Financial Conduct Authority

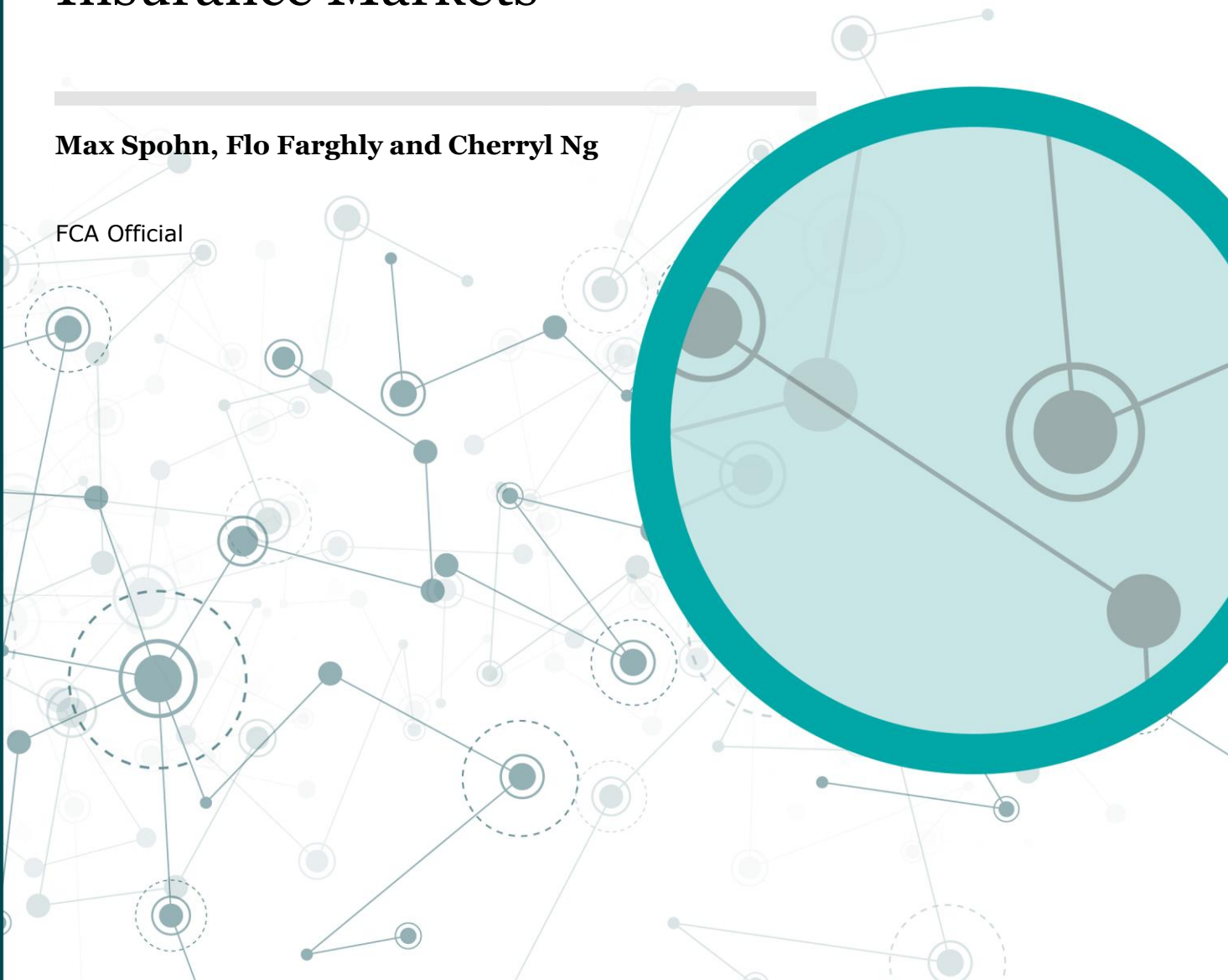# Research Note

Discounts, Cashbacks, and Soft Toys: The Impact of Promotions on Consumer Decisions in the General Insurance Markets

Max Spohn, Flo Farghly and Cherryl Ng

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1   Overview

Summary

We conducted an online experiment simulating the experience of purchasing insurance, to understand how promotions could impact price comprehension and decision making in the general insurance market. We find that cash discounts and promotions that closely resemble cash, such as retail vouchers, loyalty points and cashbacks, significantly undermined participants' ability to select the best insurance deal and correctly assess policy premiums. Participants in the experiment were particularly attracted to promotions that included a pound sign or a percent sign, and found discounts incorporated into the underlying policy prices challenging to evaluate. The results of this experiment informed FCA's General Insurance Pricing Practices Final Rules (PS21/5).

Equality and diversity considerations

We have considered the equality and diversity issues that may arise from the findings in this Research Note.

Overall, we do not consider that the findings in this Research Note adversely impact any of the groups with protected characteristics i.e. age, disability, sex, marriage or civil partnership, pregnancy and maternity, race, religion and belief, sexual orientation and gender reassignment.

2   Introduction

To address the issue of the loyalty penalty in the insurance market, the FCA proposed a ban on price walking which would require firms to offer renewing customers a price which is no higher than they would pay as a new customer. At the same time, the FCA recognised that firms' use of non-cash promotions could frustrate the proposed remedy. To understand how promotions might impact price comprehension and decision making we conducted an online experiment simulating the experience of purchasing insurance.

This experiment aims to answer three central questions. Firstly, we investigate the impact of cash and non-cash promotions on consumer decision making. Secondly, if promotions do affect consumers' ability to choose the best insurance deal, we want to understand the mechanisms that drive this effect better. The two mechanisms we focus on are price complexity and misdirected attention. Promotions – in particular those with a clear monetary value – could reduce consumers' price comprehension by increasing the cognitive effort required to calculate the underlying cost of insurance. Equally, and perhaps simultaneously, promotions could simply attract attention and distract consumers from important attributes of insurance policies such as price. Lastly, we want to explore the individual impact of specific promotions, such as free gifts, nominal discounts, cashbacks and others, on decision making.

This research differs from previous literature and FCA work. To date, behavioural scientists – and the FCA (see Adams et al., 2015) – have predominately focused on consumer decisions at renewal. The literature shows that inertia, convenience and status-quo bias are powerful drivers of insurance decisions, either through defaults (e.g. Krieger & Felder, 2013; Robinson et al., 2021), or automatic renewals (Handel, 2013). The present research looks at the decision of consumers at new business when they know they may or may not renew the product in the future. Consumers tend to be overconfident in their ability to overcome inertia and self-control problems, and consistently overestimate their own likelihood of switching (Grubbs, 2015a). However, the FCA's recently published rules on price-walking should mean that motor and home insurance customers are no longer disproportionately disadvantaged for lack of switching. Nevertheless, given that we know many consumers do not switch insurance policies every year, it is paramount that they are able to understand long term prices of insurance policies. Our research examines whether long-term prices could be obscured by non-cash promotions even in the absence of price walking, thereby leading consumers to make errors.

We find that cash discounts and cash equivalent promotions (such as retail vouchers, loyalty points and cashbacks), significantly undermine participants' price comprehension and ability to select the best insurance deal. Participants in the experiment were particularly attracted to promotions that included a pound sign or a percent sign, and found discounts incorporated into the underlying policy prices challenging to evaluate.

Policy context

Retail general insurance products represent an important market in the United Kingdom, generating £24 billion in revenues in 2017 with more than 45 million new home and motor insurance policies underwritten in 2018 (FCA, 2019). The purpose of these products is to protect consumers from the financial consequences of adverse events. However, concerns have been raised that the pricing practices of suppliers might be harming consumers and preventing the market from working efficiently. In 2018, the Competition and Markets Authority (CMA) responded to a super-complaint about price walking – the practice of charging longstanding customers more than new customers – and recommended that these pricing practices should be further investigated and potentially restricted (CMA, 2018).

In 2019, the Financial Conduct Authority (FCA) published the interim results of its investigation into the general insurance pricing techniques (FCA, 2019). The report confirmed that loyalty penalties or price walking were widespread practices in the sector, harming as many as 6 million UK consumers. The report found that existing customers on average faced higher premiums than new customers with the latter being offered discounted rates and facing price increases at renewal. Firms were found to use opaque techniques to identify and offer higher renewal quotes to consumers who were least likely to search for a better deal. As a result of these practices, many consumers who did not shop around for better offers, switch policies or negotiate their premiums ended up paying more than they needed to.

As a result, in 2020 the FCA proposed – among other remedies – a ban on price walking, which would require firms to offer renewing customers a price which is no higher than they would pay as a new customer (FCA, 2020). At the same time, the FCA recognised that firms' use of non-cash promotions could frustrate the proposed pricing remedy. Offering promotions only to new customers could lead to a difference in the effective price for new and renewal customers and so create a risk that customers are price-walked. New business promotional offers could also prevent consumers from accurately assessing the expected long-term cost of the product.

