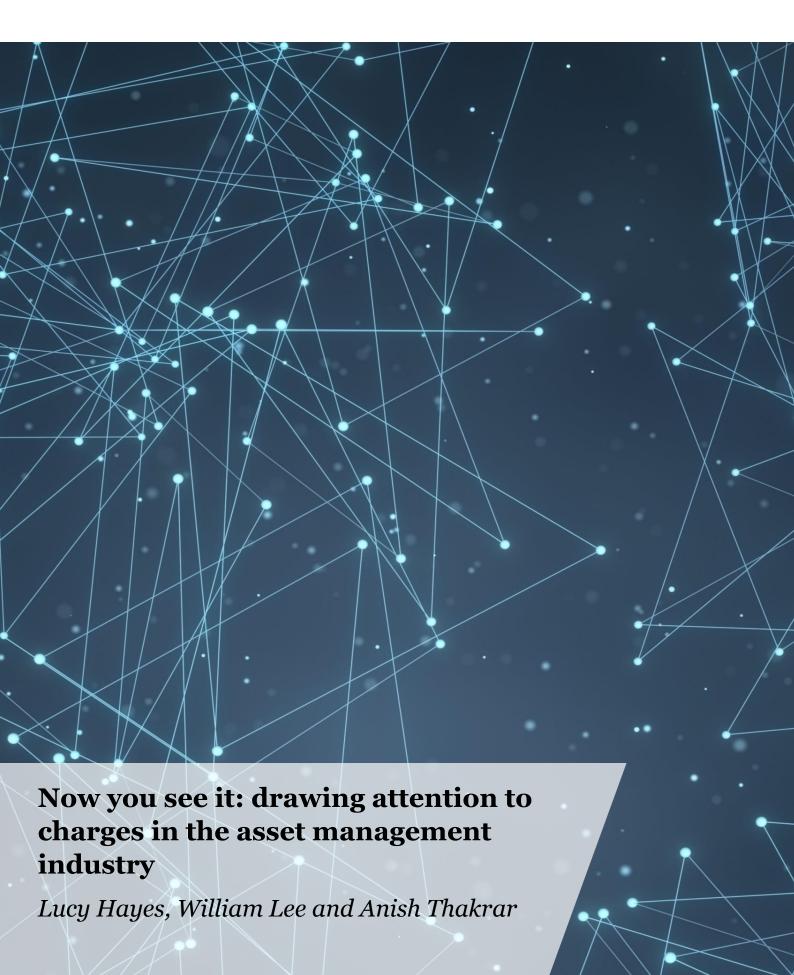
# **Financial Conduct Authority**

Occasional Paper 32

April 2018



# FCA occasional papers in financial regulation

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# 1 Executive summary

The UK's asset management industry is the second largest in the world and manages around £8.1 trillion of assets, which includes over £1 trillion in retail investment products. In 2017, the Financial Conduct Authority (FCA) assessed whether the industry is working well and found weak price competition in a number of areas. It found that some charges might not always be visible to retail investors and, even when they were, investors might not pay sufficient attention to charges or understand their impact on investment returns. The low visibility of charges and lack of understanding can create harm in two ways: directly by causing investors to hold poor value for money products, and indirectly through reducing competition between asset managers to lower charges over time.

New European regulatory requirements mean that, as of the beginning of this year, asset managers and other investment firms now need to give more information, including a single charge figure in pounds and pence. However, making information available does not necessarily mean that investors will take notice of or understand it. Previous research has shown that the way information is presented can affect how consumers access, assess or act on it. <sup>3</sup>

Before making any further policy interventions, we wanted to test the impact of different ways of presenting charges (our 'treatments') on investors' decision-making and their understanding and awareness of charges. We carried out an experiment which simulated an online investment platform and recruited over one thousand non-advised investors to participate in the research. Drawing on the relevant behavioural literature as well as our own qualitative research we developed four treatments to test.

In summary, all of our treatments increased the proportion of investors choosing a cheaper fund and some of the effects were sizable. However, the increased focus on charges did not seem to reduce the importance that participants placed on other fund characteristics such as performance or risk. A warning message appeared to improve decision-making, particularly when it was coupled with a chart showing the impact of charges or a screen providing a summary of charges just before an investor purchased a fund. The treatments which were most impactful were also prominently positioned on pages which all investors had to view.

## What was our approach?

The experiment presented the investors with a choice of six actively managed UK equity funds and asked them to select the one they would invest in. Each fund was part of a pair of funds which were broadly the same, except one fund was cheaper than the other.

 $<sup>^{1}</sup>$  HM Treasury, The UK Investment Management Strategy II (December 2017).

 $<sup>^2\ \</sup>underline{www.fca.org.uk/publication/market-studies/ms15-02-1.pdf}$ 

<sup>&</sup>lt;sup>3</sup> For example, information located on the top of a page is likely to be more effective than that at the bottom of a page (Bergstrom & Schall, 2014). In addition, presenting information using simple language or images and graphics can help consumers to understand the information (Pinker,1990 and Bhargava & Loewenstein, 2015).

Individuals were randomly assigned to see one of four treatments that provided additional information about charges, or to be in the control group designed to mimic current disclosure in the market. For each treatment and the control, we also provided all fund charges in pounds and pence, as well as a percentage.

To evaluate the quality of investors' decision-making and the effect of our treatments, the main outcome we measured was the percentage of participants selecting one of the cheaper funds within each pair. Our set-up meant that a participant selecting a fund randomly would have a 50% chance of selecting a cheaper fund. Each participant repeated this choice task three times, under the same treatment, before answering a number of survey questions. These questions tested their understanding and awareness of charges, asked about the factors they considered in their decision and asked whether they would have invested in their chosen funds in reality. We selected participants who were the main financial decision-maker in their households, had invested in an actively managed fund before and had more than £10,000 of investable assets.

The treatments which we tested were:

Warning	A warning reminding participants to check how much they were paying and that charges can have a significant impact on their returns. This was at the top of the page containing the six funds.
Warning & impact chart	Includes a graph depicting the impact of a small difference in charges on net returns over time. This was also at the top of the page containing the six funds.
Warning & comparator chart	Includes a chart comparing a fund's charges to others in the same asset class. This was on fund-specific pages which investors could open as pop-ups.
Warning & review screen	Includes a screen that appears once investors have selected a fund. This provides a summary of the costs and charges for their chosen fund as well as the comparator chart (in the previous treatment). Participants must either confirm their choice or go back to look at the available funds again.

#### What did we find?

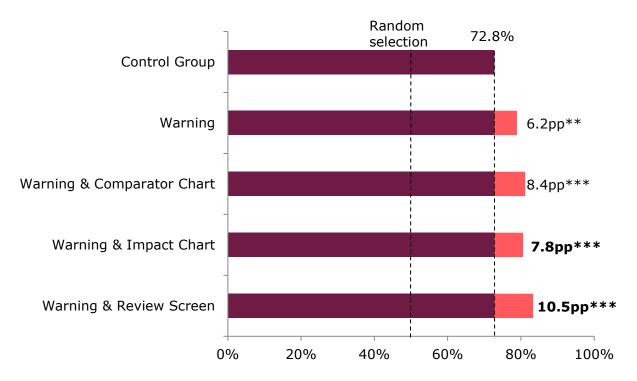
As shown in Figure 1, the **Warning & Review Screen** had the largest impact on decision-making. It led to a 10.5pp (percentage point) increase in the proportion of participants selecting a cheaper fund. This treatment also led to an improvement in awareness and understanding as measured by our survey questions. For example, we found a 11.3pp increase in the ability of participants to recall how the charges for their chosen fund compared to the others they were shown. The **Warning & Impact Chart** also had a significant impact on decision-making but a more limited impact on participants' awareness and understanding.

