed 4 tasks in the experiment:

1. Choice between products

Participants chose between pairs of products, created so that an individual saw every possible pair between the 5 different product types (ie 20 pairs in total). For every possible combination of product types, in 1 pairing product A had a higher advertised return and in the other, product B offered a higher return. Then participants were shown a further 40 random pairs of products. In total, each participant saw 60 different pairs of products and had to choose 1 product for each pair.

2. Explanation of choice

Participants were shown 10 out of 60 of their own choices, and asked to explain their choice in a free-text box (minimum 15 words). The sample shown to them included 1 example for every possible product type.

3. Risk perception task

Participants were asked to respond to multiple choice questions for a randomly sampled selection of 10 of their choices (with no overlap with the 10 sampled for the explanation of choice task). The sample was selected to include at least 1 example for every product type.

For each of the 10 randomly sampled choices, participants selected the option that best described the type of risk associated with their choice:

- The advertised return is guaranteed and your money is protected.
- You may not get paid all of the advertised interest, but you won't lose the money you initially invested.
- You may lose some of the money you invested.
- You may lose all of the money you invested.
- You may lose all of the money you invested, and then still owe more on top of that.

4. Demographic and investment experience questions

Participants were asked:

- i. to provide information on their age, gender and employment status
- ii. to indicate whether they had ever owned a cash ISA, IFISA, or mini-bond
- iii. to rate their willingness to accept financial risk and their trust in banking institutions using a 1-7 Likert scale

Results

The advertised rate of return has an (expected) positive effect on participants' choice - products offering a higher return are more likely to be chosen, but this effect is relatively small. If an individual is indifferent between products (controlling for the effect of

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

different product types), a 5% increase in the return of one product would change the likelihood of choosing that product from 50% to 51.4% (Figure X; Annex 8, Table 8.1). We find that the positive effect of rate of return diminishes at very high levels of advertised return. Once the rate of return of a product is around 30%, the relationship inverts and a participant is less likely to choose this product with the higher return (Figure 2, Annex 8, Table 8.1).

This is supported by participants' free text responses when asked to explain their choice. Examples include: 'Cash isa [sic], so less risky, Capital not at risk, also interest rates higher than the other' and 'Heard of [firm name] 1.85% seems [sic] a good reasonable rate, the other one at 6% is over rated'. These responses appear to suggest an awareness of rates of return that are 'too good to be true'.

Controlling for the effect of advertised return, we observe participants' relative judgment of risk between products (Annex 8, Table 8.1). Participants prefer the safest investment choice options - Cash ISAs (no risk) are more likely to be chosen than riskier products. However, participants' revealed preferences demonstrate differences in their perception of risk between different risky product types. Mini-bonds and IF ISAs were perceived as similarly risky. If a participant was indifferent between choosing a mini-bond or an IF ISA (50% chance of choosing either) and we substituted a Cash ISA for one of these, the likelihood that the remaining risky product was chosen fell to 40%. Noticeably, Stocks and Shares ISAs and 'other investments products' were incorrectly perceived as even riskier than mini-bonds and IF ISAs: swapping either of these risky products for a Cash ISA reduced the probability that the remaining risky product was preferred from 50% to 27%.

The level of comprehension of product risk was higher for Cash ISAs than all riskier products (Annex 8, Table 8.2). Amongst risky products, participants were relatively more likely to correctly identify the risk associated with a Stocks and Shares ISA and were the least accurate at identifying the risk associated with mini-bonds.

We undertook additional analysis to explore the effect of stated risk attitudes and gender on choice. We find that the degree to which advertised return affects choices is very strongly determined by a participant's risk attitude - a risk loving participant is more likely to choose a risky product (not Cash ISA) if it offers a higher return (an increasing, linear relationship). Controlling for return, they are still more likely to prefer Stocks and Shares ISA (Annex 8, Table 8.3). When considering the impact of gender, after controlling for the difference in return between products, male participants are more likely to choose mini-bonds and Stocks and Shares ISA than Cash ISAs (Annex 8, Table 8.4).

Discussion

We found that safe Cash ISA products are preferred on average. However, the investment experience questions revealed that a large majority of experiment participants had previously invested only in Cash ISAs and had limited experience of any other product, so this preference may reflect higher product recognition and might not be representative of the preferences of more experienced investors. Nevertheless, our work to understand the consumer journey for mini-bonds revealed that that retail investors

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

are a mix of more and less experienced investors, which suggests that our findings are widely generalisable.

We found that amongst risky product choices, participants prefer riskier speculative mini-bonds and IF ISAs to Stocks and Shares ISA and 'other investment products'. It may be that consumers find these products more attractive despite their higher risk. However, the questions that assess comprehension of risk indicate that participants are least accurate at identifying the investment risk associated with mini-bonds and the level of comprehension doesn't differ significantly between other HRIs. Therefore, this finding could highlight a possible consumer harm – that consumers struggle to accurately distinguish between more and less risky options. Further research to understand whether the branding of speculative mini-bonds as a 'bond', with its connotation of security, has a measurable relative effect on choice would be useful.

Our finding that the probability of a product being chosen increases with the rate of return offered was expected. However, the small size of the effect is surprising, an absolute increase in return of 5% (eg from 5% to 10%) induced an increase of only 1.4 pp in the likelihood of a product being chosen (eg from a 50% chance to a 51.4% chance). The diminishing positive effect of rate of return at high levels of advertised return contradicts anecdotal evidence that consumers are disproportionately influenced by the very high rates of return offered by speculative mini-bonds and suggests that consumers are alert to products that are 'too good to be true'.

4 Experiment 2: risk warnings

In Experiment 2, we tested for the positive effect of (1) the new TPI risk warning:

You could lose all of your money invested in this product.
This is a high-risk investment and is much riskier than a savings account.
[IF ISA only] ISA eligibility does not guarantee returns or protect you from losses.'

relative to (2) the old pre-TPI risk warning:

'Capital at risk. [dependent on product type] No FSCS.'

on participants' choices and understanding of risk (see Annex 2. for full list of variants on these risk warnings used).

Experiment 2 consisted of 2 'waves'. The first wave allowed us to measure the relative effect of the new risk warning, compared to the old risk warning, on the likelihood that a risky product was chosen and on participants' comprehension of product riskiness in a between-subjects design. We hypothesised that the new risk warning would have a positive effect on the likelihood of choosing a safer product and on participants' comprehension of risk.

The second wave was designed to measure the effect of the new risk warning when it is applied to some products and not to others, as may be the case in a real-world setting. Our hypothesis was that participants would infer that products with the old risk warning are safer than they really are, when compared to products with the new risk warning.

Method

Participants

For Experiment 2 we used a sample that was representative of the UK census for age, gender and ethnicity (see Annex 6). The sample was larger than in Experiment 1 ($n = 1627$) to account for the larger number of predictors in our analysis.

Materials

Materials were simulated example financial promotions of Cash ISAs, Stocks and Shares ISAs, Innovative Finance (IF) ISAs, Mini-bonds, cryptoassets and 'other investment products' (Annex 2 and 4). Simulated promotions, such as seen in Figure 3 use commonplace descriptions seen in real adverts such as an emphasis on 'fixed returns'.

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 3. Example simulated financial promotion for a speculative mini-bond with the new risk warning

Put your money somewhere with history



Invest British

Minibonds from Invest British let you put your money in Great British companies

Fixed returns 8%

You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account.

Set up

In Wave 1, participants were assigned to 1 of the 2 conditions of the risk warning treatment (ie either (1) the pre-TPI interpretation of the risk warning 'capital at risk', (2) the new TPI risk warning). For both groups, all Cash ISAs were shown with no risk warning (as they would be in real life), which provided the baseline for our statistical analysis. In the old risk warning group, mini-bonds, IF ISA and 'other investment products' were shown with 'Capital at risk. No FSCS' and SS ISA and crypto assets were shown with 'Capital at risk'. For the new risk warning treatment group, all risky products were shown with the warning as in Annex 3. The additional line, 'ISA eligibility does not guarantee returns or protect you from losses', was applied to IF ISAs only.

Participants chose between pairs of products across the full range of product types, which all had the same risk warning (either old or new, depending on which group the participant was assigned to).

In Wave 2, participants were given a smaller choice set – they were randomly assigned only 2 product types and were asked to choose between pairs composed only of these products. Each of the 2 product types had a different risk warning – either the old or the new TPI risk warning.

Both waves of Experiment 2 required participants to complete 3 tasks:

1. Choice between products

- a. In Wave 1, participants chose between 60 different pairs of products (every possible combination of the 6 product types – once where product A had a higher rate of return and once where product B did (ie 30 pairs) – for 2 subsequent rounds).
- b. In Wave 2, participants chose between 20 different pairs for the 2 product types they were assigned.

2. Risk perception responses

Participants were asked to explicitly indicate their perceived risk for each product type (ie to choose the most accurate statement that best described the likelihood of losing money) as in Experiment 1.

- a. In Wave 1, participants gave responses for 2 examples of all product types that they saw.
- b. In Wave 2, participants gave responses for 3 examples from each of the 2 product types that they saw. They then gave responses for 2 examples for every other product type (which they did not see, and which had the old risk warning).
- c. In Waves 1 and 2, participants provided a response to the question 'What level of FSCS eligibility applies to this product?' for each product type.

Results

Wave 1

As in Experiment 1, participants preferred safe Cash ISAs, and demanded higher rates of return to choose a riskier product (Annex 8, Table 8.5). However, the size of this preference was smaller than seen in Experiment 1 and we saw no significant difference between the likelihood of choosing either a Cash ISA or IF ISA.

The new TPI risk warning significantly reduced the likelihood that participants chose Stocks and Shares ISAs and cryptoassets but not other risky products, after controlling for the advertised rate of return. The largest effect of the new risk warning was via an interaction effect with rate of return, such that when the new risk warning was applied, participants were more likely to select a product with a higher advertised rate of return. This may be understood as participants making a rational trade-off between risk and return. We suggest that the risk warning may increase the amount of attention that participants give to product features such as the rate of return, independent of existing risk preferences across risky product types.

Under the original risk warnings, participants' comprehension of risk across risky products was similar to Experiment 1 (Annex 7, Figure 7.1 and Annex 8, Table 8.6). The new risk warning significantly improved participants' understanding (Figures 4 and 5.), with the largest effect for Stocks and Shares ISA and the smallest for IF ISA. This means that products riskier than a Cash ISA were more likely to be identified with the risk of 'losing some' or 'losing all' money invested and participants were less likely to associate a given risky product type with 'return guaranteed' and 'deposit guaranteed'. However, it

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

also made participants slightly more likely to overestimate risk - incorrectly associating IF ISAs, Stocks and Shares ISA and cryptoassets with a risk of losing more than the initial deposit.

