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Flicking the Switch: How Fee and Return Disclosures Drive Retirement Plan Choice*

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Flicking the Switch:

How Fee and Return Disclosures Drive Retirement Plan Choice[#]

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Abstract

Short, standardized financial product disclosures should make comparisons easier, support better choices and reduce welfare losses. Using incentivized experiments, we investigate how and when prescribed fee and return information in standardized disclosures prompt efficient switches between retirement plans. Our choice data suggests members rely accurately on fee information but are reluctant to use returns information as a basis for switching plans, even when a switch is warranted. This reluctance persists even when returns have very low volatility. In addition, many of the prescribed information items are poorly understood by members. A simplified disclosure format can lead to more efficient comparisons of returns and significantly higher final account balances.

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1. Introduction

Disclosure standards are the stock-in-trade of financial regulators. Setting standards for transparency and comparability is a way to promote free markets and individual autonomy while reducing market inefficiency (Loewenstein et al. 2014). Over the past decade financial regulators have begun to tighten the rules around disclosures in response to the increasingly complex financial choices being offered to consumers, and the significant losses associated with mistakes (Campbell 2016). As a result, investment fund disclosures in the U.S. and Europe, for example, have been corseted into a few pages of strictly controlled information (SEC 2007; European Commission 2009, 2012). These short, identically structured disclosures are meant to make comparisons between competing products easier, improve choices and reduce welfare losses. Such benefits, however, do not come without costs, including unforeseen effects on consumer decisions.

We study whether standardized retirement plan product disclosures have the intended effects on plan member choice (see also Beshears et al. 2011; Venti 2011; Gillis 2015; Colaert 2016). In particular, we investigate whether prescribed fee and investment return information triggers a timely decision to switch out of an underperforming plan. In an experimental setting, we ask retirement plan members to first review short disclosures and then choose between two plans over repeated rounds. Our results have implications for questions regarding consumer responses to returns and fees, for the design of comparative information on pension plans and retail investment vehicles – which items and formats are understood and influence decisions - and for the implementation of disclosure testing.

The vehicle for exploring these questions is the recently introduced MySuper dashboard, set in the context of the mandatory Australian retirement savings (superannuation) system. In this system, low engagement among plan members is common (Bateman et al. 2014), market discipline appears to be weak, and there is compelling evidence that many retirement plan providers are operating inefficiently (Financial System Inquiry 2014, Chapter 2). Minifie et al. (2015), for example, estimated that the $1,000 (AUD) paid by the average Australian plan member in administrative and investment fees each year could be reduced by around one quarter if enough competitive pressure was applied to providers. In response, the regulators developed a dashboard to encourage people to compare – across a standardized format and set of items – different retirement savings plans (see Section 2). The concept of the dashboard is similar to the Summary Prospectus for mutual funds required by the U.S. Securities and Exchange Commission (SEC 2007) and the Key Investor Information Disclosure (KIID) document required in the EU (European Commission 2012). All three of these standardized formats mandate summary information about risks, fees and performance.

In our experiment we simulate this choice process by presenting participants with two hypothetical plans that change across rounds in systematic ways. At the start of a treatment, one plan clearly dominates. Across rounds, however, the characteristics of the plans – principally fees and returns - change in such a way that there is an optimal point at which to *switch* from one plan to the other. Participants should stick with the new plan after making the switch.

Our set-up allows us to address several questions of theoretical and applied significance. To start, we ask which aspects of the prescribed dashboard consumers find easy (or difficult) to understand, and why. Do they appear to rely on the right kind of information to make the right kind of choices? Going deeper, we are able to identify whether consumers switch between plans once (as they should) or more than once, whether they switch at or near the best time, what information they use to choose a plan, and importantly, how much it costs them – in terms of the impact on their final account balance – if they switch and choose sub-optimally. By design, our experiment tests the relative power of high fees and low returns to instigate a plan switch. Drawing on our results from the initial four treatments, we then go beyond the prescribed dashboard and explore the same set of questions for a simplified template in three additional treatments.

Loewenstein et al. (2014) suggest that there is likely to be a widespread belief that the benefit of providing standardized information about alternative products is obvious. But a wealth of prior research shows that consumers often find such choices difficult and do not use prescribed information in optimal ways (Navarro-Martinez et al. 2011; Salisbury 2014; Bateman et al. 2016a). Our novel contribution to this literature is the detailed and systematic comparison of the influence of a large set of retirement plan characteristics in a standardized format, until recently rarely considered within the same overall product disclosure context. Numerous studies have investigated presentation format for risk, fees and returns individually (see below), and several have compared simplified against comprehensive disclosure (e.g., Kozup et al. 2008; Beshears et al. 2011; Walther 2015); yet few have jointly evaluated the multiple elements of a standardized format.

Unlike many studies that focus on the effect of different risk formats (e.g., Kaufmann et al. 2013; Bateman et al. 2016b), we keep risk information constant across plans. This allows us to focus directly on the impact of changing fees and returns information while controlling for risk. Performance differences in each treatment are driven by either fees or investment returns, enabling us to get a clear idea of the impact of each on sub-optimal switching. This novel feature of our approach means that we are able to identify which of the two dynamic signals – fees and returns – consumers are best able to track and respond to. Khorana et al. (2008) show that investment fund fees are generally lower in countries where investors are more protected by regulation, while Grinblatt et al. (2015) find that more intelligent consumers minimize

mutual fund fees. Other studies of disclosures, however, suggest that fund-related fee information is often overlooked or misunderstood (e.g., Barber et al. 2005; Choi et al., 2010; Beshears et al. 2011; see also Venti 2011). We also test the same plan fee differentials in two formats (nominal and annual percentage) to get a more precise measure of whether they are understood and indeed minimized by consumers.

Past studies suggest an opposite impact of returns, finding historical returns information to be *over*-emphasised relative to its predictive value (Sirri and Tufano 1998; Del Guercio and Tkac 2002). Investors accept more risk when shown longer term (rather than short term) returns and excessively extrapolate runs of positive returns (Benartzi and Thaler 1999; Benartzi 2001; Choi et al. 2010). Our approach allows us to tease apart the influence of short-term (1 year) and longer term (10 year) historical return information on plan choice. We are also able to manipulate – still within the same overall dashboard context – the relative volatility of returns information. This is important because it sheds light on whether consumers' ability to track (and trust) returns depends on discerning the 'signal' from the 'noise' in a high-volatility situation, or is affected by a general suspicion about the predictive value of returns (suspicion possibly generated by well-meaning unconditional statements such as "past performance is not necessarily an indicatory of future returns"). For instance, a failure to switch on the basis of returns in a low-volatility situation – where the signal should be easier to discern – is indicative of the latter, suspicion-based, interpretation.

The dashboard context also permits displaying returns information in different formats. Building on prior literature comparing graphs and alpha-numeric displays (e.g., Jarvenpaa 1990; de Goeij et al. 2014), we compared returns presented in graphs (as prescribed by regulation) with tables containing the same information. Some research suggests that graphical displays facilitate understanding and lead to better investment choice (e.g. Kaufmann et al. 2013; Goldstein et al. 2008) – but again this is often related to *risk* communication. The influence of graphical versus tabular representations of returns information on choice is less clear. Graphs can "reduce cognitive overhead by shifting some of the information acquisition burden to our visual perception system freeing cognitive resources for other steps in the problem solving task" (Lohse 1997, p. 298). But the advantages of presenting information in graphs depends on whether the specific format is fit for purpose (Vessey 1991). In our set-up, we ask whether the graphical representation of returns in this dashboard is fit for purpose and enables better plan choices.