While the inclusion of the **Warning & Comparator Chart** appeared to have an impact on the likelihood of participants selecting a cheaper fund, this result is less robust. Unlike

other treatments, as the comparator chart contained information about one particular fund, we placed this on the fund specific pages which participants could choose to open in a pop-up window. In 54% of choices for this treatment group, participants did not click on any of these pages. In contrast the review screen treatment, which also contained the comparator chart and which all participants had to view, had a larger effect.

We found some evidence the **Warning** had an impact on decision-making but there is some evidence to suggest it was more effective when combined with either the review screen or the impact chart.

Figure 1 – Percentage of participants selecting one of the cheaper funds by treatment and associated treatment effects



Note: Total N=3,147 (3 choices each by 1,049 participants). Unweighted treatment effects are presented. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level. Treatment effects in bold are both statistically significant at least at the 5% level and are robust to weightings being applied.

We wanted to estimate the average impact on the population of UK non-advised investors. However, as we were unable to achieve our exact target sample, we applied weights to approximate these population effects.<sup>4</sup> When we did this, we found that the **Warning & Review Screen** and **Warning & Impact Chart** continued to be statistically significant. However, we cannot be confident that the **Warning & Comparator Chart** and **Warning** had a robust impact on the population of non-advised investors.

Although some of our treatments led to participants selecting cheaper funds, it appears they did not change the attention they placed on other fund characteristics including performance and risk. As shown in Figure 2, the proportion of participants selecting high performing funds in any treatment group was not statistically significantly different to the control group. We also found similar results for low and medium performing funds. When we asked what factor was most important in their decisions, the difference in participants' responses between the control and treatment groups were not statistically significant.

<sup>&</sup>lt;sup>4</sup> Full details of our approach to weighting are in Annex 7 of the technical report (London Economics, 2018).

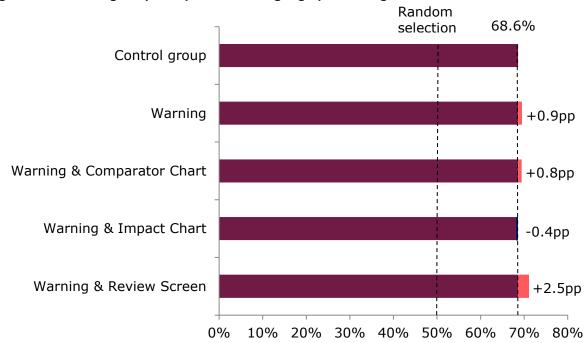


Figure 2 - Percentage of participants selecting high performing funds by treatment

Note: Total N=3,147 (3 choices each by 1,049 participants). Unweighted treatment effects are presented.

### What did we learn?

Previous research has shown that across a range of financial markets, including the asset management market, disclosure can have a limited impact on consumers' decision-making. <sup>5</sup> In contrast, this study shows that a number of behaviourally informed treatments can impact investors fund choices and, in some cases, their understanding of charges. Importantly, we found that none of the treatments appear to change the importance participants place on other fund characteristics, such as performance or risk.

The warning message appears to be effective in influencing decision-making, likely due to the fact that it simply and directly instructs investors to consider charges. The effect is enhanced when combined with figures designed to graphically illustrate the impact of charges on returns and to make comparisons with the charges of other comparable funds.

The placement of the disclosure also seems to play a role, with the more prominent treatments having the largest impact on decision-making. The warning and impact chart were at the top of the landing page whilst all participants in the review screen treatment had to view the comparator chart to proceed with their decision. In contrast, the comparator chart was placed on pages which participants had to click on to access and we found this had less impact.

<sup>&</sup>lt;sup>5</sup> For financial products in general, this argument is made by Campbell, Jackson, Madrian, & Tufano (2011), Bubb & Pildes (2014) and Ben-Shahar & Schneider (2014). For asset management in particular see Choi, Laibson, & Madrian (2009).

## What are the implications for the FCA's policy approach?

The Asset Management Market Study highlighted the importance of clear disclosure of what asset management services cost through the presentation of a single charge. The recast Markets in Financial Instruments Directive (MiFID II) and the Packaged Retail and Insurance-based Investment Products (PRIIPs) Regulation have recently introduced greater disclosure of all costs and charges, including transaction costs. Consumers should now see the full costs and charges, expressed as a single fee, for most transactions in investment products, and on an ongoing basis.

This is a significant step forward but how this information is presented will be important if it is to help consumers make more informed choices. We believe that the findings from this research on the importance of disclosing costs and charges in a clear and meaningful way are consistent with a significant body of previous work. The FCA has stated that firms should consider these results when thinking about how their disclosures are working. The FCA will consider changing rules and guidance to mandate certain forms of disclosure in light of the outcome of the Investment Platforms Market Study.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> www.fca.org.uk/publications/market-studies/ms17-1-investment-platforms-market-study

## 2 Research context

#### Market context

The UK's asset management industry is the second largest in the world and manages around £8.1 trillion of assets, which includes over £1 trillion in retail investment products. Investment platforms, or fund supermarkets, are an increasingly important part of the retail distribution landscape. The platform sector has steadily grown over the last eight years, with assets under administration (AUA) increasing from £108 billion in 2008 to £592 billion in 2016. Investors are increasingly selecting their own investments without advice. In 2016 approximately £170bn was invested through direct to consumer (D2C) platforms which allow investors to access information and tools to inform their investment choices and to execute, review and potentially change their investments without advice.  $^9$ 

## Why do charges matter?

It is important that investors take charges information into account when selecting funds. Charges act as a drag on performance and impact the return which investors actually receive. While performance is volatile and the consensus is that past performance is not a good indicator of future performance, investors will always incur charges. <sup>10</sup> Due to compounding, over time, a seemingly small difference in charges can have a significant impact on returns.

Some investors might choose to invest in funds with higher charges in the expectation of achieving higher returns. However, research from the US has suggested that cheaper active funds deliver higher returns than more expensive funds in the same investment category. Analysis undertaken by the FCA as part of the Asset Management Market Study found no clear relationship between charges and gross performance for retail active funds in the UK. There was some evidence of a negative relationship once charges are taken into account. This suggests that when choosing between active funds investors paying higher prices for funds, on average, do not necessarily achieve better net returns.

The FCA's market study concluded that there was evidence of weak price competition in a number of areas of the asset management industry. The FCA's analysis showed that there were high levels of profitability across the sample of firms and considerable price clustering for active funds. There was little evidence that firms compete on the basis of price. This suggests that drawing attention to charges, alongside other factors such as

 $<sup>^{7}</sup>$  HM Treasury, The UK Investment Management Strategy II (December 2017).

<sup>&</sup>lt;sup>8</sup> Platforum *UK Adviser Platform Guide* Issue 29, Figure 10 (March 2017).

<sup>&</sup>lt;sup>9</sup> Platforum *UK Adviser Platform Guide* Issue 29, Figure 10 (March 2017).

<sup>&</sup>lt;sup>10</sup> See Quigley & Singuefield (2000) and Fletcher & Forbes (2002).

 $<sup>^{11}</sup>$  Gil-Bazo & Ruiz-Verdu (2008), Gil-Bazo & Ruiz-Verdu (2009), Carhart (1997) and Morningstar (2016).

 $<sup>^{12}\ \</sup>underline{www.fca.org.uk/publication/market-studies/ms15-2-3-annex-4.pdf}\ .$ 

performance and service, might allow investors to drive more effective competition between asset managers.