Figure 4. Participant estimates of investment risk under the old risk warning

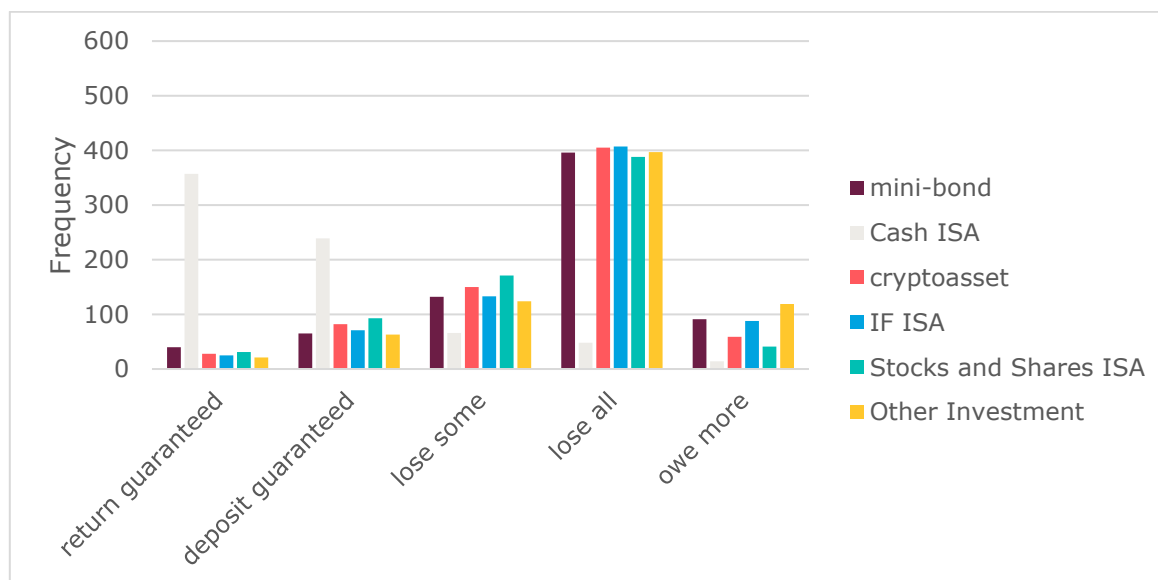
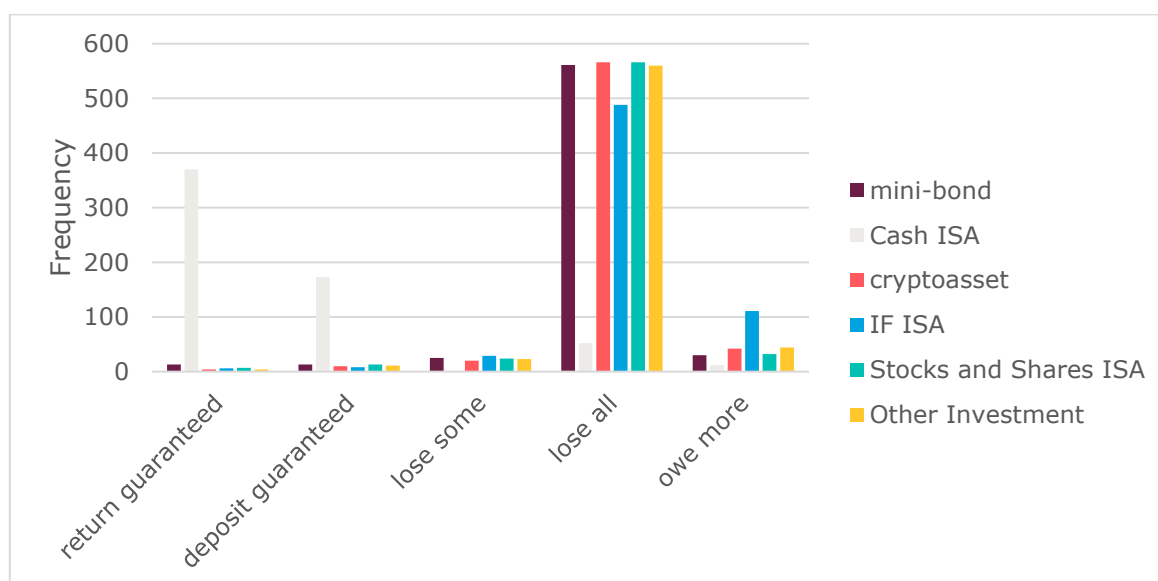


Figure 5. Participant estimates of investment risk under the new risk warning



The versions of the new TPI risk warnings that we tested were not shown with a FSCS cover warning, which can and may be applied in the real world. Nonetheless, we were interested in the relative effect of this new risk warning compared to old risk warnings that for some product types carried the additional FSCS cover warning on participant comprehension. For those product types where the old risk warning explicitly warned of no FSCS cover, (mini-bonds, IF ISAs and other investments) comprehension of FSCS cover declined slightly under the new risk warning (Annex 7, Figure 7.2 and Annex 8,

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Table 8.8 & 8.9). Whereas for those products where FSCS cover wasn't mentioned in the old risk warning, comprehension improved under the new risk warning (cryptoassets and stocks and shares ISAs). It is important to note that our tested variations of the new risk warning do not preclude the application of the FSCS cover warning in the real world.

Wave 2

Wave 2 was designed to measure the effect of the new risk warning when it is applied to some products and not to others. We found that participants do not infer that products with the old risk warning are safer than they really are when compared to products with the new risk warning. When participants rated the riskiness of example products that only had the old risk warning, after choosing between products which had both (either the old or new warning), they didn't judge the products with only the old risk warning as relatively safer (Annex 7, Figure 7.3 and Annex 8, Table 8.11). This indicates that applying new risk warning to mini-bonds isn't harmful to consumers' understanding of product risk where it isn't applied (that is, in the case of the current TPI, to non-mini-bond products).

As in Wave 1, we also found no statistical difference between the likelihood of participants choosing IF ISA or Cash ISA, even after controlling for return (Annex 8, Table 8.10).

The largest effect of the new risk warning on choice was via its interaction with the rate of return offered. There was a strong negative interaction effect between the new risk warning and a non-linear specification of advertised rate of return, which suggests that in comparison with an old warning, the new risk warning prompts participants to be relatively more sceptical when the rates of return offered are very high (Annex 8, Table 8.10).

Participant comprehension of risk – accuracy of identifying a product with the correct level of risk – was highest for Cash ISA and lower for all risky investment products, with no significant differences in understanding between risky products (Annex 8, Table 8.11). Participants were better able to correctly identify the risk of riskier products in the presence of the TPI risk warning. The biggest positive effect of the TPI risk warning was for mini-bonds and the smallest was for IF ISAs.

Again, the relative effect of the new risk warning on comprehension of FSCS was in line with Experiment 2, Wave 1 (Annex 7, Figure 7.4 and Annex 8, table 8.13 & 8.14).

Discussion

For Experiment 2, we increased the sample size of participants, removed the time consuming free-text response elicitation task (choice explanation) and increased participants' choice set across a larger number of investment products to obtain the statistical power to test the relative positive effect of the new risk warning.

We find the strongest relative positive effect of the new TPI risk warning via its interaction with rate of return. A product with a new risk warning is more likely to be chosen if it also offers a higher rate of return, independent of preferences across products. We suggest that this is evidence of participants making a rational trade-off – demanding higher return for a given level of risk (higher than Cash ISA). This finding is

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

nuanced; the relative effect of the new risk warning when directly compared to a product with an old risk warning, is to make participants aware of 'too good to be true' offers - the product with a new risk warning is less likely to be chosen when the return advertised is very high. This supports similar findings in Experiment 1.

The relative effect of the new TPI risk warning on participants' understanding of general investment risk is significant and positive. It has the largest positive effect on the probability that a participant can accurately identify the level of product risk is for speculative mini-bonds, which is the HRI that the TPI and new risk warning was primarily mandated to address. However, the smallest relative positive effect is for IF ISAs. Combined with our result that participants are no less likely to choose an IF ISA than a Cash ISA, our results suggest that there exists significant consumer misunderstanding about the level of investment risk associated with IF ISAs.

We are currently considering further online experiments to test consumers' approach to the process for categorising themselves as high net worth, sophisticated or restricted investors when accessing a HRI. We may also be able to test for additive effects – combining any new variations with the change in risk warnings set out in Experiment 2. This may allow us to find a larger measurable effect of measures on behaviour and understanding.

5 Conclusions

Evidence from our experiments suggests that consumers may not accurately distinguish between more and less risky options when choosing between HRI financial promotions. Our first experiment revealed a preference for mini-bonds relative to better known and less risky Stocks and Shares ISAs. We find a surprisingly small effect of advertised rates of return on choice, which nonetheless has a positive effect until the difference in return between products is relatively large, which suggests that retail investors may be alert to 'too good to be true' offers.

Results from our second experiment show that the new risk warning has a significant and positive effect relative to the old risk warning on participants' comprehension of product risk (increasing the likelihood that they correctly associate high-risk products with the risk of losing all money invested). This improved comprehension holds even when consumers saw the new risk warning applied to some products but not others. Further, under the new risk warning, participants are more likely to demand higher return for a given level of risk (riskier than Cash ISA) and are more sceptical of very high 'too good to be true' rates of return. These findings support the FCA's proposal that the new risk warning mandated under the TPI should be made permanent.

These findings contribute to the literature on risk warnings, demonstrating that changes to the content of risk warnings can have positive measurable effects on consumer choices and on consumer comprehension of investment risk.

References

- AFM. (2016). Caution! Borrowing money costs money: a study of the effectiveness of a warning in credit advertisements report.
- AFM., & ASIC. (2019). Disclosure: Why it shouldn't be the default. Report 632.
- Behavioural Insights Team (2012). Applying behavioural insights to reduce fraud, error, and debt.
- Chen, D. L., Schonger, M., & Wickens, C. (2016). oTree—An open-source platform for laboratory, online, and field experiments. *Journal of Behavioral and Experimental Finance*, 9, 88–97. <https://doi.org/https://doi.org/10.1016/j.jbef.2015.12.001>
- Cox, R., & de Goeij, P. (2016). The Effects of Risk Framing, Balanced Information and a Regulatory Seal of Approval on Investor Perception and Behavior. Working paper.
- Financial Conduct Authority (FCA). (2019). Temporary intervention on the marketing of speculative mini-bonds to retail investors.
- Hayes, L., Lee, W., Thakrar, A. (2018). Now you see it: drawing attention to charges in the asset management industry. Financial Conduct Authority Occasional Paper 32.
- Lopez, Jesse and Hillygus, D. Sunshine. (2018). Why So Serious?: Survey Trolls and Misinformation. <http://dx.doi.org/10.2139/ssrn.3131087>
- Lunn, P., Bohacek, J., Somerville, J., & Choidealbha & McGowan, F. (2016). An investigation of consumers' capabilities with complex products. PRICE Lab, Economic & Social Research Institute.
- Mullett, T., Smart, L., Stewart, N. (2018). Blackbird's alarm call or nightingale's lullaby? The effect of tweet risk warnings on attractiveness, search, and understanding. Financial Conduct Authority Occasional Paper 47.
- Purmehdi M., Legoux R., Carrillat F., Senecal S. (2017). The effectiveness of warning labels for consumers: A meta-analytic investigation into their underlying process and contingencies. *Journal of Public Policy & Marketing*, 36, 36–53.