Partly informed by the results of this research, the FCA amended the relevant general insurance rules to make clear that both cash and cash-equivalent incentives will need to be reflected in the renewal and equivalent new business prices. Non-cash promotions (e.g. free toy, cinema tickets etc.) have a small and arguably economically negligible effect on participants' ability to select the best insurance deal and assess policy prices correctly. Given these findings, non-cash promotions will not be subject to the same rules.

3   Relevant literature

Promotional offers have been a central subject of interest in the marketing and decision-making literature. However, we are not aware of previous work directly comparing the effects of cash, cash-equivalent and non-cash incentives. Similarly, research on promotional offers in the insurance sector is scarce. Our experiment adds to the literature as it aims to both distinguish different types of promotional offers and to understand how they impact consumer decisions in general insurance markets.

Observational and experimental data confirms that price promotions and discounts increase product demand (Gupta, 1988; Grover & Srinivasan, 1992) and accelerate purchases (Ailawadi & Neslin, 1998). The present research extends these findings in two ways. Firstly, we are not concerned with changes in demand for a single product, but how the presence of promotions in the market impacts consumers' ability to choose the best deal. Secondly, the evidence in this area tends to focus on fast moving consumer goods that are purchased frequently and that consumers are familiar with. In comparison, consumers buy insurance less regularly, have less experience with the product category and perhaps most importantly are less likely to switch insurance annually (FCA, 2019). Individuals tend to be overconfident in their own motivation and ability to overcome self-control problems and switch insurance products in the future (Grubb, 2015a). As a result, consumers effectively sign up to a subscription with automatic renewal but focus only on the immediate cost, failing to account for the long-term price. This long-term price of the subscription is shrouded because of pricing techniques like price walking.

Empirical evidence shows that shrouded price attributes significantly impact consumer choices. For example, eBay auctions with high, but hidden shipping charges result in higher revenues and attract more bidders, compared to low but posted charges (Hossain & Morgan, 2006). Similarly, when prices posted in stores include sales taxes, demand for products decreases more than previously observed price elasticities would predict (Chetty, Looney, & Kroft, 2009). This shrouding likely gives rise to two mechanisms impacting consumer decisions: price complexity and misdirected attention. Firstly, hidden costs and price promotions make it more challenging for consumers to calculate true prices leading to confusion and increased likelihood of errors. Grubb (2015b) highlights that, consumers find prices composed of multiple individual prices complex and evaluate them in a "noisy" fashion. Consumers who need to work out the total price from the posted price, add-ons, and future costs in case they fail to switch are likely to struggle. Secondly, our sensory and cognitive resources are limited, causing less salient information, such as hidden price attributes, to be discounted (DellaVigna, 2009). Instead, our attention is drawn to things that are cognitively and emotionally appealing, like promotions. Aydinli, Bertini, and Lambrecht (2014) showed that presence of price promotions reduced the need and motivation for mental effort leading to choices becoming less deliberate but instead driven by affect, in other words emotions and feelings. Taken together, these mechanisms can explain consumer errors in response to price attributes that are shrouded by price walking or cash promotions.

While the impact of cash discounts and price shrouding is well understood, the evidence on non-cash and cash-equivalent promotions is less clear. Foubert et al. (2018) found that non-price promotions such as free gifts indeed drew attention but were less effective at driving demand than equivalent price cuts. This could be because free gifts offer hedonic benefits such as entertainment, rather than utilitarian benefits in a form of tangible cash savings in a way that price cuts do (Chandon, Wansink, & Laurent, 2000). The affect heuristic offers an additional explanation – it is a type of mental shortcut in which automatic and quick emotional responses become the lead drivers of decision making (Slovic et al., 2017). This means that if a price promotion is salient and immediately perceived as desirable it will unduly attract attention and in turn affect consumer choices. In the context of the insurance setting, this could suggest that non-cash promotions might misdirect attention from important policy attributes such as price. Even though there is no direct evidence suggesting that non-cash promotions would impact price comprehension, they might do so if consumers attach monetary values to them, leading to increased price confusion. This is especially likely when these promotions are "cash-equivalent".

Cashbacks, probabilistic discounts, and retail vouchers appear to trigger different behavioural responses than other types of non-cash promotions such as free gifts. These cash-equivalent promotions resemble cash discounts while also providing some of the hedonic benefits of non-cash promotions. Cashbacks, for example, not only provide us with consumption utility, but also with a gain-loss utility because we gain money compared to the reference price we expected to pay (Kőszegi & Rabin, 2006). Similarly, the popularity of retail vouchers has been attributed to a psychological process known as double mental discounting. Double mental discounting involves taking the perceived gain from the voucher into account both when receiving the voucher and when redeeming it (Cheng & Cryder, 2018). At the same time, consumers tend to overestimate the likelihood that they will redeem the voucher, as the future effort is often higher than expected (Soman, 1998). Mazar, Shampanier and Ariely (2017) focused on probabilistic discounts instead, where consumers were entered into a lottery or a gamble which determined whether they received the product for free. The authors found that probabilistic discounts increased the likelihood of the product being chosen and the quantity of the product purchased. The authors attributed the effect to consumers diminished sensitivity to prices – alternative explanations highlight a reduction in the pain of paying (Lee et al., 2019). Taken together, these three examples suggest that cash-equivalent promotions such as cashbacks, vouchers and probabilistic discounts might impact consumer decisions less than cash promotions, but more than non-cash promotions such as free gifts.

The literature therefore points to a distinction between three types of promotions: (i) cash promotions such as price cuts; (ii) non-cash promotions like free gifts, and (iii) cash-equivalent promotions in a form of vouchers, cashbacks and probabilistic discounts. Cash promotions obscure prices by increasing their complexity, but if explicit might also attract attention and distract consumers from total costs. Non-cash promotions are likely to work through the latter mechanism by inducing positive emotions and grabbing attention, rather than obscuring prices. Cash-equivalent promotions could both misdirect attention and decrease price comprehension, albeit likely to a lesser extent than cash discounts.

4   Methodology

We designed and carried out an online experiment in February 2021 to assess the impact
of promotional offers on decision making by simulating the experience of purchasing
insurance under four hypothetical competition scenarios:[1]

1.   No promotions used;

2.   Non-cash promotions used (e.g. toys);

3.   Cash-equivalent promotions used (e.g. retail vouchers);

4.   Cash promotions used.

The primary aim of the experiment is to test participants' ability to choose the objectively
best insurance policy from a set of four policies. The best policy was the cheapest
including add-ons while the excess and cover were held constant across all options. The
policies were presented on a mock price comparison website (PCW) under the above four
scenarios. We chose a PCW interface because 68% and 56% of consumers in the motor
and home insurance markets, respectively report using PCWs to compare prices and
features (London Economics, 2019). This makes PCWs a common, familiar and relevant
choice context in the general insurance markets.

Experimental Design

Participants in the experiment were randomly allocated to see either a home insurance
scenario or a motor insurance scenario. Within each scenario participants were randomly
assigned to one of four treatment arms described in the Table 1 below. The choice of
promotions included in each arm was informed by the literature, policy considerations
and a pre-test which examined participants' perceptions and valuations of different
promotions.

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[1] The experiment and analyses were pre-specified in an experimental protocol, unless otherwise stated.

Table 1: Description of Treatment Arms

Treatment group	Description
No Promotions (Treatment 1)	No promotions
Non-Cash Promotions I (Treatment 2)	Non-cash promotions allowed. The following promotions were included: • £10 carbon offsetting • 1% chance of winning a weekend in Rome • Jelly cat toy • 2x2 cinema tickets
Non-Cash Promotions II (Treatment 3)	Cash-equivalent promotions allowed. The following promotions were included: • 10% cashback • £40 M&S voucher • 6,000 Nectar points • 1% chance of getting annual insurance for free
Cash Promotions (Treatment 4)	Cash promotions allowed. The following promotions were included: • £50 off • One month free • 10% off • Free legal cover (home insurance only) • Free breakdown cover (motor insurance only)

The key design challenge we faced was to reduce what normally is a sequence of annual choices into a single choice experiment. Under price-walks, new customers effectively benefit from a cash discount, although the value of this discount is unknown to them ex ante. In the experiment we make promotions explicit at the point of purchase and told participants that they would be keeping the policy for two years. We make it clear that promotions would not apply in the second year of the policy to mimic the environment where only new customers benefit from discounted prices. Although this does not fully capture the reality of the insurance purchase experience where cash discounts are implicit due to price walks and switching is possible, we believe it allows us to capture the mechanisms driving the impact of promotional offers on decision making.

Table 2 below, outlines the key features of the experiment and explains how those features address our research questions.