## Do investors pay enough attention to charges?

Consumer research undertaken as part of the FCA's market study revealed that investors' awareness and focus on charges is mixed. The research found a significant number of investors were unaware that they were even paying for their asset management services. Furthermore, the FCA's analysis of browsing data from an online investment platform found that few investors seek out charges information. Of all the visits to the website to look at funds, fewer than 9% of visitors looked for charges information. Academic research has indicated that investors do not tend to make decisions that minimise the charges they pay. 15

The market study also identified some specific examples of people investing in products which were unlikely to deliver good value for money. This included £109bn in active funds which closely mirror the performance of the market but are considerably more expensive than passive funds. <sup>16</sup> Similarly, academic research has shown that there are considerable numbers of investors selecting passive funds with high charges, where cheaper alternatives are available which are almost certain to generate higher returns (Hortacsu & Syverson, 2004).

This suggests that some investors might not be paying sufficient attention to charges in their decision-making.

## Why might investors not pay enough attention to charges?

There are a number of potential behavioural explanations for why investors might not pay enough attention to charges.

Firstly, we know that investors have limited attention spans when making investment decisions. The prominence that information is given can have a significant impact on how much investors focus on it. For example, information located on the top of a page is likely to be more effective than that at the bottom of a page (Bergstrom & Schall, 2014). In the asset management market, research has found that making charges information easier to find may have a limited impact on investors choosing cheaper funds (Choi, Laibson, & Madrian, 2009; Fisch & Wilkinson-Ryan, 2014). Carlin (2009) finds that firms might have an incentive to make their charges more complex or less transparent to reduce competitive pressure. Similarly, fund advertising could play an important role. Cronqvist (2005) claims that only a small fraction of fund advertising is informative about important characteristics, such as fund fees.

Secondly, investors might find it difficult to understand and compare information on charges. When faced with complicated decisions and lots of information, consumers often use simplified decision-making mechanisms to make choices.<sup>17</sup> So more information will

 $<sup>^{13}\ \</sup>underline{www.fca.org.uk/sites/default/files/publications/market-studies/ms15-2-2-annex-3.pdf.}$ 

<sup>&</sup>lt;sup>14</sup> www.fca.org.uk/publication/market-studies/ms15-2-3.pdf.

<sup>&</sup>lt;sup>15</sup> See Choi, Laibson & Madrian (2009).

 $<sup>{\</sup>color{blue} {}^{16}} \ \underline{www.fca.org.uk/sites/default/files/publications/market-studies/ms15-2-2-interim-report.pdf.}$ 

<sup>&</sup>lt;sup>17</sup> www.fca.org.uk/publication/occasional-papers/occasional-paper-1.pdf.

not necessarily lead to better decisions. The format in which charges information is provided can affect how likely it is that investors will pay attention to and understand the information. Chater, Huck, & Inderst (2010) and Hastings & Tejeda-Ashton (2008) have shown that investors can make better investment decisions when presented with charges in pounds and pence rather than as a percentage. Expressing information in simple language can help consumers to understand the information as can presenting information in images or graphs alongside text.

Thirdly, investors might mistakenly consider small differences in charges to be unimportant when making investments. We know that due to compounding, over time, even a small difference in charges can have a significant impact on net returns. It has been well documented that investors might struggle with even basic financial calculations (Lusardi & Mitchell, 2009) so they might not appreciate the impact of charges on returns over time (Choi, Laibson, & Madrian, 2006).

Finally, we know that many investors pay attention to past performance (which is net of charges) when selecting a fund. There is evidence that some investors may focus more on past performance than charges when selecting funds, believing that funds which have performed well in the past will perform well in the future. This belief is not supported by UK academic analysis, which has found that the majority of funds with historical outperformance do not continue to outperform the relevant market index or peer group for more than a few years. This suggests that some investors could incorrectly assume that past performance will continue (this is known as extrapolation bias). They may pay too much attention to past performance, possibly at the expense of other important factors such as charges.

## Experiments as a remedy tool

We used an online experiment to test the effect of different disclosure measures relating to how charges are presented to investors. Experiments help us to make sure that any remedies we are thinking about introducing are likely to address the concerns we have identified. The methodology involves assigning participants to different treatments, and comparing the outcomes of each group to a control group. As outlined in Iscenko, Duke, Huck & Wallace (2014), the principal benefit of experiments over other methodologies is that they offer control over the experiment setting. This allows the effect of specific changes to be isolated. Where it is appropriate and proportionate to do so, the FCA has increasingly been using experiments in both hypothetical and real world settings, to test the potential effects of specific remedies. This study contributes to this body of work.

The paper is organised as follows. The second section briefly explains the research design we used, the third section presents the results from the study and the final section discusses these. The full technical report by London Economics on the research, containing a more detailed discussion of the methodology, the analysis and findings, is available as a separate online appendix to this paper.<sup>22</sup>

<sup>&</sup>lt;sup>18</sup> See Bettman, Payne & Staelin (1986) and Paredes (2003).

<sup>&</sup>lt;sup>19</sup> See The Behavioural Insights Team (2012), Pinker (1990) and Bhargava & Loewenstein (2015).

<sup>&</sup>lt;sup>20</sup> See Neil Weinberg, Fund Managers Know Best: As Corporations are Fessing Up to Investors, Mutual Funds Still Gloss Over Costs, Forbes Mag., Oct. 14, 2002, at 220.

<sup>&</sup>lt;sup>21</sup> See Quigley & Singuefield (2000) and Fletcher & Forbes (2002).

<sup>&</sup>lt;sup>22</sup> https://www.fca.org.uk/publication/research/asset-management-market-study-behavioural-research.pdf.

# 3 Research design

This section describes our methodology including the sample we used, the experiment environment and how we constructed the funds. It then presents details of the treatments we tested and the survey.

To inform the design of the experiment and help us interpret the findings, we undertook a number of pieces of qualitative research:

- Three preparatory focus groups with investors: these were held before the experiment and informed the development of the experiment environment and the treatments.
- **Four focus groups with advisers:** whilst our treatments were mainly designed for non-advised investors we wanted to understand whether they might also have an impact on those who invest after seeking advice.
- Twelve in-depth interviews: these were telephone interviews with participants
  after they had undertaken the experiment. They allowed us to gain further
  insights into participants' decision-making process and the impact of the
  treatments on this. We also discussed the extent to which their decisions might
  differ in a real-life context.

Ahead of undertaking the fieldwork, we also piloted the experiment and survey with 100 participants.

## **Sample selection**

We selected a sample of 1,049 participants who were financial decision-makers in their households, had invested in an active fund before and had at least £10,000 of investable assets. We wanted our sample to be representative of the population of UK non-advised investors based on previous research undertaken as part of the Asset Management Market Study. However in practice it was not possible to achieve this (see Table A.1 in Annex for details of the target and attained populations). For all the analysis we therefore estimated treatment effects for our sample as well as for the population of interest in terms of age, region, gender, total investable assets and social grades (the 'weighted' results).

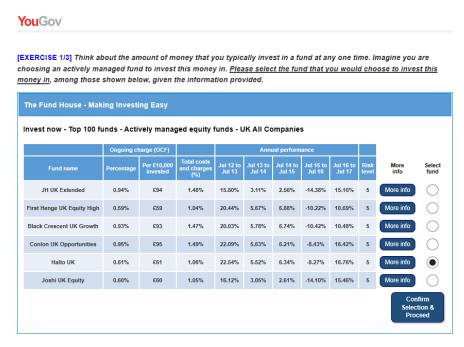
## **Experimental environment**

The experiment simulated an online investment platform. It focused on the point in the decision-making journey where an investor had already narrowed down their choice of funds to a small set.