Annex 1: New risk warnings rules

This Annex summarises the new risk warning rules as set out in the Temporary Product Intervention (<https://www.fca.org.uk/publication/tpi/temporary-intervention-marketing-speculative-mini-bonds-retail-investors.pdf>) and in COBS (<https://www.handbook.fca.org.uk/handbook/COBS/4/14.html>). The required content (Figure 1.1) and presentation (Figure 1.2) of the risk warnings are set out below.

Figure 1.1 Content of new risk warnings mandated under the TPI

COBS 4.14.6R
01/01/2020

(1) For the purposes of COBS 4.14.5R(1), and subject to COBS 4.14.6R(2) and COBS 4.14.6R(3), the financial promotion must contain the following risk warning:

You could lose all of your money invested in this product.

This is a high-risk investment and is much riskier than a savings account

(2) Where the financial promotion contains a reference to an innovative finance ISA, the risk warning is as follows:

You could lose all of your money invested in this product

This is a high-risk investment and is much riskier than a savings account

ISA eligibility does not guarantee returns or protect you from losses

(3) Where the number of characters contained in the risk warnings in this rule exceeds the character limit permitted by a third-party marketing provider, the following risk warning must be used:

You could lose all of your money invested in this product

Figure 1.2 Presentation of new risk warnings mandated under the TPI

COBS 4.14.7R

01/01/2020

The relevant risk warning in [COBS 4.14.6R](#) must be:

- (1) prominent;
- (2) contained within its own border and with bold text as indicated;
- (3) if provided on a website or via a mobile application, statically fixed and visible at the top of the screen even when the [retail client](#) scrolls up or down the webpage; and
- (4) if provided on a website, included on each linked webpage on the website.

COBS 4.14.8G

01/01/2020

The relevant risk warning, including the font size, should be:

- (1) proportionate to the [financial promotion](#), taking into account the content, size and orientation of the [financial promotion](#) as a whole; and
- (2) published so that it is clearly legible against a neutral background.

Annex 2: Investment advertisements

In order to test the relative positive effect of the new risk warning, we measured its relative effect on consumer choice and risk perception across a range of investment product advertisements. Table 2.1 outlines what investment products we included in the experiments.

Some advertisements were for specific products, namely speculative mini-bonds and cryptoassets. We also included advertisements from a selection of other products not specified here (Figure 2.1 provides some examples).

In addition to advertisements for specific products, other advertisements were for Cash ISAs, Stocks and Shares ISAs and Innovative Finance ISAs. ISAs (individual savings account) are not strictly a product but rather a specific type of tax status.

Table 2.1 Investment products included in the experiments

Investments – Products	Description
Mini-bonds	The term mini-bond can refer to a range of investments. The TPI applied to more complex and opaque arrangements where the funds raised are used to lend to a third party, invest in other companies or purchase or develop properties. There are various exemptions including for listed mini-bonds, companies which raise funds for their own activities (other than the ones above) or to fund a single UK property investment.
Cryptoasset	Cryptoassets are cryptographically secured digital representations of value or contractual rights that use some type of distributed ledger technology (DLT) and can be transferred, stored or traded electronically.
Other investment product	An investment product that cannot be distinctly classified under one of the above categories but is not advertised as an ISA. In our simulated examples, they often referred to a type of fund. See example below in Figure 2.1.
Investments – ISAs	
Cash ISA	A savings account that accumulates tax-free interest.
Stocks and Shares ISA (S&S ISA)	An investment account that accumulates tax-free gains. The range of available investments include: individual shares, investment funds, government and corporate bonds.
Innovative Finance ISA (IF ISA)	An investment account which can contain ISA which contains a loan-based crowdfunding investment component (peer-to-peer (P2P) agreements)

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 2.1 Examples of simulated 'other investment product'



Chocoskey Capital

International funds - High return investments

Low fees - Fully managed diversified funds

22% APR Expected Return

You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account.

Bellweather Investments

Expertise without the expense



Managed funds with a target return of 2.0% APR

You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account. ISA eligibility does not guarantee returns or protect you from losses.



Think Different
Think Green
Support ethical and sustainable development
Good for the earth
Good for your wallet
1.0% APR
You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account

Annex 3: Risk warning treatments

In both Waves 1 and 2 of Experiment 2, participants saw and chose between promotions for different investment products. These promotions had different risk warnings (variations on either the old or new risk warning) depending on the treatment group that the participant was assigned to and at what point in the experiment they saw the product.

Table 3.1 Risk warnings that were applied to investment products

Product type	Condition	Risk warning
Investment - products		
Mini-bonds	Old pre TPI risk warning	<i>Your capital is at risk. No FSCS</i>
Mini-bonds	New TPI risk warning	<i>You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account</i>
Cryptoasset	Old pre TPI risk warning	<i>Your capital is at risk</i>
Cryptoasset	New TPI risk warning	<i>You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account</i>
Other investment product	Old pre TPI risk warning	<i>Your capital is at risk. No FSCS</i>
Other investment product	New TPI risk warning	<i>You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account</i>
Investments - ISAs		
Cash ISA	No risk warning	<i>N/A</i>
Cash ISA	No risk warning	<i>N/A</i>
Stocks and Shares ISA	Old pre TPI risk warning	<i>Your capital is at risk</i>
Stocks and Shares ISA	New TPI risk warning	<i>You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account</i>
Innovative Finance ISA	Old pre TPI risk warning	<i>Your capital is at risk. No FSCS</i>
Innovative Finance ISA	New TPI risk warning	<i>You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account. ISA eligibility does not guarantee returns or protect you from losses</i>

Annex 4: Materials (Experiment 1 and Experiment 2)

For Experiment 1, as well as using examples of real financial promotions, we also created simulated examples where we changed the distribution of the advertised rate of return so that the rates of return across product types would overlap.

In Experiment 2, we used similar methods to vary rates of return across products. In addition, we also introduced the risk warnings outlined in Table 3.1. An example of a mini-bond advertisement with the accompanying risk warnings is included in Figure 4.4.

Figure 4.1 Experiment 1 simulated examples: Mini-bonds with varying rates of return



Figure 4.2 Experiment 1 simulated examples: Cash ISA with varying rates of return

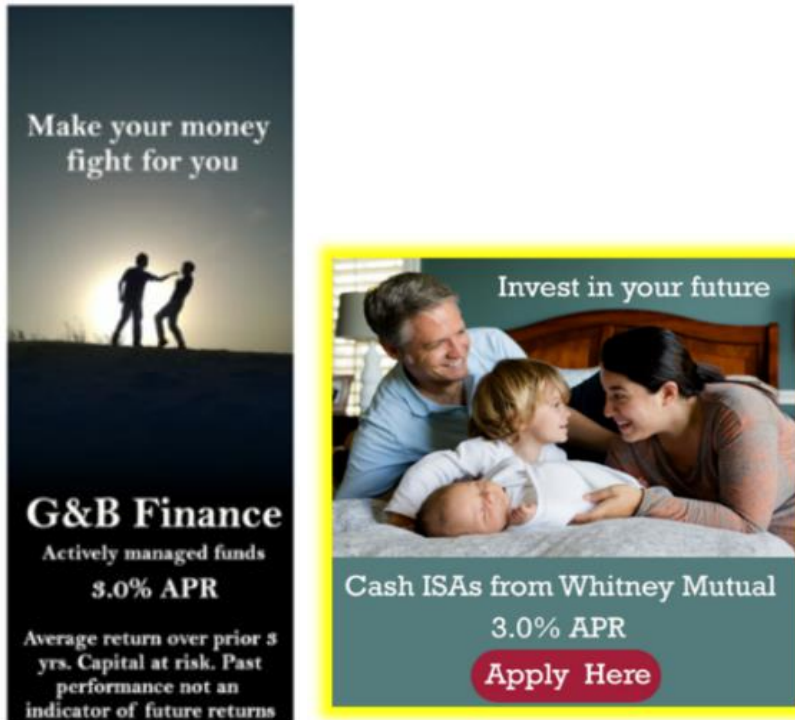


Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 4.3 Example of consumer choice in Experiment 1

There are two advertisements on this page. Please read both carefully, then click on the advert you prefer, before clicking the next button below.



Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 4.4 Example of mini-bond advertisement used in Experiment 2

Put your money somewhere with history



Invest British

Minibonds from Invest British let you put your money in Great British companies

Fixed returns 8%

You could lose all of your money invested in this product. This is a high-risk investment and is much riskier than a savings account.

Annex 5: Distribution of simulated rates of return (Experiment 1 and Experiment 2)

In order to control for the effect of advertised rates of return, we simulated a range of returns across different products. A mix of real and generated adverts were used as stimuli, hence the large differences in distributions between product categories. Figure 1 shows the distribution of simulated return in Experiment 1.

Figure 5.1 Distribution of simulated rates of return (Experiment 1)

category	rate of return mean	rate of return min	rate of return 25th	rate of return 50th	rate of return 75th	rate of return max
Bonds	8.9415	2	4.1425	7.8	10	60
Cash ISA	1.746296	1	1.25	1.8	1.975	3
IFISA	6.995517	2	5.9	7	9	12
Investment ISA	3.9	2.7	2.7	3	6	6
Other Investment	4.474	1.5	2	3	5.6	48

All stimuli were generated specifically for this experiment so the distribution of advertised rates of return is consistent across product types. The exception was for Cash ISAs where higher returns were seen as so implausible there was concern that this could lead to unusual and unrealistic behaviour from participants. Figure 2 shows the distribution of simulated rates of return in Experiment 2.

Figure 5.2 Distribution of simulated rates of return (Experiment 2)

category	rate of return mean	rate of return min	rate of return 25th	rate of return 50th	rate of return 75th	rate of return max
Bonds	8.7	1	3	7	12	22
Cash ISA	2.55	0.5	1.25	1.875	3	8
Crypto	8.7	1	3	7	12	22
IFISA	8.7	1	3	7	12	22
Investment ISA	8.7	1	3	7	12	22
Other Investment	8.7	1	3	7	12	22

Annex 6: Sample characteristics (Experiment 1 and 2)

The sample characteristics of both Experiment 1 and Experiment 2 (Wave 1 and 2) are below in Figure 6.1.