Table 2: Experimental Design

| Task/questions	Summary	Research question
Exclusion questions	Participants younger than 18 and older than 75 are excluded from the experiment; along with those who have never owned or rented a home and those who have never had a driving license.	
Decision task	Participants are presented with a choice of four insurance policies on a mock price comparison website and asked to select the one which offers the best deal assuming they kept the policy for two years. [2] The task is incentivised – participants are paid an additional £0.10 if they pick the best deal. Within treatments 2-4 the promotions associated with the policies are counterbalanced so that each of the 24 possible combinations of policy and promotion occurred with equal frequency. The Blue policy is always the best choice (we refer to this as the 'dominant' choice) regardless of the associated promotion or the treatment arm. The home and motor treatments differ only in the scenario and the add-on promotion in Treatment 4.	The task directly answers the first research question as it allows us to determine which competition scenario leads to the highest proportion of participants selecting the dominant deal. By looking at within treatment variations in decisions when promotions associated with each policy change, we can explore which specific promotions impact decisions the most.
Reason for choice	Participants select the reasons for their choice from a multiple-choice list.	

[2] For examples see Annex 1

Price comprehension	Participants are asked to calculate the total 2nd year cost of all the policies they see in the decision task. This task is incentivised, participants are paid an additional £0.05 for every correctly calculated policy price.	This task directly answers the second research questions as it allows us to test respondents' ability to correctly calculate the long-term cost of each policy. By looking at the proportion of participants calculating individual policies correctly, we can explore which specific promotions impact price comprehension the most.
Final choice	After calculating the prices, participants are given the opportunity to amend their initial policy choice. If they choose to do so they are presented with the decision task again. If they choose not to, they move to the final stage of the experiment immediately.	Giving participants a second chance at the choice task allows us to establish if their attention was initially drawn to a promotion they regretted choosing after calculating the prices.
Demographic questions	Gender Income Region Experience with general insurance and real-life switching behaviour	

Figure 1 below shows an example of a Treatment 3 interface – for additional examples of other treatments please refer to Annex 1. In Treatment 2 participants saw the same interface but with non-cash promotions instead, while those allocated to the control group did not see the "Special offers" column at all. To find the policy which offered the best deal, participants in groups 1, 2 and 3 had to simply add the annual price, the legal cover and the breakdown cover and multiply the price by two to account for the fact that they would be keeping the policy for two years. In the Cash Promotions treatment, the promotional offers were incorporated into the annual price in addition to being listed in the "Special offers" column. For example, when the "Orange insurance" at £339.99 came with a £40 discount, the annual price displayed was £299.99 and the discount was explicitly mentioned in the "Special offers" column. To find the dominant policy participants had to first work out the second-year annual price excluding special promotions and then add legal cover and breakdown insurance.

Figure 1: Example of Treatment 3 Interface
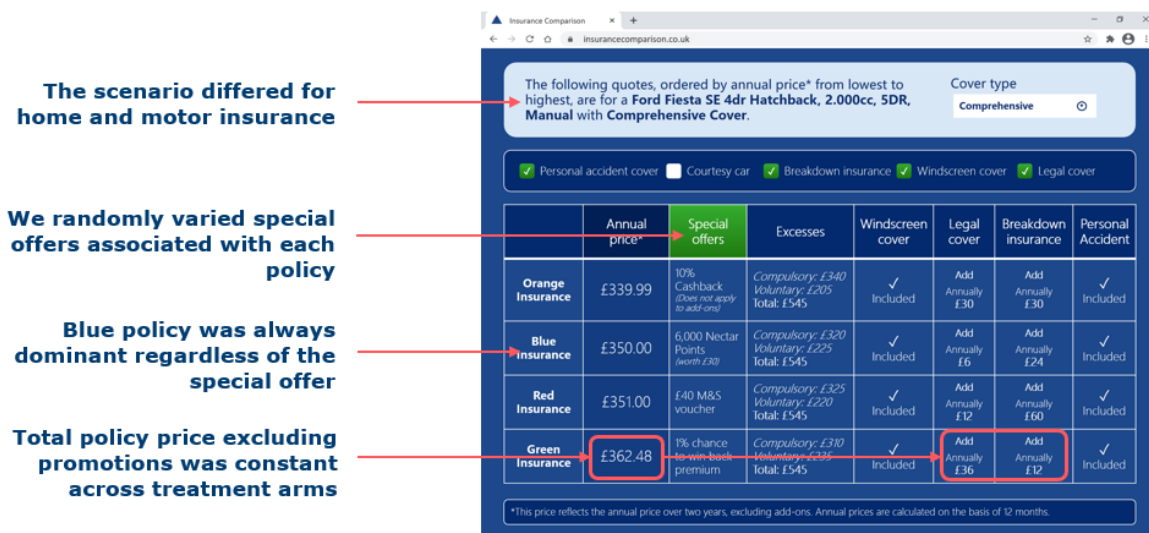
Analytical strategy

We estimate the impact of the treatment manipulations on the outcomes of interest using linear probability models with and without covariates. The covariates used across all regressions include a dummy for whether the participant saw a home or motor insurance scenario, as well as variables capturing age, gender, region, income, and real-life insurance switching behaviour. We use heteroskedasticity-robust standard errors, unless stated otherwise. For robustness, we replicated the OLS specifications using logistic regression because all our outcomes were binary. Since the results did not differ, unless stated otherwise, we focus on the results from the linear probability models for ease of interpretation. Table 3 provides an overview of the outcome variables and models used for analysis; Annex 3 includes a more formal description of the regressions.

Table 3: Outcome Measures

Outcome variable	Description	Empirical Strategy
Primary **Did participant choose the best deal?**	Binary variable • 1 if Blue insurance (dominant) was picked • 0 in all other cases	Linear probability model
Secondary I **Did participant calculate insurance prices correctly?**	Binary variable • 1 if participant calculated prices of all four policies correctly[3] • 0 in all other cases	Linear probability model
Secondary II **Did participant amend initial policy choice?**	Binary variable • 1 if participant opted to amend choice and did so in final choice • 0 in all other cases	Linear probability model Linear probability model estimating the effect of the initial choice, price comprehension, and their interaction *(not pre-specified)*[4]
Exploratory I **How often did participants choose each promotional offer?**	Continuous variable • Choice share of each promotional offer (within treatment groups)	Chi-square tests testing difference from theoretically expected choice shares of 25% For this analysis the data was structured at the level of a policy within each participant
Exploratory II **Did participants calculate prices correctly for individual promotional offers?**	Binary variable • 1 if participant calculated price of the individual policy correctly • 0 in all other cases	Linear probability model *(not pre-specified)* For this analysis the data was structured at the level of a policy within each participant

[3] Prices within +/- £1 of the true cost were coded as correct as we did not want the results to be impacted by participants ignoring decimals. The ranking of insurance policies would not be affected by ignoring decimals.

[4] We calculate the Variance Inflation Factors (VIFs) of the regressors to rule out concerns about multicollinearity due to the correlation of the policy choice and price calculation dummies. The VIFs for the correct calculations dummy and the interaction are slightly above 5. The literature suggests cut-off points of 5 (Sheather, 2009) or 10 (Kutner, 2004) to determine whether the multicollinearity is serious and poses a problem to the stability of the estimates. We take the VIF of our regressors to mean that multicollinearity is present, but that the levels are acceptable for exploratory analysis.

5   Results

Sample description and attrition

Our total sample consists of 5,013 unique applicants. This is after excluding incomplete responses, duplicate IDs and IP addresses, and 24 responses which were subject to a programming error. The sample was balanced on age and gender. However, we did detect instances of imbalance on income, region, whether participants had insurance and frequency of switching. The imbalance did not appear to be systematic, but for robustness we include specifications which control for these covariates in all analyses. Table 6 in Annex 2 reports the balance checks and observed imbalances.

Overall, 86.6% of participants who were exposed to the treatment completed the experiment. However, attrition is higher in Treatment 4, relative to the control group – detailed results are reported in Tables 4 and 5 in Annex 2. The magnitude of the difference is small, just 2.6 percentage points. As we did not detect any systematic imbalance between treatment arms on key covariates after attrition, we do not make any attempts to account for attrition in subsequent analysis.

All subsequent analyses are pooled for the home and motor insurance scenarios. Additional analyses revealed no significant main or interaction effects between these scenarios and treatment assignment. This means that the effect of promotions does not depend on whether participants chose among home or motor insurance policies. For ease of interpretation, the models reported here do not include that interaction term, but instead a dummy capturing whether the home or motor insurance scenario was displayed, which is insignificant across all regressions.

Policy Choice

The experiment demonstrates that when participants are asked to choose between insurance policies that include promotional offers – as opposed to a scenario without promotional offers – they are statistically significantly less likely to choose the best insurance deal. The effect is particularly pronounced for cash discounts and promotions closely resembling cash.

As expected, cash promotions had the largest impact, reducing the likelihood of the best deal being chosen by 20.6pp (27.7%), relative to the control group. Cash-equivalent promotions followed with a significant and substantial reduction of 11.6pp (15.6%) compared to the control group. Somewhat surprisingly, even respondents presented with non-cash promotions are less likely to correctly identify the dominant policy. We note the effect is small although statistically significant at 5.2pp (7%), relative to the control group. Figure 2 present the results including pairwise comparisons showing statistically significant differences between consecutive treatment arms – detailed results are presented in Table 7 in Annex 4.