Participants all initially saw a landing page (as shown overleaf) containing a table of six fictional funds. This listed information about each fund including the fund name, its

<sup>&</sup>lt;sup>23</sup> Full details of our approach to sampling and weighting are in Annex 7 of the technical report (London Economics, 2018).

annual performance for the last 5 years and the risk categorisation.<sup>24</sup> To account for regulatory changes which were being introduced under MiFID II, participants were also presented with the Ongoing Charges Figure (OCF) in pounds and pence as well as a total costs and charges figure (which was made up of the OCF, the platform charge and transaction costs). From this page, participants could either select a fund to invest in or could read further details about a particular fund by opening a pop-up.



The pop-up contained detailed information across two pages including the fund objectives and asset allocation. To align with MiFID II requirements, the pop-up contained a table showing the breakdown of the total costs and charges figure into its component parts in both pounds and pence and as a percentage. Participants were able to minimise the pop-ups for different funds or open multiple funds in different tabs at the same time as they might in real life.

The experimental environment was simplified to make sure that it did not become too complex and that we were able to accurately measure the impact of our treatments on decision-making. Based on desk research, we designed the experimental environment carefully to make sure that it replicated the most important features of online investment platforms as closely as possible. This included the information provided, how participants could navigate through it and its general look and feel. We created mock-up pages which we tested in our focus groups and pilot. This ensured they were as similar to investors' expectations as possible and that they captured all the information which investors would require to make an investment decision.

## **Experimental task**

Before undertaking the choice experiment, we told participants that they would be asked to select funds on a simulated platform. To make the choice more realistic to the participant, we asked them to think about the amount of money they typically invest at any one time. We told them that they should imagine they were investing this amount in

<sup>&</sup>lt;sup>24</sup> Full details of the experimental environment, including additional screen shots, can be found in section 2.1 of the technical report (London Economics, 2018).

an actively managed fund. The introduction encouraged them to select the fund they would choose to invest this money in, given the information provided. They were told that there were no right or wrong decisions and reminded to behave as they would in real life. In addition, we showed participants a screen explaining the elements and functionality of the platform to make sure that they were aware of how they could interact with the simulated platform.

While we provided participants with an incentive to participate in the experiment and survey, we decided not to reward participants who chose one of the cheaper funds in the experiment. While this could have incentivised participants to pay more attention to the choice task, there was a risk that they would behave as they thought they should rather than how they would in real life. Although investors were required to select a single fund, in reality we acknowledge that investors might have invested in more than one, or even none, of the funds shown or might have focused on a different set of funds altogether.

#### **Fund selection**

We presented each participant with a set of six funds, and asked them to select one. This exercise was repeated three times per participant. To allow us to measure the impact of our treatments on participants' decision-making, we constructed the fund sets in a specific and systematic way:

As presented below, each fund set was made up of three pairs.<sup>25</sup>

- We varied charges within a pair so that each pair contained a fund with a low charge and one with a high charge.<sup>26</sup>
- We also varied performance so that each pair either had a low, medium or high past performance level.
- All the other fund characteristics (for example asset allocation, risk-level and fund objectives) either had no, or very minimal, differences across funds.<sup>27</sup>

	Charge level	Past performance
Fund 1	Low	Low
Fund 2	High	Low
Fund 3	Low	Medium
Fund 4	High	Medium
Fund 5	Low	High
Fund 6	High	High

<sup>&</sup>lt;sup>25</sup> We used 6 funds (i.e. 3 fund pairs), rather than a single fund pair, for a number of reasons: 1) we understand from consumer research undertaken as part of the Asset Management Market Study that investors typically consider 2-5 funds before making their investment decision, 2) having 6 funds with randomised ordering means participants are less likely to notice that funds are constructed with minimal variations in a number of features, and paired in the way described, and therefore offer a more realistic experience, and 3) allowing for funds with varying performance levels within a fund choice set allowed us to assess whether the treatments have any impact on investors' sensitivity to past performance.

 $<sup>^{26}</sup>$  We set the charges such that the OCF and the total costs and charges figure were always proportionate to each other. The platform charge was also always constant between and across fund sets.

<sup>&</sup>lt;sup>27</sup> Qualitative fund characteristics, such as a fund's name, were randomised, so we would not expect to see a systematic effect from qualitative characteristics. The small variations within quantitative fund features were also randomised.

We systematically varied the average charge levels and the differential between pairs (i.e. the difference between the low charge and the high charge) across fund sets. This allowed us to see the impact of our treatments across different fee levels and fee differentials. In total we created 90 fund sets which participants were randomly allocated to in each of the three choice experiment rounds. <sup>28</sup> The order of the funds was also randomised to prevent participants being able to identify any patterns and to control for any ordering effects. We also used fictitious fund names to avoid associations with popular brands and randomly allocated these to funds.

The only systematic difference within a pair of funds was the level of charges. It was not revealed to the participants that there were pairs of funds in each set, and this design was solely to allow us to measure the proportion of participants selecting the cheaper funds and to observe how this varied by treatments. We note that we would expect participants selecting a fund randomly to choose one of the cheaper funds 50% of the time. We interpret the difference between treatments for this outcome as the treatment effect on sensitivity to charges. We varied performance levels across fund pairs which allowed us to observe whether our treatments affected the degree to which investors considered past performance in their decision-making.

In our experiment participants were faced with a relatively similar set of funds. In reality investors would have access to a greater diversity of funds but this set-up was necessary to enable us to understand the impact of our treatments on decision-making.

#### **Treatments**

We tested the impact of four different treatments which presented charges information to investors in different ways. We compared these to a control group which did not contain any treatments and was designed to reflect current market practice as well as regulatory changes which have recently been introduced by MiFID II. Participants were randomly allocated to one of the treatments or the control group.

Since participants were asked to make three consecutive decisions under similar decision environments, the risk of an investment decision being contaminated by a previous treatment was high. We therefore assigned each participant to a single treatment group for all three decisions and made sure that the profile of subjects across observable characteristics, namely age, gender, region, investible assets and social grade, was broadly similar in different treatment groups.<sup>29</sup>

We designed our treatments using insights from the existing behavioural literature.

The treatments which we tested were:

<sup>&</sup>lt;sup>28</sup> Across all fund sets and pairs, the ongoing charges of the funds ranged from 0.60% to 1.20%, which respectively reflected the 5<sup>th</sup> and 95<sup>th</sup> percentiles of the OCFs of UK equity funds found on the investment platform Hargreaves Lansdown. The *average level* of the charges of the funds in a particular fund set ranged from 0.69% to 1.11%. The *difference* between the ongoing charges of the high charge fund and the low charge fund in each fund pair was varied over three levels (17bp, 26bp and 34bp).

<sup>&</sup>lt;sup>29</sup> For very large sample sizes, we could rely on randomisation to limit the differences between participants across different treatment groups. However, given the limited size of our sample, we used stratified sub-samples to control for demographic differences across treatment groups.

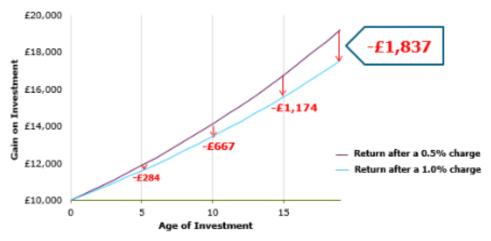
#### Warning

# WARNING CHECK HOW MUCH YOU ARE PAYING FUND CHARGES CAN SIGNIFICANTLY IMPACT INVESTMENT RETURNS

The warning was designed to draw investors' attention to the importance of charges. To make the warning as impactful as possible, we made sure that it was worded in a simple and actionable way. Research has shown that this can make it easier for people to understand and process (Kahneman, 2011). In addition, we designed it to be noticeable, using colour and bold text to make it stand out from the background and placed it prominently at the top of the landing page. We also explicitly used the word 'Warning' as research has shown that this is a 'signal word' which can be useful in getting people's attention (Braun & Silver, 1995).