Figure 6.1 Sample characteristics (Experiment 1 and 2)

Metric	Experiment 1.	Experiment 2. Wave 1	Experiment 2. Wave 2
Number of participants	303	1036	715
Number of participants who completed all tasks	274	954	673
Number of participants who dropped out before the end of the experiment	29	82	42
Average age of participants	34	39.4	33.0
Proportion of female participants	70%	58.7%	62.2%
Proportion of participants in full-time employment	43.8%	43.7%	46.7%
Proportion of participants in part-time employment	25%	21.7%	17.8%
Proportion of participants unemployed	11%	12.2%	14.6%
Proportion of participants with investment experience – Cash ISA	59%	64.6%	32.9%
Proportion of participants with investment experience – Stocks and Shares ISA	Not recorded	28.4%	23.6%
Proportion of participants with investment experience – IF ISA	1.8%	1.5%	0.3%
Proportion of participants with investment experience – mini-bond	3.6%	2.8%	1.8%
Proportion of participants with investment experience – Crypto	Not recorded	8.4%	10.3%

Annex 7: Risk estimates and perceived FSCS cover

Figure 7.0 Frequency that participants identified different product types with a level of investment risk (Experiment 1)

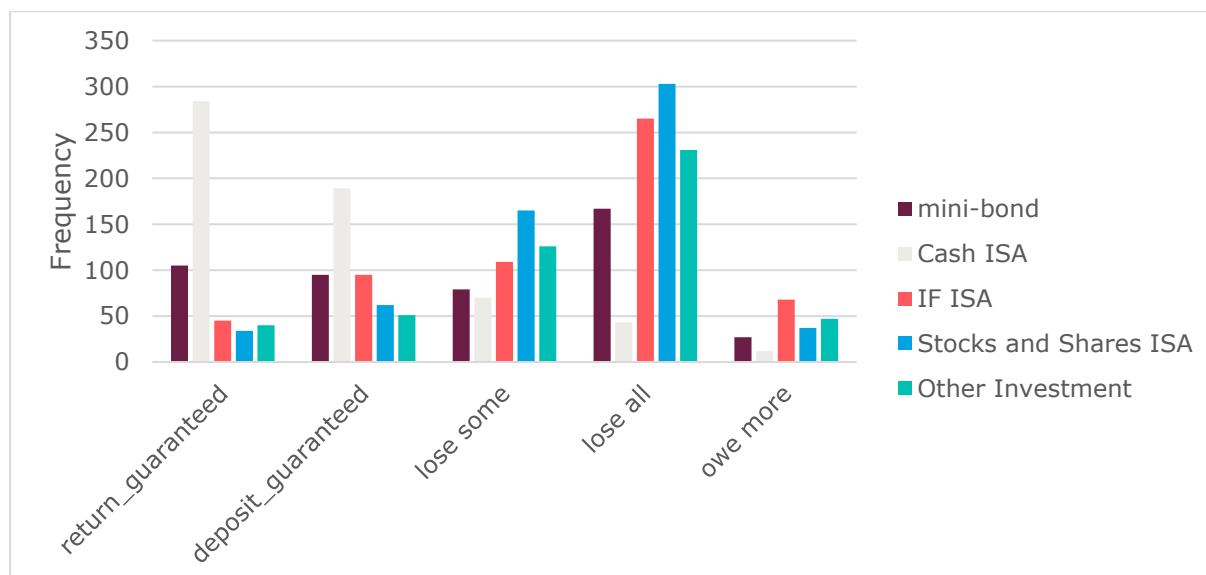
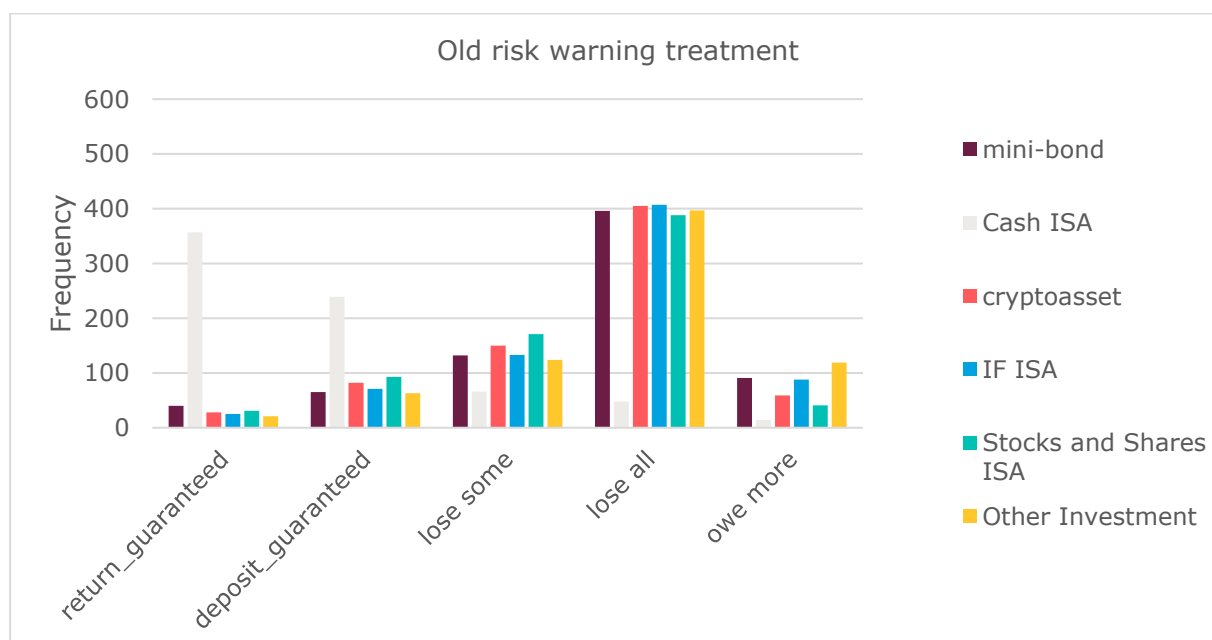


Figure 7.1 Frequency that participants identified different product types with a level of investment risk (Experiment 2, Wave 1)



Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

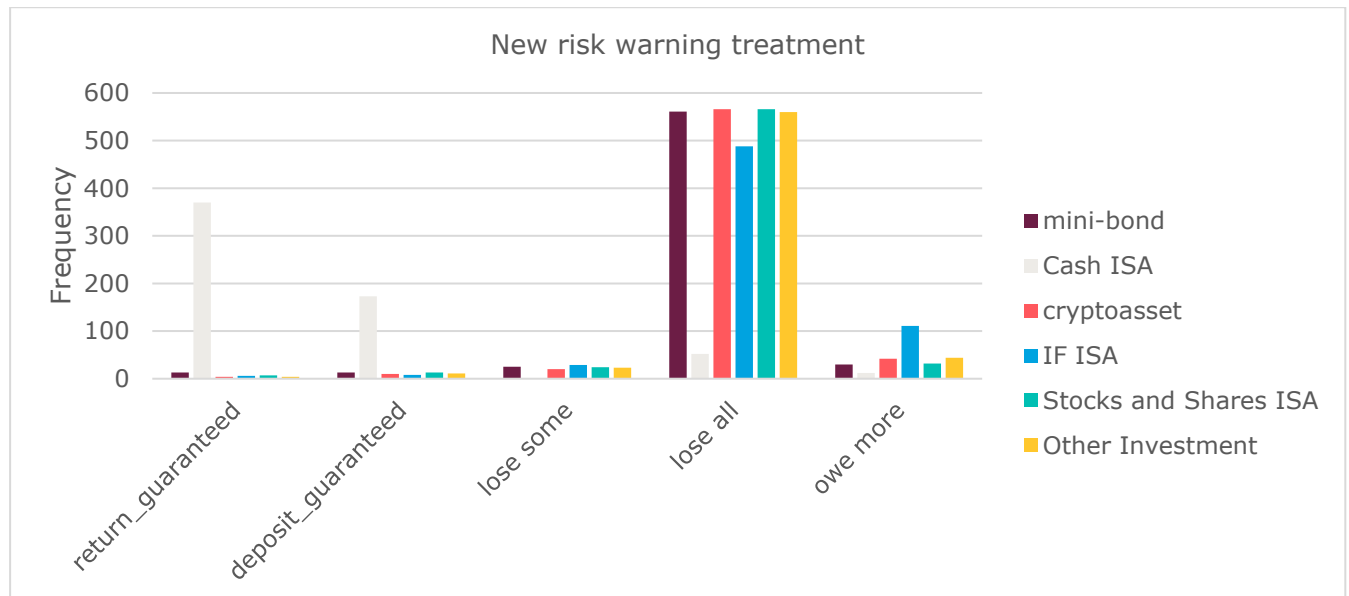
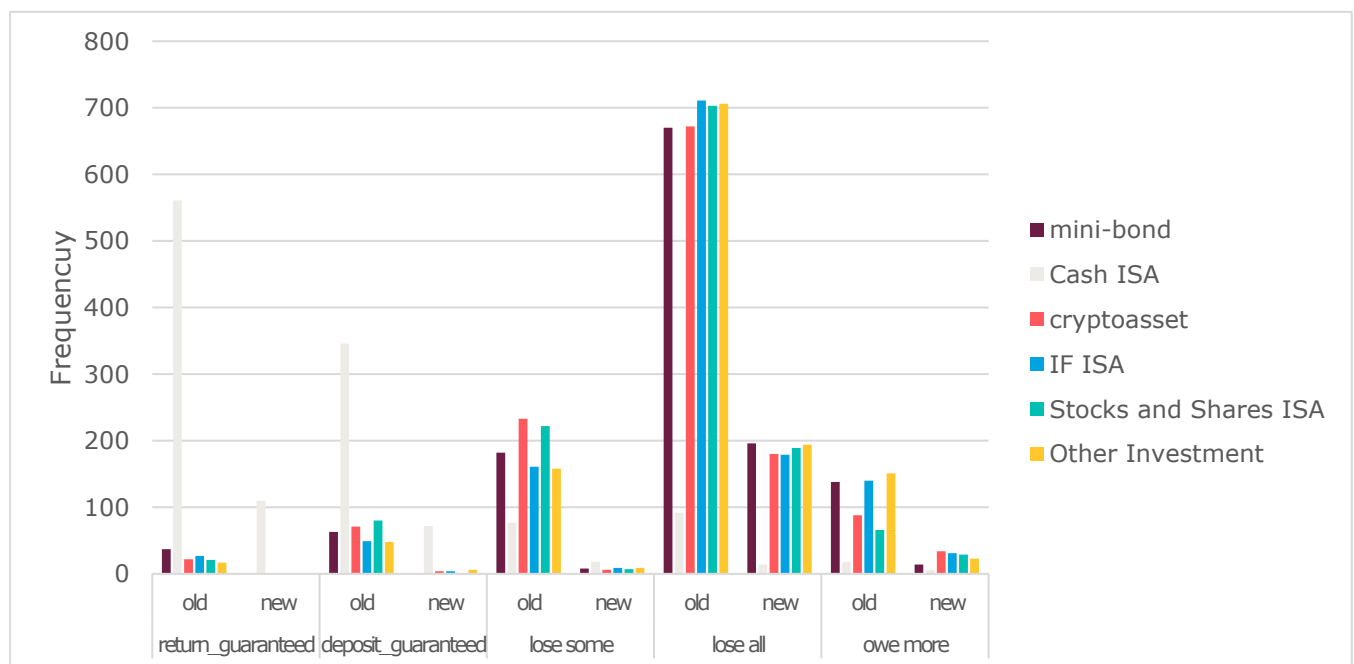