Figure 2: The Share of Respondents who Selected the Best Deal by Treatment Group

N = 5,013

***p<0.001; **p<0.01; *p<0.05; +p<0.1
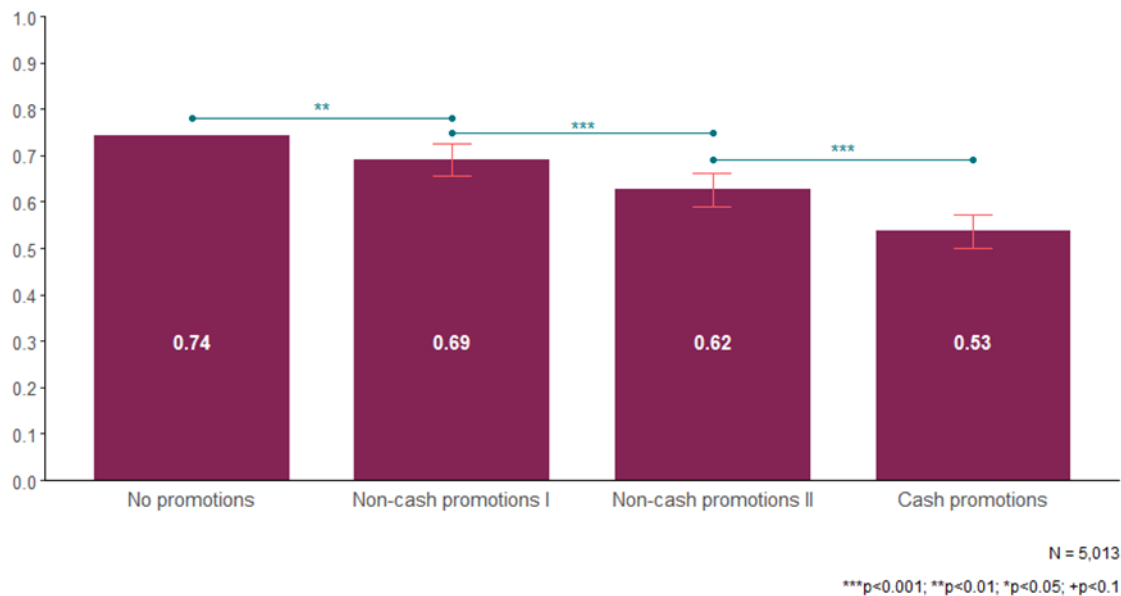
The above results did not change substantially or statistically upon inclusion of covariates. However, we found statistically significant effects of gender, age and insurance switching behaviour on the outcome. The latter two effects suggest that experience, as we would expect, might have played a role in participants' ability to spot the best insurance deal. Those who reported rarely switching insurance and those who had had insurance for less than a year were 4.7pp and 13.7pp less likely to choose the dominant policy than those who told us they switched every year. The impact of age was small, a ten-year increase in age was associated with an economically negligible 1pp increase in the likelihood of choosing the best insurance deal.

Price Comprehension

We find that all types of promotional offers reduce participants' ability to calculate the prices of the insurance policies correctly, as compared to the control group which was not exposed to any promotions. Analogous to the primary analysis, this effect is strongest for cash promotions and weakest for non-cash promotions. The results suggest that increased price complexity caused by the presence of promotions could indeed undermine consumers insurance choices.

Only 2% of respondents in the cash promotion treatment were able to correctly calculate prices of all policies, compared to 45% of respondents in the no promotions control group – a drop of 93.87%. While this difference is striking, the decline in price comprehension associated with cash-equivalent promotions is also large, namely 16.4pp (35.9%). Interestingly, as above, even non-cash promotions confused some participants leading to a small but significant reduction of 5pp (10.9%) in price comprehension, relative to the control group. Figure 3 presents the results including pairwise comparisons showing significant differences between consecutive treatment arms. Detailed results are presented in Table 8 in Annex 4.

Figure 3: The Share of Respondents who Calculated All Policy Prices Correctly by Treatment Group
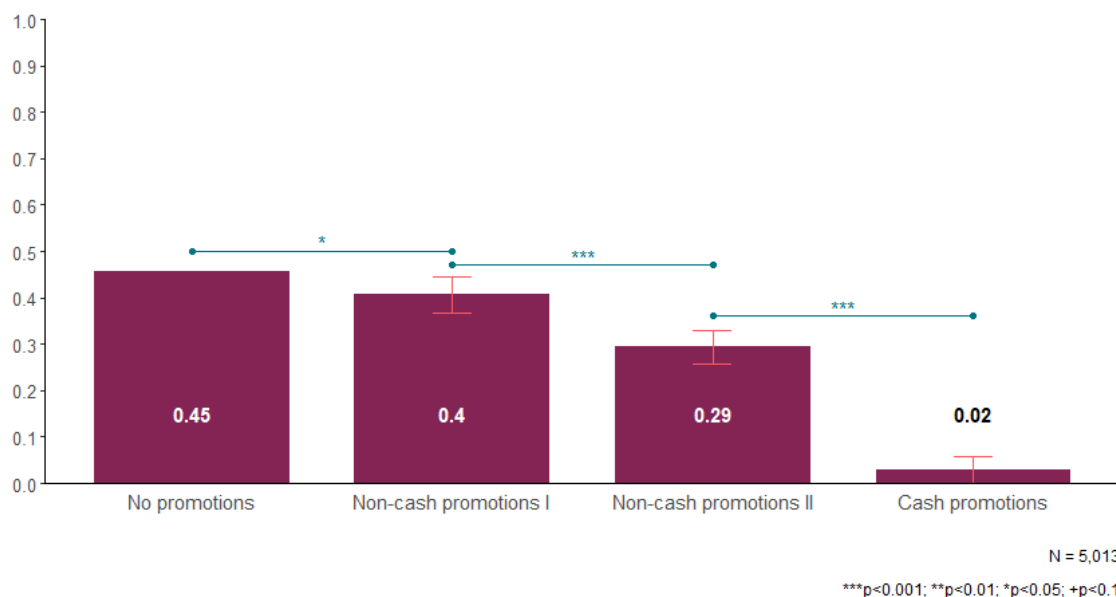
As with the ability to select the best deal, price comprehension appears to be impacted by experience. Those who report having any car insurance for less than a year are 13.4pp less likely to get the prices right than those who told us they switched insurance annually. Interestingly, those who indicate switching insurance every 2-5 years are most likely to calculate the prices correctly, beating annual switchers by 4.2pp. Annual switchers and those who report switching rarely or never do not differ significantly. A ten-year increase in a participant's age is associated with a 4pp increase in price comprehension.

It is apparent that participants are able to pick the best deal, even if they cannot calculate the prices of all policies correctly. This is especially evident in the cash promotions treatment, where only 2% of participants calculated the prices correctly, but 53% were able to pick the best deal. One possible explanation is that participants might have not needed to calculate the prices of all four options correctly – it might have been sufficient to use rule-of-thumb calculations to arrive at a rough ranking or to only focus on the policies that appear cheapest. In this sense, our measure of price comprehension is very strict, even though we incentivised correct calculations.

A second caveat pertaining to the large effect of the cash promotions is that it is likely confounded with the presentation of the promotional offers. It was the only treatment where the promotions were incorporated into the displayed prices, so the effect is likely driven by both the cash promotions themselves and their presentation. Future research should attempt to disentangle these effects, while policy remedies should also consider how firms likely present promotional offers for insurance policies.

Misdirected Attention

To establish if misdirected attention could play a role in incorrect policy selection, we give participants a chance to amend their initial choice after the price calculation task. We hypothesise that if participants in the promotion treatments chose a dominated policy – a policy that is not the best deal – but are able to calculate prices correctly and subsequently switch to the best deal, this would point to promotions unduly attracting attention away from the total price.