To preview the results of the initial treatments, we find that nominal fees are a more effective switch trigger than returns. Plan members are able to track nominal, up-front fee information well and typically switch plans near the optimal point when fees are the 'signal' to be monitored. By contrast, return differentials appear more difficult to track, and consumers seem to treat returns information with

scepticism – not switching when they should. Additionally, we also find that the graphs of returns tend to confuse people. In light of these findings, our final treatments compared versions of a highly-simplified dashboard – one that only presented the information that earlier treatments suggested consumers could understand and use optimally. The key finding from these treatments was that consumers responded more promptly and consistently to returns signals, reducing the wealth losses caused by poor choices by up to one third, compared with when the 'full' (prescribed) dashboard was used. The implication of these findings for development, testing and delivery of product disclosures is considered in the discussion.

2. Context

When a retirement savings system operates through automatic enrolment into defined contribution (DC) plans, default settings are very influential. In Australia, where participation in retirement savings plans is automatic and mandatory for most employees fewer than one third of plan members opt out of key defaults (Butt et al. 2015; Minifie et al. 2015). Since 2014, members who do not choose their own plans or investment strategies must be defaulted into a plan that is a registered "MySuper" retirement savings product. The MySuper products are simplified and (purportedly) low cost DC retirement savings plans that conform to regulations on investment strategy, service provision and fees. The dashboard we study here was developed to allow potential members or employers (deciding on defaults for their employees) to compare MySuper products easily. Regulators and industry agreed on a common format for the dashboard, consisting of information about returns, risk and fees (Treasury 2011, Commonwealth of Australia 2013). By law, the product dashboard must be placed prominently on the website of each pension provider offering a MySuper product and the government has plans to host all MySuper dashboards on a single website.[6]

The MySuper product dashboard must display a return target, realized returns, a comparison between the return target and the realized returns, the level of investment risk and a statement of fees and other costs, as follows: [7]

[6] The product dashboard was a response to concerns about high fees and lack of competition in Australia's private pension (superannuation) system (Cooper 2009). The concept originated with the Super System Review (Cooper 2010) and the specific content and design of the dashboard was developed by the regulators (the Australian Prudential Regulation Authority – APRA, and the Australian Securities and Investment Commission – ASIC), in close consultation with the pension industry and other stakeholders.

[7] The Corporations Act and Regulations and APRA Reporting Standards set out the precise presentation format for these measures. Specifically Section 1017AB of the Corporations Act, the Corporations Regulations 2001 as amended by the Superannuation Legislation Amendment (MySuper Measures) Regulations 2013 (Commonwealth of Australia 2013) and APRA Reporting Standards SRS 700.0 Product Dashboard (APRA 2015).

- Return target: calculated as the mean yearly estimate of the percentage rate of (net) return above CPI growth over 10 years.
- Return: calculated as the net return for each of the past 10 financial years by subtracting administration and advice fees, costs and taxes from the net investment return.
- Comparison between the return target and returns: shown on a graph that must include the returns for 10 previous financial years (presented as a percentage rate of return and shown on the graph as a column), and the moving average return target and moving average return (both shown as lines).
- Level of investment risk: presented using the standard risk-measure format, where the investment risk is shown as the anticipated number of negative returns for the product over 20 years and is accompanied by a risk description that ranges from very low to very high (FSC and ASFA 2011).
- Fees and other costs: calculated as the dollar amount of fees and other costs for an account balance of $50,000.[8]

While not mandatory, the regulator recommended that the dashboard include "warnings" about past returns and fees and other costs not being necessarily the same in future years. The dashboard may also include features such as links, roll-over mouse clicks or similar tools, but cannot include extra information. As a way of facilitating compliance with these requirements, the regulator (ASIC) developed an 'example product dashboard' for pension funds to follow (see Appendix A).[9,10] The ASIC example dashboard (that we tested) warns consumers in two places, namely: i) the statement "Future returns cannot be guaranteed. This is a prediction." is shown in the same box as the return target, and ii) the returns graph carries the warning that "[p]ast performance is not necessarily an indicatory of future returns". By contrast, the 10 year average net of fees return is reported at the top of the dashboard without any adjacent explicit warning, and fees are reported without any hint they could change in the future.

[8] The precise method of calculation is set out in the Corporations Regulations and the relevant APRA reporting standards (Commonwealth of Australia 2013, ASIC 2014, APRA 2015). The prescribed format is slightly different for a lifecycle MySuper product.

[9] Examples of actual MySuper dashboards for two of Australia's largest pension funds can be found at https://www.australiansuper.com/~/media/Files/MySuper%20dashboard/FS%20ProductDashboard.ashx and https://www.unisuper.com.au/mysuper/mysuper-dashboard.

[10] The Australian government is continuing to develop the 'product dashboard' concept. In late 2015, the Australian Treasury invited feedback on a proposal to enhance the MySuper product dashboard with a comparative fee measure (Australian Government 2015), while amendments to the Corporations Act and Regulations are in progress to extend the product dashboard to choice products - see http://www.treasury.gov.au/ConsultationsandReviews/Consultations/2015/Improved-Superannuation-Transparency and ASIC (2015).

The regulator commissioned consumer testing of various aspects of the dashboard; a research firm conducted eight focus groups (consisting of 54 people in total) and three in-depth interviews. The researchers asked consumers about their reactions to the product dashboard (what they liked/disliked, their understanding of the key information and their attitudes towards the look and feel/presentation of the information). However, the consumer research did not explore how people actually used the prescribed information – and whether they used the information in expected ways (see Bateman et al. 2016a). Even though the participants found i) the format dated, ii) the proposed returns graph comprising lines overlaid on a bar chart too complex, iii) the references to "return target" and "current return target" confusing, and iv) risk difficult to understand (ASIC 2013), few of the identified concerns were addressed.

This method for testing the dashboard disclosure is standard internationally. While it represents an improvement on the previous subjective views of regulators as to what may help consumers, the focus of testing is comprehension rather than whether the disclosure assists decision-making. Bateman et al. (2016a) showed for a relatively simplified product disclosure template that the prescribed information items are not processed by most people in the intended way, and the well-intentioned use of a graph distracted the focus of most subjects away from the risk-return trade-off that they arguably should have paid attention to. This suggests that a better approach to disclosure testing would be to test real decisions using randomized controlled trials and/or designing experiments to capture real-life decisions (Gillis 2015).

3. Theory and experimental design

We use a systematic and incentive-compatible approach to identify how individuals actually use performance information to select a MySuper retirement plan. (We do not deal with the prior question of whether people will direct their attention to the plan dashboard and use it for decisions.) In doing so, we run seven separate treatments involving over 1,800 experimental survey participants (see Table 1) to examine how specific features of the dashboard influence plan choice. The surveys were fielded between July 2014 and October 2015.

Participants in all treatments completed a sequence of 20 choices, each between one of two artificial but typical retirement plans. Information about each plan was presented side-by-side on the screen, thereby simulating (but somewhat simplifying) the regulator's suggestion that consumers do so when comparing competing plans. Figure 1 provides a screenshot from Treatment 2 (T2).