## The following three treatments were combined with the warning: Impact chart

#### HOW ONGOING CHARGES REDUCE RETURNS OVER TIME



Over 20 years, a 1% charge can cost you an extra £1,837, compared to a 0.5% charge This graph assumes an initial £10,000 investment and a 4% annual return

The impact of compounding of fees over time is an important factor which many investors may not understand or consider in their investment decisions (Eisenstein & Hock, 2007, Stango & Zinman 2009). We know that images and graphics can be used to simplify complex concepts and can attract more attention than text (Pieters, Rosbergen & Hartog, 1996). And so, we designed this treatment to graphically illustrate the impact of fees on returns over time. We explicitly drew attention to the relative loss from the higher charge over time expressed in pound terms as we know that losses often resonate more with people than gains (Kahneman & Tversky, 1991). The chart was displayed on the landing page alongside the warning.

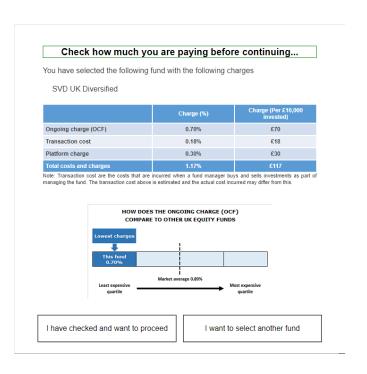
#### **Comparator chart**

# HOW DOES THE ONGOING CHARGE (OCF) COMPARE TO OTHER UK EQUITY FUNDS



We know that consumers do not always compare charges (Johnson, Moe, Fader, Bellmann & Lohse, 2004) and that being able to easily compare products can lead to consumers making better decisions (Lynch & Ariely, 2000). We designed this treatment to help participants understand how each fund's charge compared to others in the same asset class. They could also easily identify if a fund's charge was more or less expensive than average. It was displayed on the more detailed page for each fund and the warning was displayed on the landing page.

#### Review screen



After they had selected a fund, participants were provided with a summary screen containing the comparator chart (as described above) and a table listing all the costs and charges associated with their fund in both percentages and pounds and pence. They had to confirm they were content with the charges of their chosen fund before making their investment. We designed this treatment to provide participants with charges information on a screen which they had to view before proceeding as we know that where

information is provided can have a significant impact on the attention consumers give it. This treatment also provided participants who might not have considered their initial decision carefully enough with an opportunity to make a more considered decision. This is similar to the way in which cooling-off periods have been shown to work in other markets (Camerer, Issacharoff, Loewenstein, O'Donoghue, & Rabin, 2003). Once again, the warning was also provided on the landing page.

The impact chart, comparator chart and the review screen were combined with the warning. This is because we thought that these would be more effective when used together. Our approach allowed us to measure the impact of these combinations by comparing the outcome for participants in each treatment to those in the control group.

We could also estimate the incremental effect of the impact of charges chart, comparator chart and the review screen on top of the warning by comparing them to the impact of the warning alone. This design does not allow us to measure the standalone treatment effects of the impact of charges chart, comparator chart, and the review screen, without the warning. This is because testing the impact of each individual component both on its own and then in combination would have required a far larger sample size, or testing fewer treatments, which we did not feel was proportionate.

### **Survey**

After participants had carried out the choice task they were asked a series of survey questions.<sup>30</sup> There were a number of types of questions designed to:

- Assess the impact of our treatments on participants' understanding and awareness of charges: participants were asked about the fund they selected in the final choice task. This included whether they recalled it had a charge and, if so, what range the charge was in, as well as questions about the different components of charges.
- Allow us to gain a deeper insight into the impact of our treatments on decision-making: for example participants were asked to rank the factors which were most important to them in making their fund choices and whether they thought brand names would have had an impact on their behaviour.
- Allow us to understand how participants made their decision, including whether they would have actually invested in their chosen fund in reality.
- Assess the financial literacy of participants.

Using the results of a pilot with 100 participants, we made sure that the survey was clear, minimised the risk of priming and was the right length to avoid respondent fatigue.

<sup>&</sup>lt;sup>30</sup> The full set of questions can be found in Annex 3 of the technical report (London Economics, 2018).

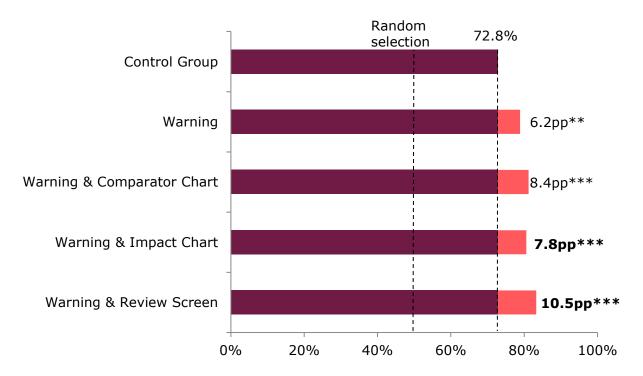
## 4 Results

This section presents our findings. For all the analysis we estimate treatment effects for our sample (the 'unweighted' results). We also provide treatment effects for the population of interest in terms of age, region, gender, total investable assets and social grades (the 'weighted' results). This population was identified at the outset and was based on previous research conducted to inform the Asset Management Market Study undertaken for the FCA by NMG consulting in 2016.  $^{32}$  In this section we present unweighted results, but we highlight the results that are statistically significant both with and without the weights in bold. The weighted results can be found in Tables A.2 and A.3 of Annex 1.

## Impact on decision-making

Figure 3 shows the impact of our treatments on the proportion of participants selecting one of the three cheaper funds in a fund set.

Figure 3 – Percentage of participants selecting one of the cheaper funds by treatment and associated treatment effects



Note: Total N=3,147 (3 choices each by 1,049 participants). Unweighted treatment effects are presented. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level. Treatment effects in bold are both statistically significant at least at the 5% level and are robust to weightings being applied.

<sup>&</sup>lt;sup>31</sup> We collected the sample of participants according to the known demographic profile of non-advised investors. However, as we were not able to exactly match that demographic profile, weights were placed on participants so that the weighted sample is representative of the population of interest. Full details of our approach to sampling and weighting are in Annex 7 of the technical report (London Economics, 2018).

 $<sup>{\</sup>color{red}^{32}} \ \underline{www.fca.org.uk/publication/market-studies/ms15-2-2-appendix-1.pdf.}$ 

The **Warning & Review Screen** had the largest effect and led to a 10.5pp increase in the proportion of participants selecting a cheaper fund relative to a control group which was already high (72.8%).

We found that 8.2% of participants who had been presented with the review screen decided to revisit the landing page instead of proceeding with the fund they had initially chosen. In the end 42.3% of these participants selected a different fund. We found that 65.4% of participants who went back to the landing page from the review screen had initially chosen a lower cost fund, whereas 84.6% ultimately selected a cheaper fund. This provides further evidence that the review screen component of this treatment contributed to the overall treatment effect we observed.

The **Warning & Impact Chart** led to a 7.8pp increase in those selecting a cheaper fund.

Some evidence suggested that the **Warning & Comparator Chart** led to participants selecting a cheaper fund. Unlike the other treatments, the comparator chart was placed on fund specific pages which participants could choose to open in a pop-up window. In 54% of choices made in this treatment group, participants did not examine the detailed pages for any fund.

The **Warning** on its own also had an impact on decision-making with a treatment effect of 6.2pp. Of all the treatments in the experiment, this is the smallest effect. The impact of the warning combined with another component (most notably the impact chart or review screen) relative to the control group was greater in size and robustness than the warning alone.