Figure 7.2 Perceived FSCS cover (Experiment 2, Wave 1) under different risk warning conditions (old and new)



Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Figure 7.3 Frequency that participants identified different product types with a level of investment risk (Experiment 2, Wave 2) when different risk warnings were directly compared

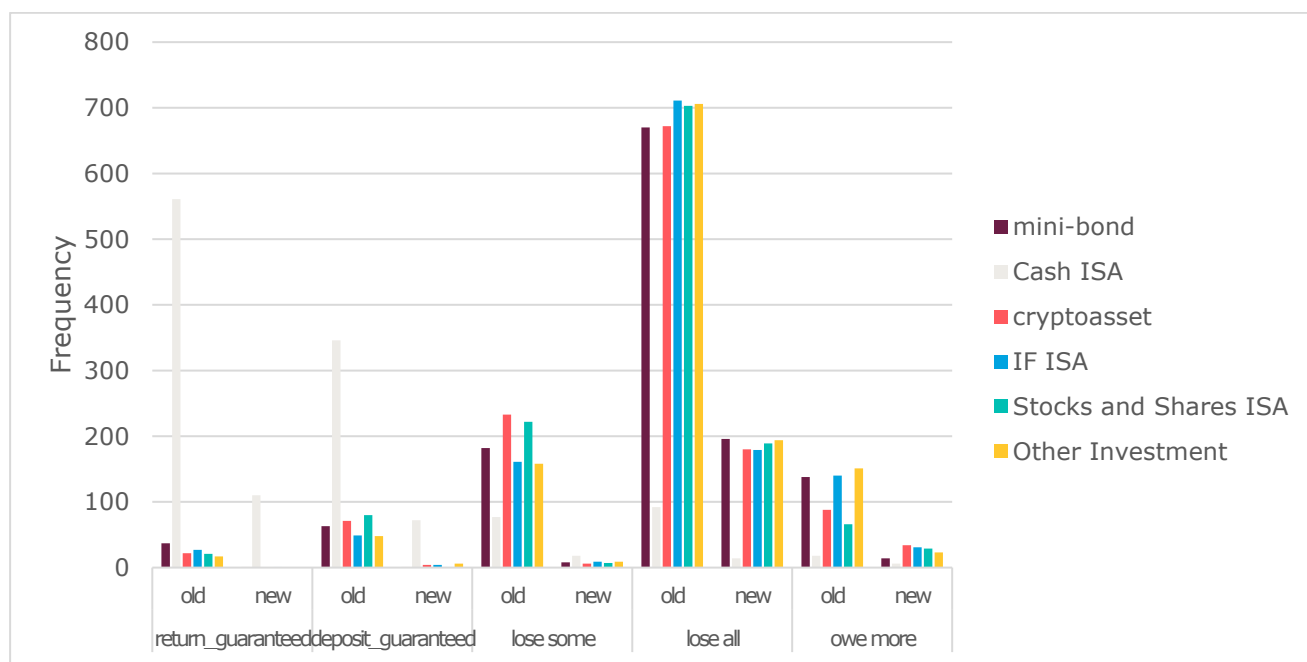
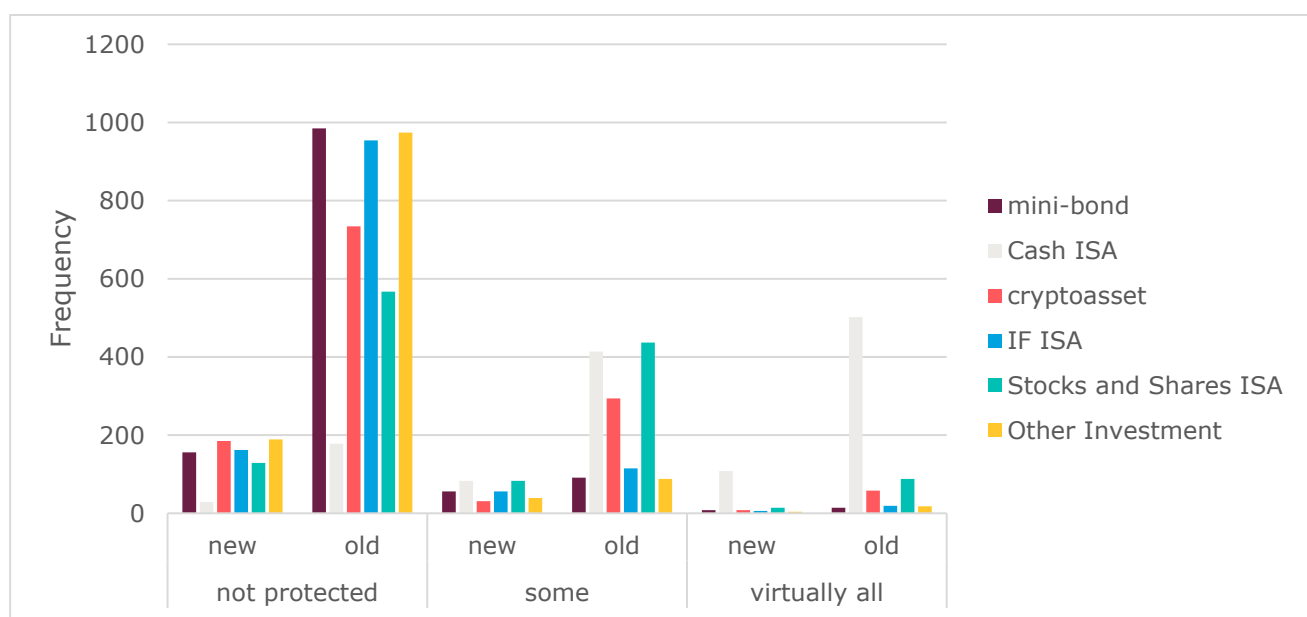


Figure 7.4 Perceived FSCS cover (Experiment 2, wave 2)



Annex 8: Results tables

The regression results from our experiments are reported in this Annex. Table 8.0 provides a dictionary of coefficient names, whilst Table 8.1-Table 8.4 report results from Experiment 1, Table 8.5-8.9 report results from Experiment 2 (Wave 1) and Table 8.10 – Table 8.14 report results from Experiment 2 (Wave 2).

Table 8.0 Dictionary of coefficient names

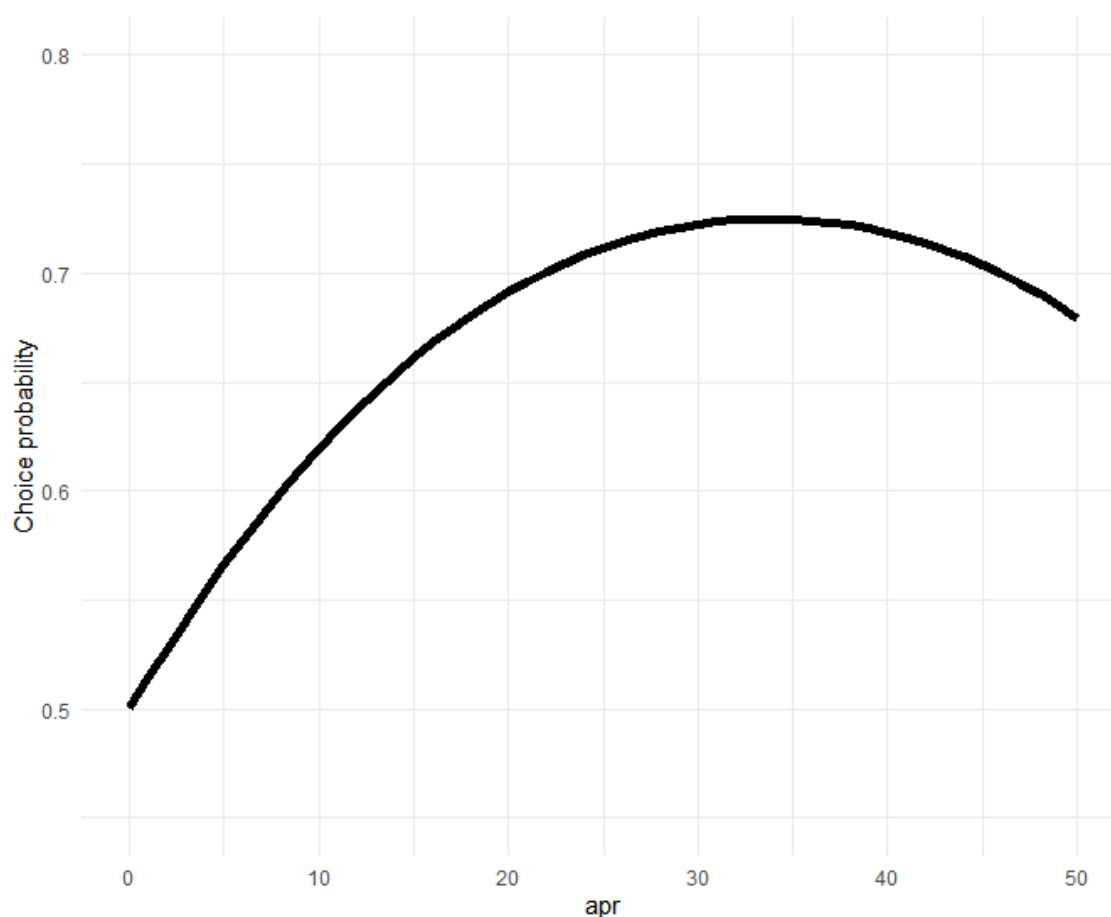
Coefficient	Variable
APR difference	Difference in advertised rate of return between two promotions seen in a pair
APR item 1	Advertised rate of return of promotion seen on the left
APR item 1 quadratic	Quadratic specification of advertised rate of return for promotion seen on the left
APR item 2	Advertised rate of return of promotion seen on the right
APR item 2 quadratic	Quadratic specification of advertised rate of return for promotion seen on the right
Risk attitude	Self-reported risk attitude (Likert scale)
APR difference*Risk attitude	Interaction term – difference in rate of return and self-reported risk attitude
APR item 1/2 * Risk attitude	Interaction term – rate of return for promotion seen on the left/right and self-reported risk attitude
APR item 1/2 quadratic * Risk attitude	Interaction term –quadratic specification of rate of return for promotion seen on the left/right and self-reported risk attitude
Gender (M)	Dummy variable – 1 participant is male, 0, participant is female
APR item 1/2 * Gender (M)	Interaction term – rate of return for promotion seen on the left/right and Gender (M)
APR item 1/2 quadratic * Gender (M)	Interaction term –quadratic specification of rate of return for promotion seen on the left/right and Gender (M)
TPI warning	Dummy variable – 1 new TPI risk warning, 0 old risk warning
APR item 1/2 * TPI warning	Interaction term – rate of return for promotion seen on the left/right and TPI warning
APR item 1/2 quadratic * TPI warning	Interaction term –quadratic specification of rate of return for promotion seen on the left/right and TPI warning
Example: Minibond * TPI warning	Interaction terms for all product types and dummy variable for new risk warning
Example: Cash ISA pre-exposed	Dummy variable – 1, product type previously seen, 0 product type not previously seen. For example, Cash ISA pre-exposed = 1 if a participant made an earlier choice between a pair of products that included a Cash ISA before later rating the riskiness of a random sample of product types.