Content-wise, we designed the experiment to test the consensus of past studies that people chase returns and overlook fee differences, but without the complications of communicating investment risk (Beshears et al. 2011; Choi et al. 2010; Wilcox 2003). Each of the elements prescribed by the regulator are shown for each plan in each choice set. In all treatments we varied the underlying fees and returns between plans, but not target returns or investment risk. In other words, the strategic asset allocation of the plans was the same but they exhibited performance differences over the 20 choices because of increasing or decreasing expenses (fees) or skill (returns). Varying only realized net returns and fees meant that the 1 year and 10 year average net returns and fee amounts changed between choice sets, while the return target and investment risk information did not. Appendix C shows screenshots of the entire Treatment 1 (T1) survey, live links to all treatments, and screenshots of the variations in the dashboard used in later treatments.

Fee and return variation

We calibrated the fee and returns information in the experiment to the most common (default) MySuper investment product - a Strategic Asset Allocation (SAA) fund, matching the average mix of assets in an SAA MySuper plan at 70% growth and 30% defensive (Chant et al. 2014, Table 2). We computed gross returns to the plan investments by bootstrapping historical asset class index returns and then applying portfolio weights that mimic the allocation of a typical SAA default plan. Appendix C gives a detailed description of the fee and return computations for each treatment.

Poor performance in managed investments can arise from high fees and expenses, and from poor skills in security selection and trading. We tested both these possibilities separately. In T1 and T5, differences in plan performance originated in relatively high fees and expenses, not in gross investment returns. We implemented this by setting the base fees for the benchmark plan (XYZ) at the average MySuper fee on a $50K account balance of 1.06% or $530 p.a., and varying the fee in the alternative plan from either a high ($800 p.a.) or low ($270 p.a.) starting point, thus approximating observed variation in MySuper SAA default fees (Chant et al. 2014, Table 5). In T2-4, T6 and T7, differences in gross investment returns or manager skill (not fees) are what drives the differences in performance between the benchmark and alternative plans. In these treatments we maintain fees for both the benchmark and alternative plans at 1.06% of a $50K balance with a small random adjustment at each choice set. But to mimic poor or skilful security selection and trading, we penalize or boost gross returns for the alternative plan by an amount equal to the penalty (bonus) applied to plan fees in T1 and T5. The dollar value of the differences between the constant and alternative plans are thus the same in all treatments, but they show up either in fees (and therefore also net returns) (T1 and T5) or only in net returns (T2-4, T6 and T7).

We introduced variation in the volatility of returns by changing the relative allocation to growth and defensive assets. In Treatments T1-3 and T5-6 we mimicked the allocation of a typical SAA fund by including a weighted mix of growth and defensive assets. This gave us our high volatility treatments. In Treatments T4 and T7 only defensive assets were included, thus yielding a lower target return and low volatility realized returns. Figure 2 shows a screenshot from Treatment 4, and Appendix C, Table C1 reports the asset allocations for the high volatility and low volatility treatments.

The other key manipulation was the nature of the changes in fees and returns of one plan relative to the other. In each treatment there were approximately equal numbers of participants allocated to an "increasing" and a "decreasing" condition. We define i) the "increasing" condition as the case where the returns to the alternative plan (HIJ) are increasing relative to the returns to the constant plan (XYZ) over the 20 choice sets, and ii) the "decreasing" condition as the case where the alternative plan (ABC) returns are decreasing relative to the returns to the constant plan (XYZ). We examine both of these patterns to test for potential asymmetric participant responses to changes in relative performance due to rising versus falling returns. Asymmetric responses of investors to mutual fund performance relatives have been well documented in aggregated studies (e.g., Sirri and Tufano 1998), showing up as a higher and more rapid flow of funds to out-performing managers compared with a slower movement of funds away from poor performers.

Format variation

Treatments 1-4 aimed to mirror the appearance of the ASIC prescribed dashboard as closely as possible. However treatments 3 and 4 varied the prescribed dashboard slightly in some conditions by displaying returns information in tabular rather than graphical form. (See Figure 2 for an example of the table.) We implemented this change to explore the consumer testing finding that participants are confused by the over-laid lines on the graph (ASIC 2013) in contrast to findings that graphs improve comprehension (Vessey 1991; de Goeij et al. 2014).

We also introduced a 'simplified' dashboard in Treatments 5-7 which departed from the ASIC prescriptions by presenting the relevant information in what we expected would be a more salient manner. Figure 3 shows a screenshot of the simplified dashboard. Specifically, we stripped out the graphical/tabular presentation of returns information and used a common percentage scale to communicate the 1 year and 10 year average net returns as well as the fee information. That is, rather than providing fees in dollar amounts they were described as a percentage of the current balance. The intuition behind this change comes from studies demonstrating scale compatibility effects: information presented

on the same scale is more readily integrated and understood than when different metrics are used (Harries and Harvey 2000).

The simplified dashboard also used a more direct statement of the level of investment risk. Rather than stating the number of possible negative returns in a 20 year period, we simply stated the risk of a negative return in any *given* year. We expected that this change would mitigate erroneous 'gamblers-fallacy'-like reasoning, that can be precipitated by considering runs of returns within a specified time-window (e.g., Ayton and Fischer 2004). Note that this change in the investment risk description was made for both plans considered in treatments 5 - 7. In other words, we tested this simplification with comprehension questions about the dashboard, not in the choice task.

As summarized in Table 2, this systematic comparison of different formats (graphical, tabular, simplified), dynamics (increasing, decreasing), information (fees, returns) and volatility (low, high) provides comprehensive insights into how these different features affect understanding and choice. In addition, we tested whether the dashboard was used differently by people with different education, experience or financial literacy.

We implemented the seven treatments on seven samples (of between 250 and 286 individuals) from the *Pureprofile* online panel of over 600,000 Australians. All participants were 18 or over and had to be enrolled into a retirement plan. Each treatment sample also had a 50:50 split gender-wise and there were specific age quotas in place (one third of subjects were aged 18-34, 35-49 and 50-64, respectively). The age-group members were then assigned to either the increasing or decreasing condition. In each treatment, participants first made 20 choices between two retirement plans using the prescribed dashboard information. They then answered questions related to i) their comprehension of the information presented in the dashboard, ii) financial literacy and numeracy, iii) pension system knowledge, and iv) demographics.

Participants were recruited by email invitation from the panel provider and were paid around $4 for completing the survey as well as a bonus based randomly on i) average return to plans selected in the choice task, applied to a $3 account balance, ii) proportion of correct answers to comprehension questions on the dashboard, or iii) proportion of correct answers to financial literacy, numeracy and pension system knowledge questions. We informed participants they would receive a bonus based on their performance in one of those sections, but did not tell them which section would determine their payment.[11] The average

[11] Appendix B shows a screenshot of the incentive information page. In T1, 148 of the 286 total participants were not offered an incentive. While there was no substantial difference, the quality of answers (lower error rate, higher median/mean in percentage of correct answers for financial literary questions) was somewhat higher in the

bonus payment was $2.18 with a standard deviation of $1.10. The median participant took under 20 minutes to complete the survey. The sample demographics and summary of the 1,818 participants Treatments T1-7 are summarized in Appendix D.

4. Results and Discussion

We analyze results with two goals in mind. First, we evaluate comprehension - which parts of the disclosure people used or found engaging and which parts were well understood.[12] Second, we evaluate the quality of the choices they made by comparing participants' 20 rounds of plan choices with optimal, wealth maximizing choice sequences. This also allows us to calculate losses, rather than record the use of heuristics (Walther 2015)[13] or review participants' comments (CFPB 2012).