We wanted to estimate the average impact on the population of UK non-advised investors. However, as we were unable to achieve our exact target sample, we applied weights to approximate these population effects. When we did this, we found that the **Warning & Review Screen** and **Warning & Impact Chart** continued to be statistically significant. However, we cannot be confident that the **Warning & Comparator Chart** and **Warning** had a robust impact on the population of non-advised investors.

By design, we were unable to measure the standalone treatment effects of the impact of charges chart, comparator chart, and the review screen, without the warning. However, we undertook some exploratory analysis to estimate the incremental effect of the impact of charges chart, comparator chart and the review screen on top of the warning by comparing them to the impact of the warning alone. As shown in Figure 4, those with the warning plus another component were more likely to select a cheaper fund compared to those with just the warning but there was not a statistically significant difference between the warning and any of the other combined treatments.

Figure 4 – Treatment effects for the percentage of participants selecting one of the cheaper funds relative to control group and warning only

	Warning	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
Treatment Effects vs. Control group:	6.2pp**	8.4pp ***	7.8pp ***	10.5pp ***
Treatment Effects vs. Warning Only:		2.2pp	1.6pp	4.3pp

Note: Total N=3,147 (3 choices each by 1,049 participants). Unweighted treatment effects are presented. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level. Treatment effects in bold are statistically significant at least at the 10% level and are robust to weightings being applied.

We wanted to see how our treatments impacted sensitivity to charges across different fee levels and differentials and therefore varied these across fund sets. As shown in Figure 5, all the treatments led to increases in the likelihood of participants selecting a cheaper fund relative to the control group. This was true across different fee differentials and whether the fee level was above or below average, but not all of the differences were statistically significant. However, the treatment effects were largest and most significant when the fee differential was the largest or when the fee level was below the market average of 0.89%, indicating that participants were more sensitive to lower charges. It is particularly notable that the **Warning & Review Screen** had significant effects on decision-making across all the different fee differentials and levels. Whilst we used real-life charges data to inform our approach, we deliberately did not seek to match the exact distribution of fee levels and gaps between the pairs and across the fund sets which investors would actually face in reality. These findings, however, suggest that our treatments are likely to have an impact even if the distribution of charges in real life differs from those we constructed in our experiment.

Figure 5 – Percentage of participants selecting a cheaper fund by different fee differentials and levels

	Control Group	Warning Only	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
Small fee differential (N=1,260 choices)	70.5%	77.1%	80.3%**	77.7%*	81.5%***
Medium fee differential (N=1,053 choices)	76.5%	79.9%	80.1%	82.6%	86.2%**
Large fee differential (N=834 choices)	71.7%	80.5%*	84.1%***	82.3%**	81.8%**
Above average fee level (N=1,467 choices)	74.0%	77.3%	81.2%**	79.8%	85.4%***
Below average fee level (N=1,469 choices)	69.9%	80.0%***	81.5%***	81.2%***	79.8%***

Note: Unweighted treatment effects are presented. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level. Treatment effects in bold are statistically significant at least at the 10% level and are robust to weightings being applied. We defined a small fee differential as being 0.17pp, a medium fee differential as 0.26pp and a high fee differential as 0.34pp. The average fee level we used was 0.89%.

We wanted to understand how our treatments affected participants' decision-making in regards to performance. As shown in Figure 6, the proportion of participants picking high performing funds did not statistically significantly differ across treatments. This was also true for medium and low performing funds (shown in Table A.5 of Annex 1). The largest shifts we saw under the treatments were those moving from funds which had high performance and high charges to those which had high performance and low charges. This indicates that, through the treatments, we were able to change participants' sensitivity to charges without changing choices around performance.

Random 68.6% selection Control group Warning +0.9ppWarning & Comparator Chart +0.8ppWarning & Impact Chart -0.4pp Warning & Review Screen +2.5pp 0% 20% 40% 60% 80%

Figure 6 - Percentage of participants selecting high performing funds by treatment

Note: Total N=3,147 (3 choices each by 1,049 participants). Unweighted treatment effects are presented.

In the adviser focus groups, some advisers raised concerns that the warning might deter investors from investing in funds. Our evidence does not support this. In the survey we asked participants whether they would invest in their chosen funds in reality. The proportion of investors who said that they would not have invested was no higher under any treatment than in the control group (at around 40%). Among those who said they would not have invested, the most common reasons were requiring more information (16.7%) or not recognising any brands (10.4%). When asked what they would do with the money instead participants typically indicated that they would invest in another type of fund (24.9%) or another type of asset (14.1%).

## Impact on awareness and understanding

We wanted to understand the impact of our treatments on understanding and awareness of charges. To do this we asked participants a number of test questions about the fund they selected in the final round of the choice exercise. These results are shown in Figure 7.

Figure 7 – Percentage of participants answering understanding and awareness questions about their chosen fund correctly

For their chosen fund, they correctly identified:	Control group	Warning	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
It had a charge	88.9%	88.6%	92.3%	91.5%	91.5%
It had an OCF	58.5%	57.7%	63.3%	65.0%	68.2%**
All the types of fees they incurred	4.8%	7.5%	6.8%	12.6%***	10.0%**
The OCF range this fell in	35.3%	34.3%	42.5%	45.7%**	45.0%**
How the OCF compared to those in fund set	27.5%	37.8%**	37.2%**	34.1%	38.9%**
How the OCF compared to market average	23.7%	24.4%	29.0%	24.7%	49.8%***

Note: Total N=1,049. Unweighted treatment effects are presented. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level. Treatment effects in bold are statistically significant at the 10% level and are robust to weightings being applied.

The **Warning & Review Screen** led to improvements in participants' overall understanding and awareness of charges in almost all aspects. It improved participants' ability to identify all the types of charges they incurred and how the level of charges compared with those in the fund set. It increased the ability of participants to recall how the OCF of their chosen fund compared to the average for funds in the same asset class. This treatment effect of 26.1pp was the largest within the experiment and is notable because the market average figure was provided on the comparator chart. This suggests that participants took on board the information contained within it.

More participants in the **Warning & Impact Chart** treatment were able to correctly recall all the types of charges they were incurring. This treatment effect of 7.7pp relative to the control group was statistically significant. This treatment led to a 10.5pp increase in the proportion of participants who were able to identify the level of the OCF for their chosen fund. This was only statistically significant when the data were unweighted.

We do not find any evidence of the **Warning** on its own or the **Warning & Comparator Chart** having a statistically significant impact on understanding and awareness.

## Impact on importance placed on fund characteristics

We wanted to understand the impact of our treatments on the importance which participants place on various characteristics of the fund, including charges, past performance and risk.

After they had conducted the choice exercise, we asked participants to identify the top three fund characteristics they considered in their decision. The majority of participants said that performance was the most important factor (about 60%), followed by charges (around 20%) and then risk (around 8%), as shown in Figure 8. No treatment had a statistically significant effect on these proportions. We also found the fund characteristics they ranked as being among the top two or top three most important were fairly constant

across the treatments with only a few statistically significant differences between treatments and the control group (see Table A.4 in Annex 1 for more details).

70% 60% 50% 40% 30%

Charges of the funds Performance of the Riskiness of the funds

funds

Warning

Figure 8 – Factor which participants stated was most important to them in their decision-making

Note: Total N=1,019. Unweighted results are presented.

20%

10%

0%

■ Control group

■ Warning & Impact Chart

This suggests that our treatments only had a limited impact on the importance participants said they placed on different fund characteristics, but that they simply chose cheaper funds.

■ Warning & Review Screen

Our experiment did not capture all the fund characteristics which would be present in real-life. Brand is an important consideration to investors when selecting a fund. Although we included fictitious fund names, for legal reasons, we could not include brands in the experiment. We know that investors typically report brand and reputation as being factors they would consider when selecting funds. <sup>33</sup> In our survey, 21% of participants stated that seeing a particular brand would have affected their choice of fund. We recognise that the omission of brands is a limitation of the experiment. This might mean that the treatment effects which we see in the experiment might be more limited in a real-life setting.