We find that only around 12% of participants take up the offer to amend initial choices. Participants in the cash promotion treatment differ significantly from all other treatment groups, being 6.1pp (62.9%) more likely to amend their choice of policy than participants in the control group. Table 9 in Annex 4 and Figure 4 present these results.[5]

Figure 4: The Share of Respondents who Amended Initial Policy Choice by Treatment Group
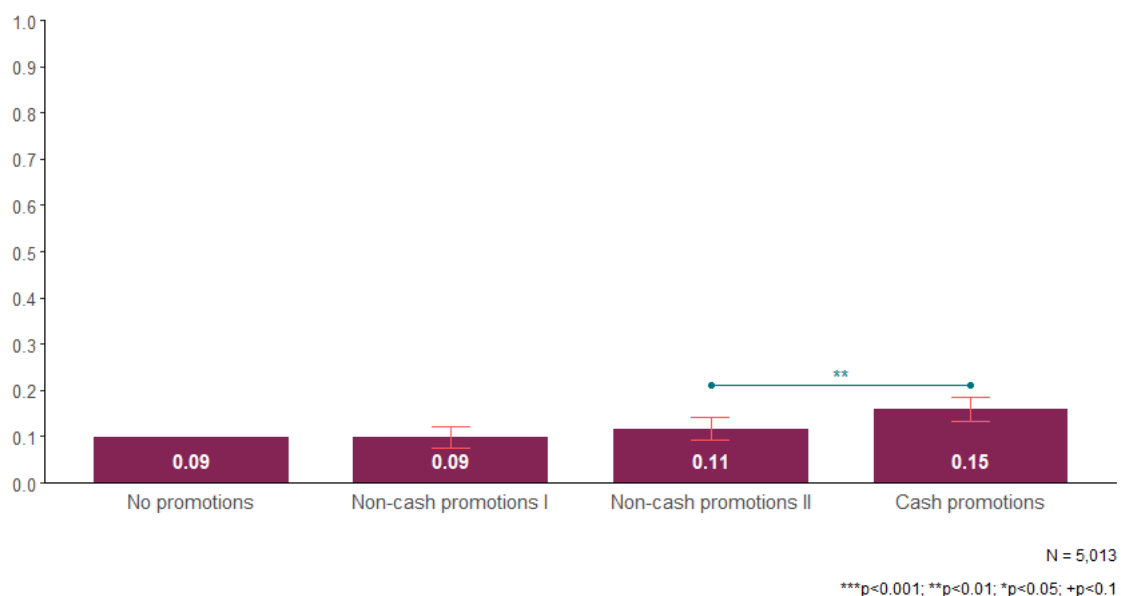
To better understand how initial choice and price comprehension impact participants' decision to amend their policy selection, we conduct an exploratory analysis regressing the outcome on those variables and their interaction. This analysis was not pre-specified and should be treated as purely exploratory. The results are reported in Table 10 in Annex 4.
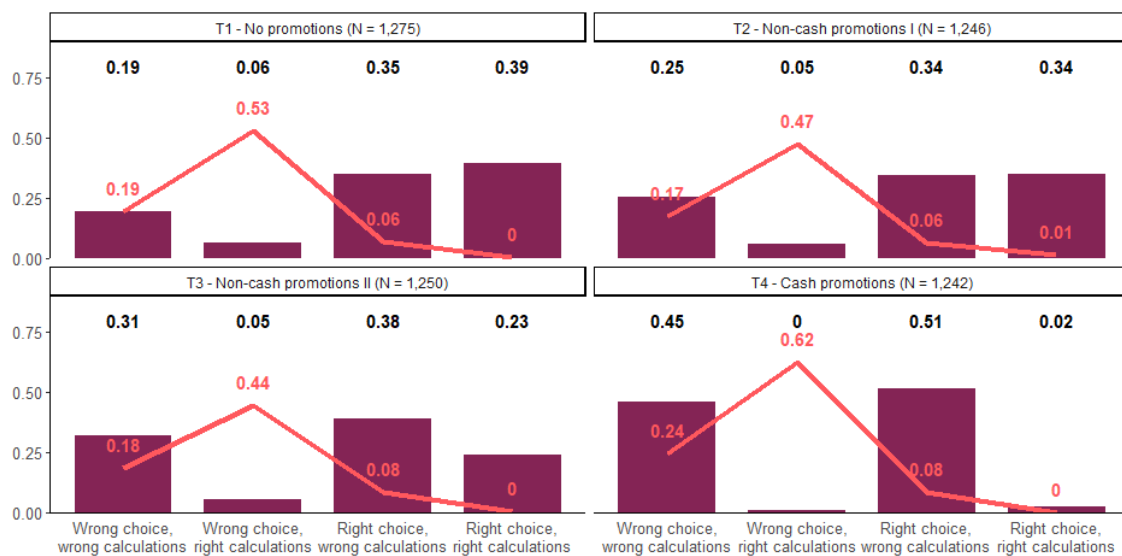
Unsurprisingly, we find that those who initially picked the wrong policy were more likely to amend their choices than those who got it right first time. In addition, calculating prices correctly did increase the likelihood of amending the policy choice, but only when a suboptimal deal was chosen initially. Figure 5 plots the proportion of participants by "segment" (bars) – whether they chose the best deal or not and whether they calculated the policy prices correctly – alongside the proportion of participants within each segment that amended their initial choice (line). It illustrates the findings from the exploratory

[5] Due to the low proportion of participants who amended their initial choice, the pre-specified mediation analysis accounting for the potentially mediating effect of price comprehension on the decision to amend the initial choice was not meaningful and is not reported here.

analysis and clearly shows that participants who chose the wrong policy, but calculated prices correctly were significantly and substantially more likely to change their initial choice than any other participant "segment".

Despite this result, we find no clear evidence for the hypothesised misdirected attention mechanism as the effects do not differ significantly between treatment groups. This suggests that we did pick up on a lack of attention to prices, but this inattention does not appear to be caused by the presence of promotions. Furthermore, very few participants selected a dominated policy but calculated prices correctly – the height of the bars in Figure 5 shows the total proportion of participants in each segment. Promotional offers did not misdirected attention any more than the interface in the control group did, and price complexity appears to be the main mechanism driving consumer choices. Future research should continue to investigate whether different promotional offers attract consumers' attention to a different extent – for example through product feature recall tasks.

Figure 5: Proportion of Participants in the Four Choice/Calculation Segments (bars) and Proportion of Participants who Amended their Initial Choice by Segment (line)

N = 5,013
The proportion of participants within each treatment group that falls in each segment is represented by the bars.
The proportion of participants within each segment that amended their initial choice is represented by the lines.

Individual promotions and policy choice

As part of the exploratory analysis, we want to understand whether the results of the experiment could be partly explained by specific promotional offers having an especially large impact on policy choice. Each of the four insurance policies within each treatment arm is associated with each promotional offer 25% of the time, which means that each promotional offer should be chosen 25% of the time. By design, promotions should not impact policy choices, since the Blue policy is always dominant. We conduct a series of chi-square tests to assess the popularity of each promotion.

We find that participants favour certain promotional offers over others, with some being chosen significantly more or less than the expected 25%. In the cash-equivalent treatment, 10% cashback and £40 M&S voucher are chosen 30% and 28% of the time respectively, while the 1% chance to win back the premium – the probabilistic discount – was only chosen 16% of the time. In the cash treatment, the percentage and nominal discounts proved popular, with 34% and 31% choice shares, respectively, while free add-ons are chosen only 12% of the time (Figure 6, Table 11 in Annex 4).

Figure 6: The Choice Share of each Promotional Offer

N = 5,013
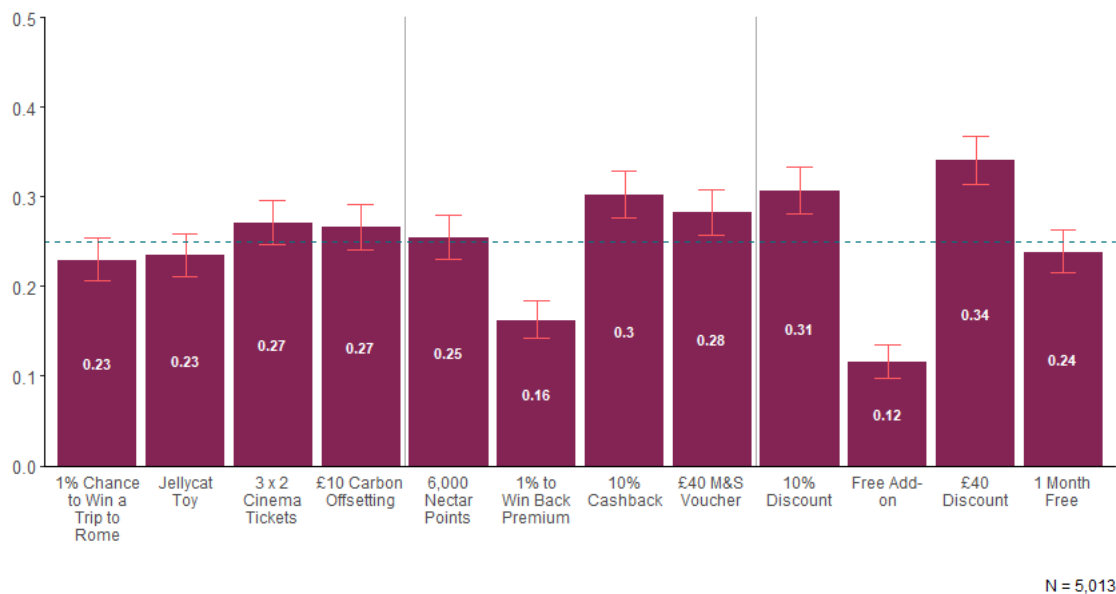
It appears that participants are particularly attracted to promotions that included a pound sign or a percent sign – unless the latter was associated with a probabilistic discount. It is not surprising that these symbols would be attention grabbing given their frequent association with promotional deals.