Did participants use fee and return information to compare plans?

To find the best plans, participants in the experiment had to notice differences in fees (T1 and T5) or in returns (T2-4, T6-7). However the disclosure formats obscured some items and enhanced others. Results show that the framing of short-term return and fee information strongly influenced the way plan members used it.

A majority (58%) of participants who saw the full dashboard chose the *10 year average (net of fees) return* information as the most useful comparator between plans (Table 2, Panel A). A smaller group (21%) ranked the *fee* information as most useful. Even in the treatment where the performance differences came from fees and charges (T1), only 35% ranked fees as the most useful item. The relative popularity of the *10 year average return* is not surprising. This information is easy to see (at the top left of the dashboard), is shown as an annualized percentage, and has no adjacent warning against using returns to predict future performance. The nominal fee amount is also clearly expressed in dollars at the bottom right of the screen. It carries no warning of future fee changes or that the dollar amount of fees is non-linearly related to account balance. The *fee* and *10 year return* are salient, and participants might have inferred that they are more reliable than the information items that are located next to warnings.[14]

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incentivized condition, and so we incentivized all later treatments [T2-7]. The differences between the incentivized and non-incentivized groups that had been evident in financial literacy scores in T1 disappeared in later treatments.

[12] Our approach is similar to the EU testing of the UCITS KIID (European Commission 2009) and the Consumer Financial Protection Bureau's (CFPB) Mortgage Disclosure Project (CFPB 2012).

[13] Two other differences between our study and Walther (2015), apart from the specific disclosures being studied, is that he tests the KIID on a sample of students more educated than the general population of investors and does not offer a performance-related incentive.

[14] The target return is also reported at the top of the dashboard but carries a disclaimer that it is only a "target" not a "prediction". The target return and standard risk measure are the only forward-looking information items on the

Even though long term returns were rated as very useful, short term returns were obscured by the prescribed format. If participants want to see the *1 year return*, they have to look at the bars on the past performance graph. Only a small proportion of participants in the full dashboard treatments (14%-20%) included the returns table or graph in the set of items they used most often to distinguish between the plans (Table 2, Panel A). Participants who did look at the graph were also likely to notice the adjacent warning that "[p]ast performance is not necessarily an indication of future returns". Even though the history of the *10 year average return* is also shown on the graph, it is possible that participants might not connect the warning near the graph with the *10 year average return* percentage separately reported at the top of the dashboard. Additionally, if participants view the returns distributions of the plans as constant through time, and assume that fees will not change in the future, the *10 year average return* is objectively a better predictor of the future investment returns of the plan than the most recent *1 year return*.[15] Finally, short-term returns did not become much more noticeable if they were reported in a table.

In both the graph and table conditions, participants rated the historical returns information as relatively unusable. Fewer than 11% of participants ranked the past performance graph or table as the most useful item (Table 2, Panel A). Additionally, the format of the graph or table did not give much help to people who were trying to compare plans. Graphs depict spatial relationships – facilitating comparisons between variables or trends - whereas tables facilitate the extraction of discrete data values or point estimates (Vessey 1991). The visual salience of graphed information depends on physical differences between images (Jarvenpaa 1990). On one hand, the color and central position of the graph on the dashboard is likely to attract participants' attention. But on the other hand, the similarity between the graphs of the two plans and the complexity of the combined bars and lines makes it hard to see differences. Furthermore, neither the graph nor the table facilitated direct comparison between the two plans. To ascertain which plan had the strongest performance history, participants needed to shift attention and eye gaze from one half of the screen to other in order to sequentially compare each attribute in the table or graph. This sequential comparison of attributes could place undue load on working memory thereby increasing the difficulty of determining the superior plan on any given trial. (Perhaps a more useful approach would be to incorporate information about both plans into the same graph or table.)

Simplifying the dashboard enhanced returns but obscured fees. A higher proportion of participants in the simplified dashboard treatments (67% cf. 58%) rated the *10 year average returns* information as the most

dashboard, but we held these constant between the two plans throughout the tasks. Our approach is consistent with industry practice, since these items depend on the strategic asset allocation of the MySuper investment and this is rarely changed by the provider.

[15] We note that we do not know how participants think about returns distributions or control what outside information about plan investments they might bring to their choices.

useful information item (Table 2, Panel B). A much smaller proportion (12% cf. 21%) rated *fees* as most useful. In addition, the proportion of participants who reported using the *10 year average* and *1 year returns* information rose to 76% (cf. 66%) and 29% (cf. 14-20%) while the use of the fee information fell from 59% to 53%. Of more concern was the fact that the proportion of participants using the *fee* information in the simplified dashboard fee treatment (T5) was nearly 20 percentage points lower than for the full dashboard version (T1). It could be that changing the fee information to a percentage of account balance (instead of showing a dollar amount), and listing returns information directly above the fee percentage, made fees less noticeable (Wilcox 2003; Barber et al. 2005). Only the decimal place of the fee percentage changed between choice rounds, probably making differences between plans harder to notice.

These results give a nuanced interpretation of how people might use past performance information. While we frequently saw participants comparing plans by *10 year average return*s, the majority did not use the *1 year return* shown in the past performance graph (or table). This stands in contrast to the EU (2009) study of the KIID, which found that people paid most attention to a bar chart and table comparing an investment fund's recent returns to a benchmark. Similarly, aggregate empirical studies of mutual funds find that investors choose funds with strong recent performance (Sirri and Tufano 1998; Del Guercio et al. 2002). The difference between our results and past studies' is probably related to the relative clarity of short and long term returns information in the MySuper dashboard, as foreshadowed in the regulator's consumer testing (ASIC 2013).[16] It could also be related to the placement of warnings in the prescribed dashboard – next to the graph but away from the *10 year average return*. Even though the *1 year return* is much easier to see in the simplified dashboard, it still carries a warning against inferring future returns from past performance, while the *10 year average return* does not.

The relatively simple presentation format of fees and charges in the full MySuper dashboard can also explain why participants in our study rank fee information high in usefulness while participants in the EU study ranked it relatively low. The KIID separately reports investment fund entry and exit charges, ongoing expense ratios and performance fees. Fee information is the section in the KIID that was hardest for test subjects to understand (European Commission 2009). In addition, other studies (e.g., Wilcox 2003; Barber et al. 2005) have shown that mutual fund investors pay more attention to nominal up-front fees than percentage expense ratios. Our finding that participants gave more weight to fees when expressed as nominal dollars in the full dashboard, rather than comparable percentages in the simplified

[16] Our results are also consistent with the experimental studies of Wilcox (2003) and evaluation of aggregate revealed preference data by Benartzi (2001).

dashboard, also supports this interpretation. However, our results go further by demonstrating that this is a pure framing effect.

Did participants understand disclosure information?

Fees, expressed in dollars relative to a $50K account balance, were the best understood item on the dashboard. Table 3 reports responses to comprehension questions about the dashboard and summarizes participants' scores on standard financial literacy and numeracy tests collected later in the survey. (Appendix E lists all the comprehension and financial literacy questions.) Communicating fees as a nominal dollar value makes them "salient, in-your-face expenses" (Barber et al. 2005, p. 2097) that investors will minimize.