## Impact on different groups of participants

We conducted some exploratory analysis comparing how our treatments affected different groups of participants and, in particular, by considering education and financial literacy. We believed that these factors were likely to have an impact on the likelihood of a participant selecting a cheaper fund. While the results appear to be interesting it should be noted the experiment was not designed to allow us to draw robust inferences from different segments. Care should be taken when interpreting these results due to the small sample sizes for some subgroups.

As shown in Figure 9, we found that in the control group, the proportion of participants choosing a cheaper fund does not significantly differ between those with or without a

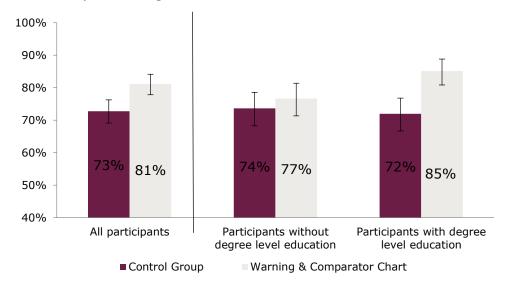
Other

■ Warning & Comparator Chart

 $<sup>^{33}\ \</sup>underline{www.fca.org.uk/sites/default/files/publications/market-studies/ms15-2-2-annex-3.pdf.}$ 

degree. <sup>34</sup> However, our findings show that the effect of the **Warning & Comparator Chart** was particularly strong among those with a degree both in terms of size and statistical significance.

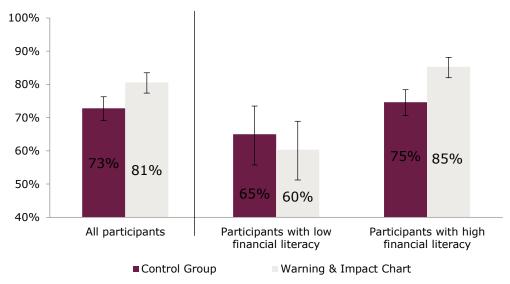
Figure 9 – Proportion of participants with the Warning & Comparator Chart selecting a cheaper fund by whether they have a degree



Note: Total N=3,147 (3 choices each by 1,049 participants). Error bars represent the 95% confidence interval of the sample mean.

We found that, in the control group, financial literacy had a significant impact on whether participants chose one of the cheaper funds. <sup>35</sup> Under the **Warning & Impact Chart**, participants with higher financial literacy were also more likely to select a cheaper fund and this effect was more prominent and significant than in the control group. This is shown in Figure 10 below.

Figure 10 – Proportion of participants with the Warning & Impact Chart selecting a cheaper fund by financial literacy



Note: Total N=3,147 (3 choices each by 1,049 participants). Error bars represent the 95% confidence interval of the sample mean

<sup>&</sup>lt;sup>34</sup> We defined participants as being degree holders if they had obtained a first degree (eg BA, B.Sc, B.Ed) or higher (eg M.Sc, Ph.D).

<sup>&</sup>lt;sup>35</sup> Participants are said to have 'high financial literacy' if they corrected answered two questions on financial literacy in the survey.

While these results provide interesting indications of the effect of our treatments, we recognise that the analysis is underpowered due to the relatively small sub-sample sizes. <sup>36</sup> Detailed regression output on the interaction between various participant characteristics and treatments are reported in Table A.6 of Annex 1, but these should be treated with caution.

 $<sup>^{36}</sup>$  The sub-sample sizes of participants with/without degrees or with/without large investable assets, in each treatment group, are around 300.

# 5 Conclusions and implications

### **Overview**

We tested multiple disclosure designs and found that these changed the decisions participants made and, in some cases, increased their understanding and awareness of charges. Participants were more likely to choose a cheaper fund when presented with any one of the treatments, relative to a control intended to mimic current disclosure in the market.

The most effective treatment highlighted the impact of charges on returns through a warning and provided summary information about the charges associated with a fund just before an investor made a purchase. This treatment led participants to choose cheaper equivalent funds and increased their subsequent awareness of fund charges. Our other treatments, including visual information on the impact of charges, and how the charges compared to other funds, also helped participants choose cheaper equivalent funds but did not have any effect on awareness. The treatments did not appear to change the attention participants placed on other fund characteristics, such as risk and brand.

There have been relatively few empirical studies testing the impact of the disclosure of charges in the asset management industry. Our research uses a large, policy relevant sample of investors, a realistic decision setting and tests feasible policy options. It combines several stages of qualitative research which informs and complements the experiment. We therefore believe this research offers new insights into the disclosure of charges information that can be helpful for investors.

#### What did we find?

All of our treatments increased the proportion of investors choosing a cheaper fund. While the warning on its own had some impact on decision-making, the effects were larger and more robust when it was coupled with another component, notably the review screen or the impact chart. While these differences were not statistically significant, our findings suggest that these additional components contributed to the overall effects. Most notably, the inclusion of the review screen alongside the warning led to improvements in understanding and awareness. Our analysis of how people interacted with the review screen showed that a large proportion of those who revisited their decisions chose cheaper funds. The scale of these effects is sizeable, particularly as the proportion of investors choosing a cheaper product in the control group was relatively high.

We acknowledge that our experiment was a necessary simplification of real-life, and that small changes in context may impact on real life decisions. However, as there is around £170bn invested through direct to consumer (D2C) platforms, we believe that even if the

effects were smaller in reality, over time due to compounding they would still have an economically meaningful impact on investor returns.

Previous research has shown that some investors might not pay significant attention to charges, but that other factors such as fund objectives, risk, asset allocation, performance and brand might be important to them in their decision-making. <sup>37</sup> The proportion of participants selecting high, medium or low performance funds did not change as a result of our treatments, nor did the factors which participants reported as being most important in their decisions. Our results suggest that the treatments we tested led investors to pay more attention to charges, without apparently altering the importance they placed on other fund characteristics. This is an important finding, and could have wider applications for how we think about disclosure in other complex decision-making contexts. In particular if there are situations where a better outcome or result could be achieved by encouraging consumers to focus attention on one dimension of a decision without affecting the attention they place on other features.

## How can we interpret these results?

There is evidence from other markets and other contexts that disclosures can have a limited impact on consumers' financial decision-making. And the FCA's own research has shown limited effects of disclosure for ongoing product choices across a range of financial products. 38 Choi, Laibson, & Madrian (2009) show that enhanced disclosure of fund charges has a limited impact on investor decision-making. However, in contrast to Choi, Laibson, & Madrian, the treatments we tested contained simple and short messages. The warning gave investors a clear and relatively strong instruction to consider fees and contributed significantly to our treatment effects. It is possible that this treatment required very little interpretation or thought by the participants in order to change their behaviour. For the other treatments, our results support other evidence that suggests that using colour, graphics and plain language can make information more noticeable and more likely to be acted upon. Our results also support a growing body of evidence that shows that where information is located can have an impact on how consumers engage with it. 39 The treatments which had the biggest impact on decision-making were prominently positioned; the warning and impact chart were at the top of the landing page whilst all participants in the review screen treatment had to view the comparator chart to proceed with their decision.

These results highlight that simply providing consumers with information does not guarantee that they will use it in their decision-making. However, clearly presenting understandable and engaging information in a prominent way can increase the effectiveness of disclosures.

<sup>&</sup>lt;sup>37</sup> See, for example, <u>www.fca.org.uk/sites/default/files/publications/market-studies/ms15-2-2-annex-3.pdf</u>

<sup>&</sup>lt;sup>38</sup> See Hunt, Kelly and Garavito (2015) and Smart (2016).