We also propose two potential explanations for the probabilistic discount and the free add-ons being relatively unpopular. Prospect theory suggests that people tend to be risk averse when it comes to uncertain gains. It is possible respondents are put off by the small likelihood of winning the premium back and instead opt for the certain gains of the remaining three promotions. In the case of free add-ons, the presentation of the special offer price could have played a role. Since policies are always ordered by annual price and the free add-ons cannot be incorporated into this price, the policy associated with the free add-on offer is always presented in last place. This does not mean that this policy is in fact the most expensive overall – however it could have led some participants to believe that.[6]

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[6] We cannot infer how promotions from different treatments would compare if they were presented simultaneously. The experimental design only allowed for direct comparisons within treatment arms. Different combinations of promotional offers presented simultaneously could lead to different results.

Individual promotions and price comprehension

In addition to the impact of individual promotional offers on choice shares, we further investigate whether some promotional offers added to the price complexity more than others. To do so, we regress the binary indicator of correct price calculation on a series of dummy variables indicating promotional offers tested and insurance policy controls.

The results are presented in Table 12 in Annex 4 and show that all individual promotions, except for the chance to win a trip to Rome, significantly reduced the likelihood of calculating the price associated with the policy correctly (Figure 7), compared to the baseline with no promotions used.

Figure 7: The Probability of Correctly Calculated Policy Price by Promotional Offer Associated with that Policy

N = 5,013
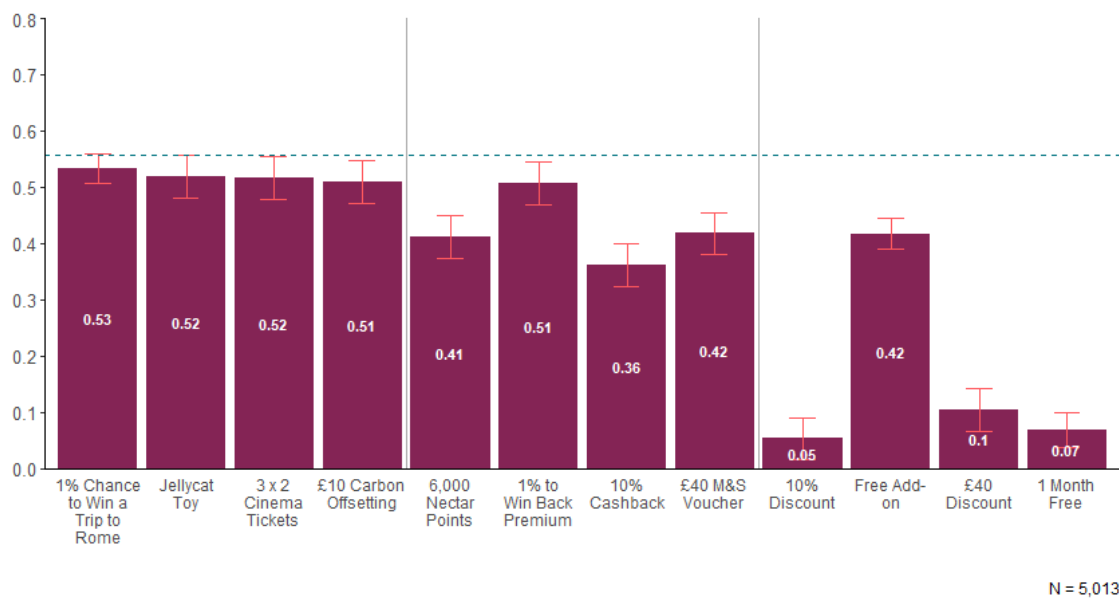
There are clear price comprehension differences between treatments as indicated by the evidence on price comprehension presented above. However, we uncover interesting variation within treatment conditions. In particular, the impact of the 1% chance to win back the premium promotion is closer to the average impact of non-cash promotions rather than cash-equivalent ones. This could have been caused by participants not being able to assign a monetary value to the promotion and therefore correctly not accounting for it in their price calculations while attempting to account for the other offers in this treatment. Similarly, free add-ons are closer in impact to cash-equivalent promotions rather than its current category – cash promotions. We hypothesise that this result is partly driven by presentation – free add-ons have no impact on the promotional price displayed, so they do not shroud the total price as much, which made the calculations much simpler.

Finally, we found that participants were 1.5pp (2.67%) less likely to calculate the price of the Green policy correct compared to the Blue policy. At first, this seems surprising since all policies were associated with all promotions equally often, so it would point to an attribute of the Green policy itself increasing price complexity. We think that this effect is

mainly is driven by the order the policies appeared in. The Green policy was the most expensive one and therefore appeared at the bottom of the price comparison table more often than any other policy. It therefore seems that participants lost interest or attention when calculating the price of the Green policy – or that a rule-of-thumb calculation was sufficient to understand the Green policy was more expensive – leading to the reduced likelihood of calculating prices correctly.

6   Discussion

Evidence from the experiment demonstrates that the presence of promotions can indeed undermine consumers' decision making and price comprehension, especially if those promotions closely resemble cash discounts.

Perhaps unsurprisingly, cash promotions are the most influential, which we believe is partially due to their presentation. Cash promotions can be incorporated into the price in a way that non-cash promotions cannot. This can and did significantly increase the complexity of the calculations required to estimate the total price of the policies excluding discounts. Cash-equivalent promotions (e.g. retail vouchers), although less influential than cash discounts, have a significant and substantial impact on policy choice and understanding of price. Despite the promotions being presented separately from annual prices, we suspect that participants made errors by attempting to account for them in their calculations of total prices. We do not find clear evidence that non-cash promotions, like toys and cinema tickets, misdirect consumers' attention. As a result, they have a much smaller and arguably economically negligible effect in comparison to the other promotions tested.

The results of this experiment informed FCA's General Insurance Pricing Practices Final Rules (PS21/5). The updated rules make it clear that both cash and cash-equivalent promotions will need to be reflected in the renewal and equivalent new business prices. For the purpose of the policy, non-cash promotions are defined as those that cannot be readily expressed as having a definite monetary value – these can be offered to new business only. The rules emphasise that presentation of promotions must be clear and not confuse or disguise the price of the insurance product.

Annex 1: Experimental Interfaces

No promotions

Non-cash promotions I

Non-cash promotions II

The following quotes, ordered by annual price* from lowest to highest, are for a **2-bedroom flat** you **rented** in **your area**.

Buildings cover £750,000 Contents cover £50,000

☑ Home emergency cover ☑ Accidental damage ☑ New for old ☐ Replacement keys ☑ Legal cover

	Annual price*	Special offers	Excesses	New for old	Home emergency	Legal cover	Accidental damage
Orange Insurance	£339.99	10% Cashback (Does not apply to add-ons)	Compulsory: £115 Voluntary: £135 Total: £250	✓ Included	Add Annually £30	Add Annually £30	✓ Included
Blue Insurance	£350.00	£40 M&S voucher	Compulsory: £100 Voluntary: £150 Total: £250	✓ Included	Add Annually £6	Add Annually £24	✓ Included
Red Insurance	£351.00	6,000 Nectar Points (worth £30)	Compulsory: £130 Voluntary: £120 Total: £250	✓ Included	Add Annually £12	Add Annually £60	✓ Included
Green Insurance	£362.48	1% chance to win back premium	Compulsory: £125 Voluntary: £125 Total: £250	✓ Included	Add Annually £36	Add Annually £12	✓ Included

*This price reflects the annual price over two years, excluding add-ons. Annual prices are calculated on the basis of 12 months.

Cash promotions

The following quotes, ordered by special offer annual price* from lowest to highest, are for a **Ford Fiesta SE 4dr Hatchback, 2.000cc, 5DR, Manual** with **Comprehensive Cover**.

Cover type: Comprehensive

☑ Personal accident cover ☐ Courtesy car ☑ Breakdown insurance ☑ Windscreen cover ☑ Legal cover

	Special offer annual price*	Special offers	Excesses	Windscreen cover	Legal cover	Breakdown insurance	Personal Accident
Red Insurance	£311.00	£40 discount included	Compulsory: £325 Voluntary: £220 Total: £545	✓ Included	Add Annually £12	Add Annually £60	✓ Included
Orange Insurance	£311.66	1 month free included (Does not apply to add-ons)	Compulsory: £340 Voluntary: £205 Total: £545	✓ Included	Add Annually £30	Add Annually £30	✓ Included
Green Insurance	£326.23	10% discount included (Does not apply to add-ons)	Compulsory: £310 Voluntary: £235 Total: £545	✓ Included	Add Annually £36	Add Annually £12	✓ Included
Blue Insurance	£350.00	Free breakdown insurance included	Compulsory: £320 Voluntary: £225 Total: £545	✓ Included	Add Annually £6	Add Annually £24	✓ Included

* This price reflects the annual promotional price for the first year of the policy, including the special offer and excluding add-ons. Special offers will not apply in year 2, so prices will differ. Annual prices are calculated on the basis of 12 months.