Around half of participants gave correct answers to questions about returns, but risk information was very poorly understood. The full dashboard shows risk as an estimate of the number of years in 20 that the investment is predicted to earn negative returns even though the prediction is calculated as an annual (i.i.d) probability. In other words, the risk of negative returns stated as "4 years in every 20" is actually equal to a 20% probability of negative returns each year. Less than one fifth of participants answered questions about risk comprehension correctly, confirming results from Bateman et al. (2016b) that this format for communicating investment risk is inferior to simple alternatives, such as return ranges.

Comprehension of some plan features improved markedly when we simplified the dashboard (Table 3, Panel B). The percentage of participants who understood that returns were reported *net of fees* increased by 18 points over the percentage in the full dashboard treatments. This understanding improvement partly explains why people focused more on returns and less on fees *per se* in the simplified conditions. Simplified risk information also induced a modest improvement in the rate of correct responses to risk comprehension (2 and 8 percentage point improvements). Still, less than one quarter of participants answered risk comprehension questions correctly.

In summary, many plan members appear not to understand much of the dashboard information. This is probably due both to weak financial literacy among plan members[17], and the complexity of the disclosure

[17] Participants answered financial literacy and numeracy questions correctly at rates similar to earlier surveys of the Australian population and of other developed countries (Agnew et al. 2013). Consistent with general financial literacy studies, we found that participants gave the most wrong answers to questions related to investment risk and diversification, and probabilities. In terms of specific plan knowledge, we found that most participants understood correctly that contributions to retirement savings plans are compulsory, tax preferred, and inaccessible until the regulated age, but fewer knew the details of contribution rates and actual access ages that are critical to life cycle planning.

itself. In the next section we examine how this limited understanding of the features of the dashboard plays out when it comes to choosing the optimal plan on each trial of the experiment.

Do people use the dashboard to make the right choices?

Participants could maximize retirement savings (and experiment incentive payments) by choosing the plan offering the highest net of fees returns at each point in the choice task. We structured the sequences of 20 plan comparisons so that there was one optimal point to switch plans, in most cases at the 11th or 12th choice set in the sequence. In this section we evaluate under what conditions fee and returns disclosures help participants switch to the best plan at the right time.

a) Do they switch once?

Participants that used disclosures effectively switched once at the ideal point and then stayed with the plan they switched to for the remainder of the tasks. There were no advantages to switching back and forth between the plans.

There are dramatic variations across the conditions of the experiment in the proportions of participants who made a single switch. (See Table 4 Panel A for the percentage of participants in each condition who made one switch.) For the full dashboard treatments (T1-T4), the rates of single switching were above 75% for the fee condition (T1), but fell to around 21% when differences between plans showed up in returns rather than fees. The rate of single switches improved when low volatility returns were shown (T4), but was still less than 40%. By contrast, participants were more decisive in their choices in the simplified dashboard treatments (T5-7) where around two thirds of respondents made one switch, regardless of whether differences between plans showed up in fees or returns.

The simplified dashboard helped more numerate participants to make a single switch. Table 4 Panel B reports marginal effects from logit models' estimations of the probability that a participant made a single switch. The explanatory variables include demographics, numeracy and financial literacy measures collected in the remainder of the survey, as well as an indicator for the decreasing conditions. We estimate that participants who answered correctly an additional numeracy question were between 6 and 11 percentage points more likely to make single switches in the simplified dashboard (T5-7) than in the full dashboard fee treatment (T1). However, better numeracy did not seem to help in the full dashboard returns treatments (T2-4). This suggests that this format concealed differences in plan returns so effectively that even the more numerate people were confused.

Studies of the relation between cognitive ability, financial literacy and investment choices have reached apparently conflicted conclusions. Grinblatt et al. (2015) find that high IQ and financially literate

investors minimize fees, and Choi et al. (2010) find that more financially literate investors avoid higher mutual fund fees. However, Wilcox (2003) and Müller and Weber (2010) show that while financially savvy investors tend to minimize up-front fees they do not minimize more obscure, costly expense ratios. Our results confirm the ability of numerate participants to minimize the nominal, up-front fees in the full dashboard fee treatment. Simplifying the dashboard information into consistent annual percentage measures enabled numerate people to discern returns differences but fees become less instrumental.

Other demographics and financial capability measures did not significantly explain the probability of a single switch, but one other framing effect is worth noting. The participants who were allocated to the "decreasing" conditions in T2-4 were around 24 percentage points less likely to make a single switch than those in the "increasing" conditions. In other words, participants had more difficulty evaluating changing performance due to declining returns than increasing returns. The indecision we observe in decreasing conditions is similar to the tendency of mutual fund investors to withdraw from poorly performing funds less readily than they move to highly performing funds (Sirri and Tufano 1998).

b) Does fee or return information enable participants to switch at the right time?

Participants switched closest to the optimal points in the fee treatments, but delayed switching well past the optimal point in the returns conditions. When combined with switching back and forth, this delay reduced final account balances. Then again, no single piece of dashboard information completely explains switching patterns, which points to participants using several information items jointly to make their decisions (Wilcox 2003; de Goeij et al. 2014).

The patterns of switches are reported in Table 5, with Panel A showing results for the full dashboard treatments and Panel B for the simplified dashboard treatments. Table 5 reports the choice set at which participants made their first and their final switches, and also separately shows the choice patterns of single switch participants. The dark gray shaded cells are the optimal switching point in each treatment/ condition and the pale gray shaded cells are the choice sets where the *10 year average return* information was either equal between the funds or unequivocally higher (lower) for the alternative fund. In other words, if participants were only comparing the *10 year average return* they would switch at the first pale gray shaded cell. The most popular switching point is shown in bold.

The majority of participants in the fee treatments chose to switch plans at, or immediately after, the optimal point. People could compare and minimize the nominal dollar fee despite small random fees variations between choice sets. However, most participants delayed switching in the returns treatments. In the high volatility full dashboard returns treatments (T2-3), for instance, the majority of switches were delayed by 3-6 sets after the optimal point.

People might delay because of the volatility of returns. Random variation rather than skill could account for short runs of good or bad returns, so participants can naturally treat emerging performance differences with some scepticism. If the returns volatility is low, however, the signal to noise ratio is higher, justifying an earlier switch. Despite a very large reduction in volatility in T4, switches were still delayed by around 5 sets, with participants apparently waiting until 10 year average net returns indicated that one plan was performing better than the other, thus clustering switches around choice 15. Participants approached low volatility returns (equivalent to outcomes from a low-risk fixed interest and money market fund) with almost the same degree of doubt as they applied to returns from a fund with a 70% exposure to growth assets. We infer that plan members are not just cautious of noisy signals, but are generally suspicious of short-term returns.

Plan choices are consistent with comprehension results reported in Tables 2 and 3. "Simplifying" the fee information by expressing it as a percentage of (a $50K) account balance rather than in absolute dollars made the fees less salient (Barber et al. 2005; Wilcox 2003). Results from the simplified dashboard fee treatment (T5) (Table 5, Panel B) show more clustering of switches around the 15th choice set, again pointing to the importance of the 10 year average return over the fee. Participants paid less attention to the fee information as it became (presumably) harder to evaluate. Then again, the fact that most switches in T2-3 and T6 occur before the cells where the 10 year average net return show a clearly dominant fund suggests that participants are not only relying on that information when making their decisions, but also considering the 1 year returns.

c) What information explains choice of plan?