Table 8.1: Experiment 1 – logistic regression predicting choice of Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds and other investment products compared to a Cash ISA baseline

	<i>Dependent variable:</i>		
	Participant choice		
	(1)	(2)	(3)
(Intercept)	0.248*** (0.179, 0.316)	0.340*** (0.245, 0.435)	0.462*** (0.356, 0.568)
APR difference		0.011*** (0.007, 0.015)	
APR item 1			12.201*** (7.934, 16.467)
APR item 1 quadratic			-11.779*** (-16.486, -7.071)
APR item 2			-7.567*** (-11.589, -3.545)
APR item 2 quadratic			8.735*** (4.711, 12.758)
Mini-bonds	-0.078 (-0.175, 0.019)	-0.157* (-0.287, -0.027)	-0.344*** (-0.492, -0.196)
IFISA	-0.160** (-0.256, -0.063)	-0.199** (-0.328, -0.071)	-0.396*** (-0.545, -0.247)
S&S ISA	-0.480*** (-0.578, -0.383)	-0.845*** (-0.990, -0.700)	-0.944*** (-1.095, -0.794)
Other Investment	-0.634*** (-0.732, -0.536)	-0.944*** (-1.095, -0.794)	-1.039*** (-1.196, -0.881)
Observations	16,440	8,591	8,591
Log Likelihood	-11,273.060	-5,810.128	-5,788.833
Akaike Inf. Crit.	22,556.110	11,632.260	11,595.670
Note:	* p<0.05; ** p<0.01; *** p<0.001		

Figure 2. Relationship between advertised rate of return and predicted probability of choosing a product. For Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds and other investment products compared to a Cash ISA baseline – (estimations based on specification (3) from Table 8.1.)

There were very few adverts included in the experiment with very high rates of return, so the inflection point is not estimated with high confidence.



Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

Table 8.2: Experiment 1 – logistic regression predicting accuracy of identifying investment product risk for Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds and other investment products compared to a Cash ISA baseline.

	<i>Dependent variable:</i>
	Correct risk estimate
Intercept	1.331*** (1.134, 1.528)
Minibonds	-1.936*** (-2.209, -1.664)
IFISA	-1.510*** (-1.766, -1.254)
S&S ISA	-1.314*** (-1.568, -1.060)
Other Investment	-1.464*** (-1.729, -1.200)
Observations	2,749
Log Likelihood	-1,773.359
Akaike Inf. Crit.	3,556.719
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

Table 8.3: Experiment 1 – logistic regression predicting choice of Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds and other investment products compared to a Cash ISA baseline including participants' self-stated risk propensity as a predictor

	<i>Dependent variable:</i>		
	Participant choice		
	(1)	(2)	(3)
Intercept	-0.099** (-0.169, -0.029)	-0.089 (-0.188, 0.009)	-0.087 (-0.186, 0.011)
APR difference		0.005 (-0.004, 0.013)	
APR item 1			-1.527 (-10.861, 7.807)
APR item 2			-3.415 (-13.090, 6.260)
APR item 1 quadratic			-9.267 (-18.713, 0.180)
APR item 2 quadratic			5.914 (-4.028, 15.856)
Risk attitude	0.023* (0.004, 0.043)	0.020 (-0.008, 0.047)	0.019 (-0.009, 0.046)
Minibond	-0.231** (-0.370, -0.091)	-0.255** (-0.441, -0.068)	-0.307** (-0.512, -0.102)
IFISA	-0.351*** (-0.491, -0.212)	-0.307** (-0.491, -0.122)	-0.357*** (-0.564, -0.151)
S&S ISA	-0.642*** (-0.782, -0.501)	-1.144*** (-1.362, -0.927)	-1.169*** (-1.392, -0.946)
Other investment	-0.660*** (-0.801, -0.519)	-0.817*** (-1.041, -0.594)	-0.831*** (-1.058, -0.604)
APR difference * Risk attitude		0.003* (0.0005, 0.005)	
APR item 1 * Risk attitude			4.167** (1.571, 6.763)
APR item 2 * Risk attitude			-2.095 (-4.792, 0.602)
APR item 1 quadratic * Risk attitude			-0.939 (-3.489, 1.611)
APR item 2 quadratic * Risk attitude			0.792

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

			(-1.946, 3.530)
Minibond * Risk attitude	0.061** (0.022, 0.100)	0.041 (-0.011, 0.093)	0.023 (-0.034, 0.080)
IFISA * Risk attitude	0.083*** (0.045, 0.122)	0.057* (0.006, 0.108)	0.037 (-0.021, 0.094)
S&S ISA * Risk attitude	0.092*** (0.053, 0.131)	0.135*** (0.075, 0.195)	0.125*** (0.064, 0.186)
Other investment * Risk attitude	0.054** (0.015, 0.093)	0.006 (-0.057, 0.069)	-0.004 (-0.067, 0.060)
Observations	16,440	8,591	8,591
Log Likelihood	-11,192.960	-5,705.919	-5,687.516
Akaike Inf. Crit.	22,405.910	11,435.840	11,411.030
<i>Note:</i>		*p<0.05; **p<0.01; ***p<0.001	

Table 8.4: Experiment 1 – logistic regression predicting choice of Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds and other investment products compared to a Cash ISA baseline including participants' gender as a predictor

	<i>Dependent variable:</i>		
	Participant choice		
	(1)	(2)	(3)
Intercept	-0.039 [*] (-0.077, -0.002)	-0.058 [*] (-0.111, -0.006)	-0.059 [*] (-0.112, -0.006)
APR difference		0.014 ^{***} (0.010, 0.019)	
APR item 1			12.101 ^{***} (7.024, 17.179)
APR item 2			-9.829 ^{***} (-15.086, -4.571)
APR item 1 quadratic			-12.905 ^{***} (-17.907, -7.904)
APR item 2 quadratic			7.547 ^{**} (2.283, 12.810)
Gender (M)	0.049 (-0.018, 0.116)	0.104 [*] (0.010, 0.198)	0.102 [*] (0.007, 0.196)
Minibond	-0.085 [*] (-0.160, -0.010)	-0.180 ^{***} (-0.280, -0.080)	-0.283 ^{***} (-0.394, -0.172)
IFISA	-0.126 ^{***} (-0.201, -0.052)	-0.171 ^{***} (-0.270, -0.071)	-0.279 ^{***} (-0.391, -0.168)
S&S ISA	-0.396 ^{***} (-0.472, -0.321)	-0.800 ^{***} (-0.916, -0.684)	-0.853 ^{***} (-0.971, -0.734)
Other invest	-0.543 ^{***} (-0.618, -0.467)	-0.852 ^{***} (-0.973, -0.731)	-0.893 ^{***} (-1.015, -0.771)
APR difference * Gender (M)		-0.003 (-0.011, 0.005)	
APR item 1 * Gender (M)			-1.137 (-9.971, 7.697)
APR item 2 * Gender (M)			-1.462 (-10.996, 8.072)
APR item 1 quadratic * Gender (M)			2.874 (-6.132, 11.881)
APR item 2 quadratic * Gender (M)			2.975

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

			(-6.493, 12.442)
Minibond * Gender (M)	0.159*	0.179*	0.154
	(0.026, 0.291)	(0.002, 0.357)	(-0.043, 0.351)
IFISA * Gender (M)	0.131	0.151	0.123
	(-0.002, 0.264)	(-0.024, 0.327)	(-0.075, 0.321)
S&S ISA * Gender (M)	0.148*	0.276**	0.263*
	(0.015, 0.281)	(0.071, 0.482)	(0.052, 0.473)
Other investment * Gender (M)	0.173*	0.172	0.161
	(0.039, 0.307)	(-0.043, 0.388)	(-0.058, 0.380)
Observations	16,380	8,559	8,559
Log Likelihood	-11,161.570	-5,691.529	-5,675.676
Akaike Inf. Crit.	22,343.130	11,407.060	11,387.350
<i>Note:</i>		*p<0.05; **p<0.01; ***p<0.001	

Table 8.5: Experiment 2 (wave 1) logistic regression predicting choice of Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds, cryptoassets and other investment products compared to a Cash ISA baseline under the risk warning treatment

	<i>Dependent variable:</i>		
	Participant choice		
	(1)	(2)	(3)
Intercept	-0.027 (-0.053, 0.0001)	-0.027 (-0.053, 0.00001)	-0.027 (-0.053, 0.0001)
APR difference		0.004** (0.001, 0.007)	
APR item 1			8.278** (2.789, 13.766)
APR item 2			-1.267 (-6.691, 4.157)
APR item 1 quadratic			-3.840 (-9.377, 1.697)
APR item 2 quadratic			5.520* (0.068, 10.971)
TPI warning	-0.016 (-0.055, 0.023)	-0.015 (-0.054, 0.024)	-0.016 (-0.055, 0.023)
Minibond	-0.073* (-0.133, -0.013)	-0.092** (-0.153, -0.031)	-0.098** (-0.159, -0.036)
crypto	-0.080** (-0.139, -0.020)	-0.100** (-0.161, -0.039)	-0.106*** (-0.168, -0.045)
IFISA	0.014 (-0.045, 0.074)	-0.005 (-0.066, 0.056)	-0.012 (-0.074, 0.049)
S&S ISA	-0.052 (-0.111, 0.008)	-0.072* (-0.133, -0.011)	-0.079* (-0.140, -0.017)
Other invest	-0.054 (-0.113, 0.006)	-0.073* (-0.134, -0.012)	-0.080* (-0.142, -0.019)
APR difference * TPI warning		0.009*** (0.005, 0.014)	
APR item 1 * TPI warning			9.062* (0.984, 17.139)
APR item 2 * TPI warning			-4.779 (-12.713, 3.154)
APR item 1 quadratic * TPI warning			-15.214***