Annex 2: Balance checks

Table 4: Treatment distribution

	Home	*Motor*	*Combined*
Treatment 1	626	649	1275
Treatment 2	584	662	1246
Treatment 3	637	613	1250
Treatment 4	639	603	1240
Total	**2486**	**2527**	**5013**

Notes: The observed frequencies don't differ from each other significantly (chi-sq = 6.47, p > 0.05).

Table 5: Attrition – likelihood of completing the experiment

	Attrition
	Completion dummy
	logistic
Treatment - Ref: T1	
T2 - Non-cash I	-0.012 (0.012)
T3 - Non-cash II	-0.021 (0.012)
T4 - Cash	-0.026* (0.013)
Control group mean:	0.881
Observations	5,841
Log Likelihood	-2,295.253
Akaike Inf. Crit.	4,598.506

Notes: *p<0.05, **p<0.01, ***p<0.001

Log odds were transformed into average marginal effects (AMEs) for ease of interpretation.

Table 6: Balance checks – Demographic characteristics and insurance behaviour across treatment groups and the home/motor scenarios

	T1	T2	T3	T4	Home insurance	Motor insurance
Age (mean)	44.8	44.6	44.3	44.9	44.7	44.6
Female	50.35	49.76	51.28	51.77	50.48	51.09
Region						
East Midlands	7.69	7.14	8	7.41	7.84	7.28
East of England	9.57	6.9	9.36	8.7	8.65	8.63
Greater London	13.73	**15.41**	11.84	14.49	14.44	13.29
North East England	5.18	3.69	3.84	4.91	4.51	4.31
North West England	11.14	11.56	13.2	9.66	11.91	10.88
Northern Ireland	1.41	**3.13**	1.52	1.85	2.09	1.86
Scotland	7.22	8.83	7.76	7.41	7	8.59
South East England	14.2	14.13	13.6	14.9	13.8	14.6
South West England	7.76	8.67	8.96	8.78	7.96	9.1
Wales	4.55	4.33	4.88	4.75	4.99	4.27
West Midlands	9.96	8.91	9.76	8.86	9.53	9.22
Yorkshire and the Humber	7.61	7.3	7.28	8.29	7.28	7.95
Income						
Less than £12,000	7.29	7.54	7.6	5.48	6.64	7.32
£12,000 - £24,000	17.65	18.78	18.8	18.2	17.34	19.35
£24,000 - £36,000	22.35	21.99	22.32	**23.59**	23.37	21.76
£36,000 - £48,000	18.59	17.66	16.32	17.39	18.14	16.86
£48,000 - £60,000	12.31	12.27	12.48	*14.01*	12.55	12.98
£60,000 - £72,000	7.53	6.82	7.6	7.73	7.28	7.56
Greater than £72,000	9.65	9.39	11.04	9.34	10.02	9.7

Participants were asked about either home or motor insurance depending on their experimental allocation.

	T1	T2	T3	T4	Home insurance	Motor insurance
Insurance						
Yes	**80.39**	84.35	81.52	84.54	***79.61***	85.71
No, but in the past	**10.27**	7.38	9.28	**6.76**	8.69	8.19
No, never	9.33	8.27	9.2	8.7	***11.71***	6.09
Switching behaviour						
Every year	29.49	29.61	31.68	32.29	***26.55***	34.9
Every 2 to 5 years	31.45	32.18	30	32.69	***30.77***	32.37
Rarely or never	14.35	17.34	15.44	15.54	***17.46***	13.89
Insurance less than a year	5.1	5.22	4.4	4.03	***4.83***	4.55

Notes: The table reports the mean age of the participants and the proportion of participants in each treatment group with a certain demographic feature. Logistic regressions were used to determine whether any differences were significant – we calculated whether the likelihood of treatment assignment correlated with any demographic or insurance behaviour covariates. Values in **bold** signal statistically significant differences to at least one other treatment, values in ***bold and italics*** signal statistically significant differences to all other treatments.

Annex 3: Analytical Strategy

Across all analyses, we use linear probability models with and without covariates to estimate the effects of interest. We include a vector of covariates X_i, containing a dummy for whether participant i saw a home or motor insurance scenario, as well as variables capturing age, gender, region, income and real-life insurance switching behaviour in all regressions. Heteroskedasticity-robust standard errors are used and the OLS specifications are replicated using logistic regression because all our outcomes are binary.

Primary analysis

In the primary analysis we estimate the impact of treatment assignment T_i of participant i on the likelihood of choosing the best deal – the Blue insurance. This allows us to measure the extent to which different promotions impact consumer decisions and their likelihood of being able to choose the best insurance policy. The outcome of interest Y_i is binary and takes the value 1 if participant i chose the Blue insurance, and 0 if she chose any other policy.

$$Y_i = \alpha_0 + T_i\alpha_1 + X_i\alpha_2 + \epsilon_i$$

Secondary analysis I

In the secondary analysis we estimate the impact of treatment assignment T_i of participant i on price comprehension to assess if increased price complexity associated with the presence of promotions could explain errors in policy selection. The outcome we focus on is the likelihood of correctly calculating the prices of **all** four displayed policies. Consequently, the outcome of interest C_i in this analysis is binary and takes the value 1 if the participant i calculated the prices of all four displayed policies correctly, and 0 otherwise.

$$C_i = \alpha_0 + T_i\alpha_1 + X_i\alpha_2 + \epsilon_i$$

Secondary analysis II

We then estimate the impact of treatment assignment T_i of participant i on the likelihood of amending one's initial policy choice. For this purpose, we use a binary outcome A_i which takes the value 1 if participant i stated they wanted to amend their choice and actually did so in the second decision task, and 0 in all other cases.

$$A_i = \alpha_0 + T_i\alpha_1 + X_i\alpha_2 + \epsilon_i$$

To complement this analysis, we add an exploratory regression that was not pre-specified in the experimental protocol. We regress the binary variable A_i capturing whether participant i amended her initial choice on the outcome variables from the primary analysis Y_i, the secondary analysis C_i, as well as their interaction and the usual covariates X_i. This allows us to estimate how the decision to amend one's initial policy choice depends on whether the best deal was chosen initially, whether the prices of all policies were calculated correctly, and their interaction.

$$A_i = \alpha_0 + \alpha_1 Y_i + \alpha_2 C_i + \alpha_3 Y_i C_i + X_i \alpha_4 + \epsilon_i$$

Exploratory analyses I and II

Finally, we included two more exploratory analyses that were not pre-specified in the experimental protocol, investigating the impact of individual promotions. First, we used chi-squared tests to benchmark the actual choice shares of promotional offers against a theoretically predicted 25% choice share.

Secondly, we use a random effects model and regress an indicator of whether participant i calculated the price of policy d correctly on the promotional offer associated with it O_{id} and the underlying policy I_{id} as well as the usual covariates X_i. The outcome variable C_{id} is binary and takes the value 1 if the price for the policy d was calculated correctly by participant i, and 0 otherwise. In contrast to the other regressions, for this model the data is structured at the level of a policy within each participant which motivated the inclusion of random effects ϕ_d.

$$C_{id} = (\alpha_0 + \phi_d) + O_{id}\alpha_1 + I_{id}\alpha_2 + X_i\alpha_3 + \epsilon_{id}$$

Annex 4: Regression Tables

Table 7: Primary analysis – Likelihood of choosing the best deal

	Insurance choice			
	Likelihood of choosing best deal			
	OLS	*logistic*	*OLS*	*logistic*
	(1)	(2)	(3)	(4)
Treatment – Ref: T1				
T2 - Non-cash I	-0.052** (0.018)	-0.052** (0.018)	-0.049** (0.018)	-0.049** (0.018)
T3 - Non-cash II	-0.116*** (0.018)	-0.116*** (0.018)	-0.117*** (0.018)	-0.117*** (0.018)
T4 - Cash	-0.206*** (0.019)	-0.206*** (0.019)	-0.208*** (0.019)	-0.208*** (0.019)
Home Insurance			-0.016 (0.013)	-0.016 (0.013)
Age			0.001** (0.0005)	0.001** (0.0005)
Gender – Ref: Female				
Male			-0.033* (0.014)	-0.033* (0.014)
Non-binary			0.002 (0.142)	0.003 (0.122)
Prefer not to say			-0.387** (0.150)	-0.418* (0.201)
Insurance switching – Ref: Switches every year				
Switches every 2-5 years			0.003 (0.017)	0.003 (0.017)
Switches rarely or never			-0.047* (0.021)	-0.047* (0.021)
Insurance less than a year			-0.137*** (0.035)	-0.136*** (0.035)
Currently no insurance			-0.024 (0.021)	-0.024 (0.021)
Constant	0.743*** (0.012)		0.705*** (0.044)	
Region	No	No	Yes	Yes
Income	No	No	Yes	Yes
Observations	5,013	5,013	5,013	5,013
R^2	0.026		0.041	
Adjusted R^2	0.025		0.035	
Log Likelihood		-3,180.883		-3,143.359
Akaike Inf. Crit.		6,369.766		6,348.718
Residual Std. Error	0.471 (df = 5009)		0.469 (df = 4982)	
F Statistic	44.496*** (df = 3; 5009)		7.038*** (df = 30; 4982)	

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

Log odds were transformed into average marginal effects (AMEs) for ease of interpretation. Constants are not displayed for logistic regressions as there are no AMEs associated with them.
OLS standard errors are heteroskedasticity robust.