To investigate the way that participants use dashboard information items we estimate panel logit models of switching patterns. Table 6 reports average marginal effects from models of first switches (Panel A) and final switches (Panel B) for each of the treatments and conditions. The dependent variable in each model equals one when the participant chooses XYZ (the left hand side plan) and zero when the participant chooses the alternative plan.[18] We define three information variables: *Δ 1 yr ret* is the difference between 1 year net return to plan XYZ (on the left hand side of the dashboard) and the 1 year net return to plan ABC or HIJ (on the right hand side). Similar definitions apply to the differences in the 10 year average net return (*Δ 10 yr ret*) and the difference in fees (*Δ Fee*). It follows that we expect

[18] For increasing conditions, for example, if a participant first switches from XYZ to HIJ at the 4th choice set, the dependent variable for first switch will be a vector where the first three elements are ones and the remaining 17 are zeros. If they then switch back and forth, finally choosing HIJ consistently from 15th choice set, the dependent variable for final switch will be a vector where the first 14 elements are ones and the remaining 6 are zeros. For decreasing conditions, the participants begin in the alternative plan ABC and switch to XYZ, generating vectors of zeros followed by ones. First and final switch vectors are identical for participants making single switches.

positive differences in returns (higher values of *Δ 1 yr ret* and *Δ 10 yr ret*) to increase the probability of choosing XYZ and the reverse response for fees. In addition, in T4, half of the participants were shown historical returns information in a table and half in a graph, so we include a binary indicator for the graph condition (*Graph*), and interact this with the return and fee variables. We also include an indicator variable for participants who switched only once (*Single*) in each model.[19] We omitted *Δ 1 yr ret* and *Δ 10 yr ret* from the models for T1, and we omitted *Δ Fee* from the model for T6 (increasing) because of collinearity.

Models of first switches show that the marginal effects of *Δ Fee* from the T1 models have the expected negative sign: we estimate a 20 percentage point lower probability of choosing XYZ plan for fees $100 p.a. higher than the alternative. However, results from T2-4 show that when similar differences in performance show up in 1 year returns rather than fees, participants tend to overlook them. The marginal effects of *Δ 1 yr ret* are nonsignificant (with one exception at 10% significance). Surprisingly, reducing the volatility of returns in T4 does not change this outcome. By contrast, higher *Δ 10 yr ret* make first switches to XYZ more likely for the decreasing conditions of T2 and T3, and for both conditions in T4. In these cases a 0.5% p.a. higher 10 year average net return, for example, makes first switches to XYZ between 35 and 40 percentage points more likely. These results confirm that 10 year average returns are easier to see and are judged as more reliable by participants (see also Benartzi 2001; Benartzi and Thaler 1999; Choi et al. 2009).

Models of final switches confirm the importance of *Δ Fee* for T1. Returns variables *Δ 1 yr ret* and *Δ 10 yr ret* are significant predictors of final switches in T2-4 (with one exception), but puzzlingly have negative signs in several cases. On closer inspection of the data, we see that final switches frequently occur when the difference in plan performance has shown up in *Δ 1 yr ret,* but has yet to show up in *Δ 10 yr ret,* which can explain the sign differences in several instances.

For both first and final switches, participants also seem to have taken notice of differences in fees in T2-4, even though fee variations were small and randomised. Moreover, participants viewing the graph delay their first (and final) switches longer than participants viewing the table in the increasing condition. This is consistent with the graph making comparisons more difficult in T4 (although the effect is not significant for the decreasing condition).

For the simplified dashboard, *Δ 10 yr ret* is a significant and positive predictor of first and final switches for all but one of the returns conditions. The *Δ 1 yr ret* also influenced choices more than in the full dashboard, and with the expected positive sign. On the other hand, participants used fee information much

[19] Standard errors are clustered by participant.

less, probably because the differences between plan fees were much less noticeable when expressed as a percentage rather than in nominal terms.

Overall, results in Tables 5 and 6 show that plan members interpret fee and returns information in the ways we would expect, preferring low fee, high return funds. However, while large changes in fees prompt people to switch virtually immediately, it takes longer and larger signals in returns to motivate a change. Members take notice of both short term and long term returns, but delay a switch to the better performing plan until they see several years of short-term outperformance. Even when returns volatility is low and returns themselves are persistent, members delay switching. This is evidence that unwillingness to switch in response to returns differences is not only due to a cautious appraisal of noisy signals, but is also related to a general scepticism of short-term returns signals. Members see long term returns as more reliable, a view that is probably reinforced by the placement of warnings on both the full and simplified dashboards.

d) What does it cost to choose wrongly?

Inefficient choice of plan is costly to members. To investigate the costs of choosing the wrong plan, we compute the final account balance after 20 choices for each participant, assuming that they begin with a $50K balance and do not contribute or withdraw any savings. (In the returns conditions, for example, average final account balances are around $155K.) Our account balance calculation include fees and charges. We also compute the final account balance achieved by the optimal choice of plan. We then calculate the average percentage difference between participants' realized balances and the optimum. The last row in each panel of Table 5 reports the average (per participant) percentage of final account balances that was lost due to inefficient switches. We also test for equality of average percentage losses between the full and simplified dashboard conditions.

Two factors significantly affected losses: the source of the outperformance signal and information framing. Average losses are lowest (0.3%) in the full dashboard fee treatments but rise to three or four times these percentages in the full dashboard return treatments (up to 1.3% of final account balance). Rudimentary simplifications to framing made a dramatic difference to losses. Participants viewing the simplified dashboard incurred losses that were around one third less than for the full dashboard conditions, amounting to a difference up to 0.5% of their final account balance. But reframing fee information into annual percentages rather than dollar amounts increased losses by around 0.1%.

Concluding Remarks

Today's consumers are being asked to make more complex financial decisions than ever. The consequences of consumer financial mistakes can be severe at the individual and aggregate level (Campbell 2016). As a result, financial regulators have begun tightening the rules around product disclosures, condensing and simplifying information in an attempt to ease comparisons between competing products. But such short, standardized product disclosures can have unforeseen effects on consumer decisions. For instance, consumers can ignore the information provided or worse still, misuse it and end up with worse financial outcomes.

This study provides a detailed and systematic comparison of the influence of fee and return information on choice of retirement plan. Our experimental results provide three key contributions to advancing understanding about how best to communicate plan information to consumers.

First, we dissect reactions to returns and fees information: For instance, plan members respond fairly immediately to out-performance that shows up in nominal fee differences. However, they do not react quickly to out-performance in 1 year net-of-fees returns, but reserve their judgement until they see several years of short-term out-performance showing up in long-term average returns. We test the possibility that this delay could be related to "volatility aversion", but find that even when the returns volatility is very low, members do not respond as quickly to recent return out-performance as they do to differences in nominal fees. Plan members rate differences in long term average net returns as the most reliable comparison point between plans. It follows that plans that have changed investment strategy in ways that will improve future returns performance can expect that convincing potential members of the advantages of switching will take several years. Potential members are, however, likely to appreciate cost efficiencies much faster.

Second, we show that choosing the right disclosure simplifications is not simple. Regulators wanting to simplify disclosures should find out what information items are used, and how they are used, before they settle on simplifications. Techniques that might be expected to improve comprehension can be ineffective. For example, the performance graph in the full MySuper dashboard was no more effective than a table of numbers, and was largely ignored by participants (probably because it was complicated). By contrast, reducing the information items on the dashboard and presenting them in a way that facilitated integration and comparison enabled better choices in the returns-changing treatments and consequently led to higher account balances.