<sup>&</sup>lt;sup>39</sup> For example, information located on the top of a page is likely to be more effective than that at the bottom of a page (Bergstrom and Schall, 2014) and providing customers with information on page they have to click on to access can lead to poorer decisions (Smart, 2016).

## **Annex 1: Tables**

#### Table A.1 - Target and attained population

This table provides the target population for our research. This was designed to be representative of the population of UK non-advised investors based on previous research undertaken as part of the FCA's Asset Management Market Study. It also shows the population which we actually attained.

Demo	Demographic		Attained
Age	18-34	23.0%	10.5%
	35-54	35.0%	36.9%
	55+	42.0%	52.6%
Gender	Male	68.0%	78.7%
	Female	32.0%	21.3%
Social grade	Α	22.0%	28.8%
	В	39.5%	34.9%
	C1	21.0%	22.8%
	C2DE	17.5%	13.5%
Region	North	23.5%	19.9%
	Midlands	14.0%	14.0%
	East of England	7.0%	9.2%
	London	20.0%	15.3%
	South	23.0%	28.6%
	Wales	4.0%	4.3%
	Scotland	6.5%	7.9%
	Northern Ireland	2.0%	0.9%
Investable assets	£10,000-£29,000	24.0%	12.8%
	£30,000-£99,999	37.0%	34.9%
	£100,000+	39.0%	52.3%

### Table A.2 - Effect of treatments on decision-making

This table reports the weighted and unweighted results for the percentage of participants selecting one of the cheaper funds by treatment and associated treatment effects.

		Control group	Warning	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
	Selected a lower cost fund	72.8%	78.9%	81.2%	80.6%	83.3%
Unweighted	Treatment effect versus control group		6.2pp**	8.4pp***	7.8pp***	10.5pp***
	Treatment effect versus Warning Only			2.2pp	1.6pp	4.3pp
	Selected a lower cost fund	72.9%	78.2%	77.1%	80.3%	82.5%
Weighted	Treatment effect versus control group		5.3pp	4.2pp	7.4pp**	9.6pp***
	Treatment effect versus Warning Only			-1.1pp	2.2pp	4.3pp

Note: Total N=3,147 (3 choices each by 1,049 participants). \*\*\*/\*\* signifies statistical significance at 1/5/10 % level.

# Table A.3 – Weighted results for effect of treatments on understanding and awareness

This table reports the weighted results for percentage of participants answering understanding and awareness questions about their chosen fund correctly by the different treatments.

For their chosen fund, they correctly identified:	Control group	Warning	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
It had a charge	89.4%	87.4%	87.5%	88.9%	89.4%
It had an OCF	58.1%	56.4%	58.0%	61.7%	63.6%
All the types of fees they incurred	3.4%	7.5%	6.1%	13.8%***	8.8%**
The OCF range this fell in	37.7%	36.3%	40.7%	42.0%	44.4%
How the OCF compared to those in fund set	29.9%	39.1%	34.2%	32.7%	40.3%*
How the OCF compared to market average	24.9%	21.0%	28.4%	22.5%	45.1%***

Note: Total N=1,049. \*\*\*/\*\*/\* signifies statistical significance at 1/5/10 % level.

Table A.4 - Impact of treatments on stated importance of fund characteristics

This table reports the factors which participants said were most important to them in their decision-making by treatment.

	Control Group	Warning	Warning & Comparator Chart	Warning & Impact Chart	Warning & Review Screen
Most important factor					
Charges of the funds	22.2%	17.9%	21.7%	16.1%	18.5%
Performance of the funds	59.9%	62.7%	56.5%	63.2%	64.5%
Riskiness of the funds	6.8%	7.5%	7.2%	4.9%	7.6%
What the funds are invested in	5.3%	7.0%	6.8%	8.5%	5.2%
Objectives of the funds	4.3%	4.0%	6.8%	5.4%	3.3%
Names of the funds	1.4%	1.0%	1.0%	1.8%	0.9%
Among top 2 factors					
Charges of the funds	66.2%	66.2%	63.3%	62.3%	63.5%
Performance of the funds	87.9%	85.1%	79.2%**	83.9%	88.2%
Riskiness of the funds	16.4%	19.4%	21.3%	17.9%	20.4%
What the funds are invested in	16.4%	18.4%	17.4%	16.6%	17.5%
Objectives of the funds	11.1%	10.0%	15.9%	16.6%	9.0%
Names of the funds	1.9%	1.0%	2.9%	2.7%	1.4%
Among top 3 factors					
Charges of the funds	85.0%	84.6%	80.2%	84.8%	88.6%
Performance of the funds	95.2%	93.5%	90.8%*	90.6%*	93.8%
Riskiness of the funds	48.3%	52.2%	50.7%	48.4%	52.1%
What the funds are invested in	37.2%	37.8%	42.5%	37.7%	35.5%
Objectives of the funds	30.0%	29.4%	32.4%	32.7%	27.0%
Names of the funds	4.3%	2.5%	3.4%	5.8%	2.8%

Note: Total N=1,049. Weights not applied. \*\*\*/\*\*/\* signifies statistical significance different from control group at 1/5/10 % level.

#### Table A.5 – Impact of treatments on choices around performance

This table reports the percentage of participants selecting high, medium and low performing funds by treatment.

	Control Group	Warning	Warning & Comparator Chart:	Warning & Impact Chart:	Warning & Review Screen:
Low performance	9.7%	12.1%	10.8%	10.8%	9.0%
Medium performance	21.7%	18.4%	19.8%	21.1%	19.9%
High performance	68.6%	69.5%	69.4%	68.2%	71.1%

Note: Total N=3,147 (3 choices each by 1,049 participants). Weights not applied.

# Table A.6 – Regression results for percentage of participants selecting a cheaper fund by education, financial literacy and investable assets

We estimate the following logistic specification for the sample of participants i, receiving treatment k, where p is the probability of selecting one of the cheaper funds. The constant term  $\beta_0$  reflects the log odds of choosing one of the cheaper funds for respondents in the control group (k = 1), without the characteristic of interest. The investor characteristics that we tested separately are whether they have degree-level education, whether they have high financial literacy, and whether they have investable assets over £75k.

Under the logistic model specification, explanatory variables with positive coefficients are associated with an increase in p, while variables with negative coefficients are associated with a decrease in p.

 $In(p/(1-p)) = \beta_0 + \beta_1 \cdot characteristic \ dummy_i + \beta_{2k} \cdot treatment_k + \beta_{3k} \cdot characteristic \ dummy_i \cdot treatment_k + \varepsilon_i$ 

Characteristic:	Degree-level education	High financial literacy	Assets over £75k
VARIABLES			
Characteristic	-0.0861	0.461**	0.193
	(0.200)	(0.226)	(0.203)
Treatment W	0.140	0.178	0.374
	(0.216)	(0.314)	(0.245)
Treatment W&C	0.159	0.114	0.336
	(0.206)	(0.301)	(0.246)
Treatment W&I	0.191	-0.200	0.811***
	(0.212)	(0.290)	(0.274)
Treatment W&R	0.407*	0.382	0.764***
	(0.233)	(0.343)	(0.270)
Characteristic • Treatment W	0.372	0.241	-0.0826
	(0.321)	(0.365)	(0.324)
Characteristic • Treatment W&C	0.645**	0.481	0.184
	(0.310)	(0.350)	(0.317)
Characteristic • Treatment W&I	0.532*	0.876**	-0.585*
	(0.320)	(0.348)	(0.338)
Characteristic • Treatment W&R	0.378	0.273	-0.252
	(0.321)	(0.388)	(0.336)
Constant	1.029***	0.619***	0.879***
	(0.134)	(0.194)	(0.154)
Observations	3,147	3,147	3,147

## **Annex 2 - References**

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