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

			(-23.277, -7.150)
APR item 2 quadratic * TPI warning			3.365
			(-4.567, 11.298)
Minibond * TPI warning	-0.007	-0.058	-0.068
	(-0.094, 0.081)	(-0.148, 0.032)	(-0.158, 0.023)
Crypto * TPI warning	-0.193***	-0.242***	-0.250***
	(-0.280, -0.105)	(-0.332, -0.152)	(-0.340, -0.159)
IFISA * TPI warning	0.026	-0.021	-0.028
	(-0.061, 0.113)	(-0.110, 0.069)	(-0.118, 0.062)
S&S ISA * TPI warning	-0.058	-0.109*	-0.114*
	(-0.145, 0.029)	(-0.199, -0.019)	(-0.205, -0.024)
Other investment * TPI warning	0.006	-0.039	-0.048
	(-0.081, 0.093)	(-0.128, 0.051)	(-0.138, 0.042)
Observations	40,740	40,740	40,740
Log Likelihood	-28,167.460	-28,127.450	-28,117.760
Akaike Inf. Crit.	56,358.920	56,282.890	56,275.530
Note:	*p<0.05; **p<0.01; ***p<0.001		

Table 8.6 - Experiment 2 (wave 1) logistic regression predicting accuracy of identifying investment product risk for Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds, cryptoassets and other investment products compared to a Cash ISA baseline under the risk warning treatment

	<i>Dependent variable:</i>
	Correct risk estimate
Intercept	1.538*** (1.347, 1.729)
product_type_1Bonds	-1.350*** (-1.590, -1.109)
product_type_1Crypto	-1.300*** (-1.540, -1.059)
product_type_1IFISA	-1.288*** (-1.529, -1.047)
product_type_1InvestmentISA	-1.394*** (-1.635, -1.154)
product_type_1OtherInvestment	-1.344*** (-1.585, -1.104)
condTPI	0.164 (-0.123, 0.451)
product_type_1Bonds:condTPI	1.583*** (1.186, 1.981)
product_type_1Crypto:condTPI	1.605*** (1.204, 2.007)
product_type_1IFISA:condTPI	0.740*** (0.370, 1.109)

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

product_type_1InvestmentISA:condTPI	1.700*** (1.299, 2.101)
product_type_1OtherInvestment:condTPI	1.563*** (1.167, 1.960)
Observations	8,196
Log Likelihood	-4,413.057
Akaike Inf. Crit.	8,850.114
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

Table 8.7. Experiment 2 (wave 1) Multinomial regression predicting participants estimates of general risk for different product types, with “lose some” as the reference category response.

	<i>Dependent variable:</i>			
	return_guaranteed (1)	deposit_guaranteed (2)	lose all (3)	owe more (4)
Intercept	1.688*** (1.425, 1.951)	1.287*** (1.014, 1.559)	-0.319 (-0.691, 0.053)	-1.551*** (-2.128, -0.974)
product_type_1Bonds	-2.882*** (-3.322, -2.441)	-1.995*** (-2.398, -1.592)	1.417*** (0.997, 1.838)	1.179*** (0.544, 1.815)
product_type_1Crypto	-3.366*** (-3.848, -2.885)	-1.891*** (-2.274, -1.508)	1.312*** (0.896, 1.728)	0.618 (-0.032, 1.269)
product_type_1IFISA	-3.359*** (-3.860, -2.858)	-1.914*** (-2.311, -1.518)	1.437*** (1.017, 1.857)	1.138*** (0.502, 1.775)
S&S ISA pre-exposed	-3.395*** (-3.859, -2.931)	-1.896*** (-2.267, -1.524)	1.138*** (0.725, 1.551)	0.123 (-0.547, 0.793)
product_type_1OtherInvestment	-3.464*** (-3.996, -2.932)	-1.964*** (-2.372, -1.556)	1.483*** (1.060, 1.905)	1.510*** (0.881, 2.140)
condTPI	0.670** (0.235, 1.105)	0.311 (-0.143, 0.765)	0.715* (0.147, 1.282)	0.480 (-0.393, 1.354)
product_type_1Bonds:condTPI	-0.130 (-1.004, 0.744)	-0.256 (-1.118, 0.606)	1.298*** (0.576, 2.020)	0.074 (-0.982, 1.131)
product_type_1Crypto:condTPI	-0.602 (-1.829, 0.625)	-0.400 (-1.324, 0.525)	1.635*** (0.890, 2.381)	1.195* (0.129, 2.261)
product_type_1IFISA:condTPI	-0.573 (-1.642, 0.496)	-0.971* (-1.920, -0.021)	0.990** (0.283, 1.698)	1.275* (0.274, 2.276)
product_type_1InvestmentISA:condTPI	-0.195 (-1.217, 0.827)	-0.315 (-1.167, 0.537)	1.626*** (0.905, 2.348)	1.235* (0.159, 2.312)
product_type_1OtherInvestment:condTPI	-0.643 (-1.880, 0.594)	-0.371 (-1.274, 0.531)	1.314*** (0.582, 2.046)	0.209 (-0.830, 1.249)
Akaike Inf. Crit.	15,873.680	15,873.680	15,873.680	15,873.680
<i>Note:</i>			* p<0.05; ** p<0.01; *** p<0.001	

Table 8.8. Experiment 2 (wave 1) Logistic regression predicting the accuracy of participants estimates of FSCS cover for different product types.

	<i>Dependent variable:</i>
	Correct about FSCS cover
Intercept	-1.808*** (-2.017, -1.599)
product_type_1Bonds	3.773*** (3.468, 4.078)
product_type_1Crypto	1.825*** (1.569, 2.080)
product_type_1IFISA	3.639*** (3.342, 3.936)
product_type_1InvestmentISA	1.300*** (1.042, 1.558)
product_type_1OtherInvestment	4.011*** (3.690, 4.332)
condTPI	0.296* (0.006, 0.587)
product_type_1Bonds:condTPI	-1.133*** (-1.541, -0.726)
product_type_1Crypto:condTPI	1.438*** (1.047, 1.829)
product_type_1IFISA:condTPI	-1.049*** (-1.450, -0.649)
product_type_1InvestmentISA:condTPI	1.108*** (0.740, 1.477)
product_type_1OtherInvestment:condTPI	-1.090*** (-1.516, -0.664)
Observations	8,196
Log Likelihood	-4,068.036
Akaike Inf. Crit.	8,160.073
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

Table 8.9 Experiment 2 (wave 1) Multinomial regression predicting participants estimates of FSCS cover for different product types.

	<i>Dependent variable:</i>	
	some (1)	virtually all (2)
Constant	0.962*** (0.734, 1.190)	1.247*** (1.027, 1.467)
product_type_1Bonds	-3.125*** (-3.458, -2.793)	-4.928*** (-5.471, -4.385)
product_type_1Crypto	-1.203*** (-1.478, -0.927)	-2.870*** (-3.206, -2.535)
product_type_1IFISA	-2.956*** (-3.277, -2.634)	-4.975*** (-5.533, -4.418)
product_type_1InvestmentISA	-0.688*** (-0.965, -0.410)	-2.310*** (-2.631, -1.988)
product_type_1OtherInvestment	-3.365*** (-3.715, -3.014)	-5.162*** (-5.754, -4.571)
condTPI	-0.313 (-0.633, 0.007)	-0.284 (-0.591, 0.023)
product_type_1Bonds:condTPI	1.054*** (0.605, 1.504)	1.470*** (0.803, 2.136)
product_type_1Crypto:condTPI	-1.474*** (-1.906, -1.042)	-1.262*** (-1.838, -0.686)
product_type_1IFISA:condTPI	0.889*** (0.447, 1.330)	1.690*** (1.022, 2.358)
product_type_1InvestmentISA:condTPI	-1.164*** (-1.569, -0.759)	-0.884*** (-1.370, -0.399)
product_type_1OtherInvestment:condTPI	1.044*** (0.575, 1.514)	1.320*** (0.588, 2.052)
Akaike Inf. Crit.	11,638.250	11,638.250
Note:	*p<0.05; **p<0.01; ***p<0.001	

Table 8.10 Experiment 2 (wave 2) logistic regression predicting choice of Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds, cryptoassets and other investment products compared to a Cash ISA baseline under direct comparison of new to old risk warning

	<i>Dependent variable:</i>		
	Participant choice		
	(1)	(2)	(3)
Intercept	0.090*** (0.042, 0.138)	0.093*** (0.044, 0.141)	0.092*** (0.043, 0.140)
APR difference		0.008** (0.002, 0.014)	
APR item 1			5.934 (-0.003, 11.870)
APR item 2			-1.599 (-7.326, 4.127)
TPI warning	-0.217*** (-0.285, -0.149)	-0.220*** (-0.288, -0.152)	-0.221*** (-0.289, -0.152)
APR item 1			-7.627** (-13.417, -1.838)
APR item 2			13.084*** (7.344, 18.824)
Minibond	-0.079 (-0.188, 0.030)	-0.125* (-0.239, -0.012)	-0.165** (-0.281, -0.049)
Crypto	-0.126* (-0.231, -0.021)	-0.178** (-0.288, -0.067)	-0.218*** (-0.332, -0.105)
IFISA	0.075 (-0.032, 0.182)	0.022 (-0.091, 0.135)	-0.012 (-0.127, 0.103)
S&S ISA	-0.056 (-0.161, 0.049)	-0.107 (-0.217, 0.004)	-0.143* (-0.257, -0.030)
Other invest	-0.066 (-0.172, 0.040)	-0.115* (-0.226, -0.004)	-0.166** (-0.281, -0.051)
APR difference *TPI warning		-0.001 (-0.009, 0.006)	
APR item 1 *TPI warning			3.669 (-4.586, 11.924)
APR item 2 *TPI warning			-8.911*