But standardization goes only part of the way towards making comparison easier. The MySuper dashboard ensures that plans report the same set of information calculated in the same standard way, but does not allow the comparable information of two plans to be presented simultaneously (on the same

page). Although we provided this type of comparison to the participants in our study, such a method of presentation still has limitations. Because the information is presented by "alternatives" rather than by "attributes", it encourages members to collect all the information about one plan and then the other, rather than facilitating direct comparisons. Such "alternative-wise" search and comparison strategies are known to take longer to execute (Payne et al. 1993) and are argued to be more cognitively taxing than "attribute-wise" strategies (Russo and Dosher 1983). Perhaps a "smart" interactive disclosure where members could populate a single table with attribute(s) data from two or three plans at once would emphasize differences and facilitate choice. Recent research examining the communication of risk in portfolio choice highlights the significant potential of such interactive tools (Goldstein et al. 2008).

Future research into these better methods for comparing and contrasting plans could also benefit from information about how consumers use existing comparison sites and on the way consumers have been using the MySuper dashboard since its introduction. These data might also shed light on how consumers view the cost – in terms of the administrative burden – of switching plans, an aspect that was not captured in our experimental environment.

Third, our results support previous views that testing via focus groups and in-depth interviews is insufficient when it comes to informing product design and policy in general (Gillis 2015). Focus groups are usually made up of a very small number of people who voluntarily participate, and one cannot assume that their views and perceptions represent those of the general population. In-depth interviews, even more so than focus groups depend in addition greatly on (and can be easily biased by) the interviewers, who act more as moderators than external parties. Hence, our incentive-compatible experimental testing also reveals the importance of going beyond such methods for drawing conclusions about the comprehension, use and effectiveness of product disclosures.

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Figure 1: Screenshot from Treatment 2

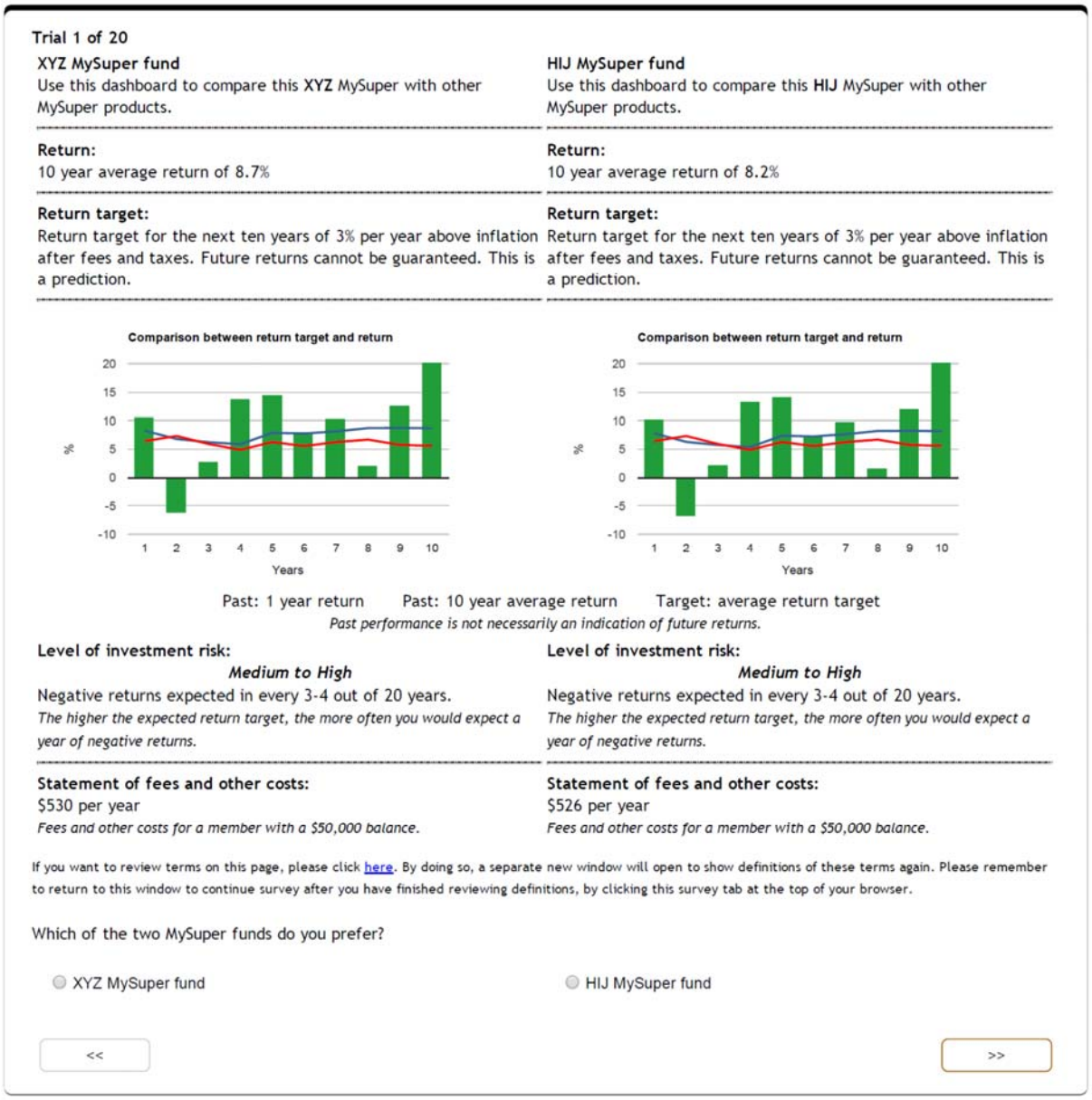
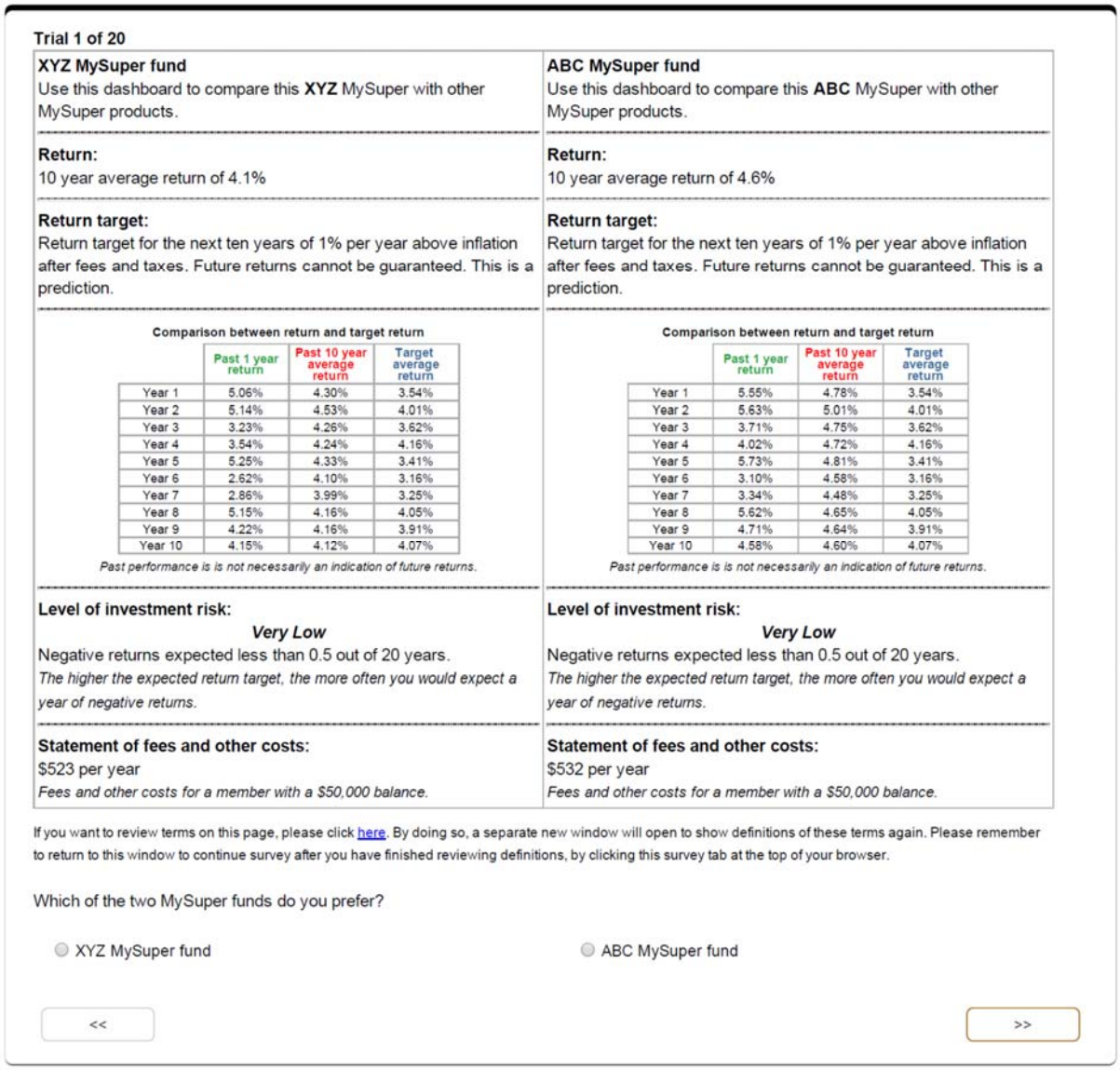