Table 8: Secondary analysis (i) – Likelihood of correctly calculating all prices

	Price comprehension			
	Likelihood of calculating prices correctly			
	OLS	*logistic*	*OLS*	*logistic*
	(1)	(2)	(3)	(4)
Treatment – Ref: T1				
T2 - Non-cash I	-0.050* (0.020)	-0.050* (0.020)	-0.050** (0.019)	-0.050** (0.019)
T3 - Non-cash II	-0.164*** (0.019)	-0.164*** (0.019)	-0.165*** (0.019)	-0.165*** (0.018)
T4 - Cash	-0.429*** (0.015)	-0.429*** (0.015)	-0.434*** (0.015)	-0.431*** (0.014)
Home Insurance			-0.013 (0.012)	-0.012 (0.012)
Age			0.004*** (0.0004)	0.004*** (0.0004)
Gender – Ref: Female				
Male			-0.031* (0.012)	-0.029* (0.012)
Non-binary			-0.238*** (0.049)	-0.313*** (0.008)
Prefer not to say			-0.168* (0.077)	-0.313*** (0.008)
Insurance switching – Ref: Switches every year				
Switches every 2-5 years			0.042** (0.015)	0.041** (0.015)
Switches rarely or never			0.0001 (0.019)	-0.002 (0.018)
Insurance less than a year			-0.134*** (0.026)	-0.143*** (0.027)
Currently no insurance			-0.029 (0.018)	-0.028 (0.019)
Constant	0.457*** (0.014)		0.300*** (0.040)	
Region	No	No	Yes	Yes
Income	No	No	Yes	Yes
Observations	5,013	5,013	5,013	5,013
R^2	0.131		0.172	
Adjusted R^2	0.131		0.167	
Log Likelihood		-2,637.135		-2,511.731
Akaike Inf. Crit.		5,282.270		5,085.463
Residual Std. Error	0.426 (df = 5009)		0.417 (df = 4982)	
F Statistic	252.285*** (df = 3; 5009)		34.501*** (df = 30; 4982)	

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

Log odds were transformed into average marginal effects (AMEs) for ease of interpretation. Constants are not displayed for logistic regressions as there are no AMEs associated with them.
OLS standard errors are heteroskedasticity robust.

Table 9: Secondary analysis II – Likelihood of amending initial policy choice after calculating prices

	Decision to amend			
	Likelihood of changing initial policy choice			
	OLS	*logistic*	*OLS*	*logistic*
	(1)	(2)	(3)	(4)
Treatment – Ref: T1				
T2 - Non-cash I	0.001 (0.012)	0.001 (0.012)	0.003 (0.012)	0.003 (0.012)
T3 - Non-cash II	0.020 (0.012)	0.020 (0.012)	0.020 (0.012)	0.020 (0.012)
T4 - Cash	0.061*** (0.013)	0.061*** (0.013)	0.061*** (0.013)	0.061*** (0.013)
Home Insurance			-0.002 (0.009)	-0.002 (0.009)
Age			-0.0001 (0.0003)	-0.0001 (0.0003)
Gender – Ref: Female				
Male			-0.020* (0.009)	-0.020* (0.009)
Non-binary			-0.060 (0.072)	-0.059 (0.067)
Prefer not to say			-0.137*** (0.019)	-0.127*** (0.007)
Insurance switching – Ref: Switches every year				
Switches every 2-5 years			-0.008 (0.012)	-0.008 (0.011)
Switches rarely or never			-0.010 (0.014)	-0.010 (0.014)
Insurance less than a year			0.014 (0.024)	0.015 (0.025)
Currently no insurance			0.008 (0.015)	0.007 (0.015)
Constant	0.097*** (0.008)		0.150*** (0.032)	
Region	No	No	Yes	Yes
Income	No	No	Yes	Yes
Observations	5,013	5,013	5,013	5,013
R^2	0.006		0.010	
Adjusted R^2	0.005		0.004	
Log Likelihood		-1,798.210		-1,786.574
Akaike Inf. Crit.		3,604.420		3,635.147
Residual Std. Error	0.321 (df = 5009)		0.321 (df = 4982)	
F Statistic	9.769*** (df = 3; 5009)		1.738** (df = 30; 4982)	

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

Log odds were transformed into average marginal effects (AMEs) for ease of interpretation. Constants are not displayed for logistic regressions as there are no AMEs associated with them.
OLS standard errors are heteroskedasticity robust.

Table 10: Exploratory analysis *(not pre-specified)* – Likelihood of amending initial policy choice after calculating prices

	Decision to amend
	Likelihood of changing initial policy choice
Best Deal	-0.132*** (0.012)
Correct calculations	0.282*** (0.035)
Best Deal * Correct Calculations	-0.350*** (0.035)
Constant	0.207*** (0.010)
Observations	5,013
R^2	0.121
Adjusted R^2	0.120
Residual Std. Error	0.302 (df = 5009)
F Statistic	229.671*** (df = 3; 5009)
Variance inflation factor: Best Deal	1.32
Variance inflation factor: Correct calculations	5.22
Variance inflation factor: Interaction	5.93

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

**Table 11: Exploratory analysis I – Comparison of each promotion's
choice share to the expected share of 25%**

Promotion	Proportion	95% upper bound	95% lower bound	p-value (chi-sq)
1% Chance to Win a Trip to Rome	0.230	0.207	0.254	0.102
Jellycat Toy	0.234	0.211	0.259	0.214
3 x 2 Cinema Tickets	0.270	0.246	0.296	0.102
£10 Carbon Offsetting	0.266	0.241	0.291	0.214
6,000 Nectar Points	0.254	0.231	0.280	0.744
1% to Win Back Premium	0.162***	0.142	0.183	< 0.001
10% Cashback	0.302***	0.276	0.328	< 0.001
£40 M&S Voucher	0.282**	0.258	0.308	0.009
10% Discount	0.306***	0.281	0.333	< 0.001
Free Add-on	0.115***	0.098	0.135	< 0.001
£40 Discount	0.341***	0.314	0.368	< 0.001
1 Month Free	0.238	0.215	0.263	0.359

Table 12: Exploratory analysis II *(not pre-specified)* – Likelihood of calculating price of individual policies correctly

	Price comprehension	
	Likelihood of calculating prices correctly	
	OLS	logistic
	(1)	(2)
Promotion – Ref: No promotion		
1% Chance to Win a Trip to Rome	-0.024 (0.019)	-0.024 (0.016)
Jellycat Toy	-0.039* (0.019)	-0.039* (0.016)
3 x 2 Cinema Tickets	-0.042* (0.019)	-0.042** (0.016)
£10 Carbon Offsetting	-0.048* (0.019)	-0.048** (0.016)
6,000 Nectar Points	-0.147*** (0.019)	-0.147*** (0.016)
1% to Win Back Premium	-0.052** (0.019)	-0.052** (0.016)
10% Cashback	-0.197*** (0.019)	-0.197*** (0.015)
£40 M&S Voucher	-0.140*** (0.019)	-0.140*** (0.016)
10% Discount	-0.505*** (0.015)	-0.505*** (0.009)
Free Add-on	-0.141*** (0.019)	-0.141*** (0.016)
£40 Discount	-0.454*** (0.016)	-0.454*** (0.011)
1 Month Free	-0.491*** (0.015)	-0.490*** (0.010)
Policy – Ref: Blue policy		
Green policy	-0.015** (0.005)	-0.015 (0.009)
Orange policy	0.008 (0.005)	0.008 (0.009)
Red policy	-0.006 (0.004)	-0.006 (0.009)
Constant	0.561*** (0.013)	
Observations	20,052	20,052
R^2	0.127	
Adjusted R^2	0.126	
Log Likelihood		-12,150.550
Akaike Inf. Crit.		24,333.100
F Statistic	2,906.660***	

Notes: *$p<0.05$; **$p<0.01$; ***$p<0.001$

Log odds were transformed into average marginal effects (AMEs) for ease of interpretation. Constants are not displayed for logistic regressions as there are no AMEs associated with them.
OLS standard errors are heteroskedasticity robust.

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