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

			(-16.947, - 0.875)
condTPI:poly(r_apr, 2)1			6.562 (-1.729, 14.853)
condTPI:poly(r_apr, 2)2			-11.899** (-19.948, - 3.851)
Minibond *TPI warning	0.032 (-0.121, 0.184)	0.040 (-0.119, 0.199)	0.047 (-0.116, 0.210)
Crypto *TPI warning	-0.041 (-0.188, 0.105)	-0.033 (-0.188, 0.123)	-0.021 (-0.181, 0.139)
IFISA *TPI warning	-0.071 (-0.221, 0.079)	-0.061 (-0.220, 0.098)	-0.057 (-0.220, 0.105)
S&S ISA *TPI warning	-0.112 (-0.259, 0.036)	-0.101 (-0.256, 0.055)	-0.089 (-0.248, 0.070)
Other invest * TPI warning	-0.023 (-0.172, 0.127)	-0.016 (-0.174, 0.141)	0.002 (-0.160, 0.164)
Observations	13,460	13,460	13,460
Log Likelihood	-9,291.391	-9,284.653	-9,265.850
Akaike Inf. Crit.	18,606.780	18,597.310	18,571.700
<i>Note:</i>		* p<0.05; ** p<0.01; *** p<0.001	

Table 8.11 Experiment 2 (wave 2) logistic regression predicting accuracy of identifying product risk for Stocks and Shares (S&S) ISA, Innovative Finance (IF) ISA, Mini-bonds, cryptoassets and other investment products compared to a Cash ISA baseline under direct comparison of new to old risk warning

	<i>Dependent variable:</i>
	Correct risk estimate
Intercept	0.052 (-0.083, 0.187)
product_type_1Bonds	0.377*** (0.186, 0.568)
product_type_1Crypto	0.472*** (0.279, 0.665)
product_type_1IFISA	0.552*** (0.359, 0.745)
product_type_1InvestmentISA	0.528*** (0.334, 0.722)
product_type_1OtherInvestment	0.607*** (0.413, 0.801)
`Cash ISA pre-exposed	-0.005 (-0.286, 0.277)
Minibond pre-exposed	0.200 (-0.114, 0.515)
Crypto pre-exposed	-0.194 (-0.495, 0.107)
IFISA pre-exposed	0.164

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

	(-0.163, 0.491)
S&S ISA pre-exposed	0.054
	(-0.252, 0.360)
Other investment pre-exposed	-0.132
	(-0.455, 0.191)
`Cash ISA pre-exposed TPI`	-0.048
	(-0.409, 0.314)
Minibond pre-exposed TPI	1.471***
	(0.960, 1.981)
Crypto pre-exposed TPI	1.079***
	(0.654, 1.503)
IFISA pre-exposed TPI	0.612**
	(0.171, 1.054)
S&S ISA pre-exposed TPI	0.996***
	(0.551, 1.442)
Other investment pre-exposed TPI	1.103***
	(0.649, 1.556)
<hr/>	
Observations	7,876
Log Likelihood	-4,969.662
Akaike Inf. Crit.	9,975.323

Note: * p<0.05; ** p<0.01; *** p<0.001

Table 8.12 Experiment 2 (wave 2) Multinomial regression predicting participants estimates of general risk for different product types with a baseline category of “lose some”.

	<i>Dependent variable:</i>			
	return_guaranteed	deposit_guaranteed	lose all	owe more
	(1)	(2)	(3)	(4)
Intercept	1.941*** (1.675, 2.207)	1.410*** (1.133, 1.688)	0.217 (-0.118, 0.551)	-1.294*** (-1.831, -0.757)
product_type_1Bonds	-3.371*** (-3.830, -2.912)	-2.415*** (-2.837, -1.993)	1.106*** (0.724, 1.488)	1.117*** (0.528, 1.707)
product_type_1Crypto	-4.437*** (-5.027, -3.847)	-2.589*** (-2.997, -2.180)	0.878*** (0.504, 1.253)	0.324 (-0.280, 0.928)
product_type_1IFISA	-3.702*** (-4.227, -3.177)	-2.501*** (-2.944, -2.058)	1.282*** (0.897, 1.668)	1.230*** (0.638, 1.821)
product_type_1InvestmentISA	-4.204*** (-4.758, -3.651)	-2.469*** (-2.873, -2.065)	0.947*** (0.572, 1.323)	0.218 (-0.394, 0.831)
product_type_1OtherInvestment	-4.004*** (-4.604, -3.404)	-2.420*** (-2.866, -1.974)	1.383*** (0.994, 1.771)	1.360*** (0.767, 1.952)
Cash ISA pre-exposed	0.210 (-0.387, 0.808)	0.403 (-0.209, 1.016)	-0.217 (-1.007, 0.573)	-1.416 (-3.513, 0.680)
Minibond pre-exposed	-1.161 (-2.392, 0.071)	-0.286 (-1.025, 0.453)	-0.092 (-0.489, 0.306)	-0.568 (-1.166, 0.030)
Crypto pre-exposed	0.510 (-0.439, 1.459)	-0.045 (-0.694, 0.604)	-0.175 (-0.540, 0.191)	-0.018 (-0.613, 0.578)
IFISA pre-exposed	-0.126 (-1.170, 0.918)	-0.614 (-1.550, 0.322)	-0.068 (-0.493, 0.357)	-0.436 (-1.045, 0.172)
S&S ISA pre-exposed	-0.530 (-1.793, 0.732)	0.163 (-0.434, 0.760)	-0.052 (-0.417, 0.313)	-0.870* (-1.715, -0.025)
Other investment pre-exposed	-0.933 (-2.452, 0.585)	-1.070* (-2.063, -0.077)	-0.484* (-0.892, -0.076)	-0.536 (-1.095, 0.023)
Cash ISA pre-exposed TPI	-0.341 (-1.072, 0.390)	-0.427 (-1.179, 0.324)	-0.251 (-1.251, 0.749)	1.612 (-0.615, 3.839)
Minibond pre-exposed TPI	0.510 (-1.878, 2.898)	-0.790 (-2.974, 1.395)	1.967*** (1.178, 2.757)	1.304* (0.278, 2.330)
Crypto pre-exposed TPI	-10.343*** (-10.343, -10.343)	0.819 (-0.571, 2.209)	2.481*** (1.605, 3.357)	2.722*** (1.707, 3.737)
IFISA pre-exposed TPI	-0.312 (-2.583, 1.960)	0.894 (-0.571, 2.358)	1.559*** (0.790, 2.329)	1.738*** (0.811, 2.664)
S&S ISA pre-exposed TPI	-9.778*** (-9.778, -9.778)	-1.050 (-3.210, 1.109)	2.184*** (1.363, 3.004)	3.367*** (2.224, 4.511)
Other investment pre-exposed TPI	-10.276*** (-10.276, -10.276)	1.675* (0.285, 3.064)	1.956*** (1.198, 2.714)	1.409** (0.490, 2.327)
Akaike Inf. Crit.	16,162.010	16,162.010	16,162.010	16,162.010

Note:

*p<0.05; **p<0.01; ***p<0.001

Table 8.13 Experiment 2 (wave 2) Logistic regression predicting the accuracy of participants estimates of FSCS cover for different product types.

	<i>Dependent variable:</i>
	Correct about FSCS cover
Intercept	-1.612*** (-1.794, -1.431)
product_type_1Bonds	3.929*** (3.635, 4.222)
product_type_1Crypto	2.404*** (2.173, 2.636)
product_type_1IFISA	3.545*** (3.277, 3.814)
product_type_1InvestmentISA	1.719*** (1.494, 1.944)
product_type_1OtherInvestment	3.869*** (3.580, 4.157)
Cash ISA pre-exposed	-0.116 (-0.506, 0.274)
Minibond pre-exposed	-0.360 (-0.831, 0.112)
Crypto pre-exposed	-0.271 (-0.580, 0.038)
IFISA pre-exposed	0.169 (-0.316, 0.654)
S&S ISA pre-exposed	-0.142 (-0.434, 0.150)
Other investment pre-exposed	-0.200 (-0.697, 0.298)
Cash ISA pre-exposed TPI	-0.157 (-0.678, 0.365)
Minibond pre-exposed TPI	-1.066*** (-1.569, -0.563)
Crypto pre-exposed TPI	1.036*** (0.596, 1.477)
IFISA pre-exposed TPI	-1.141***

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

	(-1.672, -0.611)
S&S ISA pre-exposed TPI	0.320
	(-0.050, 0.690)
Other investment pre-exposed TPI	-0.576*
	(-1.130, -0.022)
<hr/>	
Observations	7,876
Log Likelihood	-3,740.283
Akaike Inf. Crit.	7,516.567
<hr/>	
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001

Table 8.14 Experiment 2 (wave 2) Multinomial regression predicting participants estimates of FSCS cover for different product types

	<i>Dependent variable:</i>	
	some (1)	virtually all (2)
Intercept	0.805*** (0.605, 1.004)	1.022*** (0.829, 1.215)
product_type_1Bonds	-3.286*** (-3.605, -2.967)	-5.224*** (-5.826, -4.622)
product_type_1Crypto	-1.783*** (-2.035, -1.532)	-3.584*** (-3.941, -3.227)
product_type_1IFISA	-2.871*** (-3.161, -2.582)	-5.033*** (-5.596, -4.471)
product_type_1InvestmentISA	-1.093*** (-1.337, -0.849)	-2.923*** (-3.243, -2.603)
product_type_1OtherInvestment	-3.243*** (-3.559, -2.928)	-5.069*** (-5.632, -4.507)
Cash ISA pre-exposed	0.173 (-0.250, 0.595)	0.068 (-0.348, 0.483)
Minibond pre-exposed	0.444 (-0.049, 0.937)	-0.321 (-1.827, 1.185)
Crypto pre-exposed	0.300 (-0.026, 0.626)	0.120 (-0.542, 0.782)
IFISA pre-exposed	-0.292 (-0.832, 0.247)	0.426 (-0.608, 1.461)
S&S ISA pre-exposed	0.134 (-0.173, 0.441)	0.178 (-0.362, 0.717)
Other investment pre-exposed	0.181 (-0.362, 0.725)	0.286 (-0.837, 1.409)
`Cash ISA pre-exposed TPI`	0.075 (-0.489, 0.638)	0.225 (-0.325, 0.776)
Minibond pre-exposed TPI	1.013*** (0.489, 1.536)	1.552 (-0.012, 3.117)
Crypto pre-exposed TPI	-1.108*** (-1.585, -0.631)	-0.699 (-1.621, 0.222)
IFISA pre-exposed TPI	1.297*** (0.714, 1.879)	0.290 (-0.916, 1.495)

Research Note

Choosing wisely: preferences, comprehension and the effect of risk warnings on financial promotions for investment products

S&S ISA pre-exposed TPI	-0.287 (-0.674, 0.101)	-0.497 (-1.226, 0.231)
Other investment pre-exposed TPI	0.679* (0.084, 1.275)	-0.095 (-1.497, 1.306)
Akaike Inf. Crit.	10,384.300	10,384.300
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