Figure 2: Screenshot from Treatment 4, “table” condition



Trial 1 of 20

XYZ MySuper fund

Use this dashboard to compare this **XYZ** MySuper with other MySuper products.

Return:

10 year average return of 4.1%

Return target:

Return target for the next ten years of 1% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	5.06%	4.30%	3.54%
Year 2	5.14%	4.53%	4.01%
Year 3	3.23%	4.26%	3.62%
Year 4	3.54%	4.24%	4.16%
Year 5	5.25%	4.33%	3.41%
Year 6	2.62%	4.10%	3.16%
Year 7	2.86%	3.99%	3.25%
Year 8	5.15%	4.16%	4.05%
Year 9	4.22%	4.16%	3.91%
Year 10	4.15%	4.12%	4.07%

Past performance is is not necessarily an indication of future returns.

Level of investment risk:

Very Low

Negative returns expected less than 0.5 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$523 per year

Fees and other costs for a member with a $50,000 balance.

ABC MySuper fund

Use this dashboard to compare this **ABC** MySuper with other MySuper products.

Return:

10 year average return of 4.6%

Return target:

Return target for the next ten years of 1% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	5.55%	4.78%	3.54%
Year 2	5.63%	5.01%	4.01%
Year 3	3.71%	4.75%	3.62%
Year 4	4.02%	4.72%	4.16%
Year 5	5.73%	4.81%	3.41%
Year 6	3.10%	4.58%	3.16%
Year 7	3.34%	4.48%	3.25%
Year 8	5.62%	4.65%	4.05%
Year 9	4.71%	4.64%	3.91%
Year 10	4.58%	4.60%	4.07%

Past performance is is not necessarily an indication of future returns.

Level of investment risk:

Very Low

Negative returns expected less than 0.5 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$532 per year

Fees and other costs for a member with a $50,000 balance.

If you want to review terms on this page, please click here. By doing so, a separate new window will open to show definitions of these terms again. Please remember to return to this window to continue survey after you have finished reviewing definitions, by clicking this survey tab at the top of your browser.

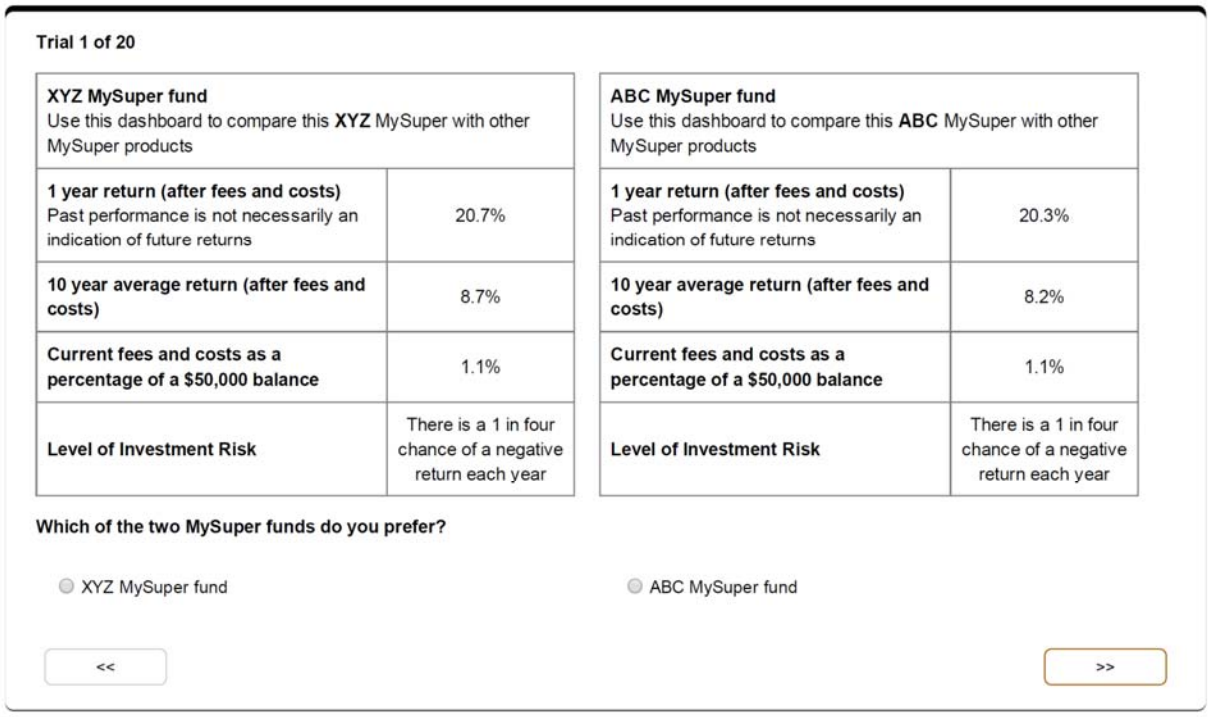
Which of the two MySuper funds do you prefer?

XYZ MySuper fund

ABC MySuper fund

<< >>

Figure 3: Screenshot from Treatment 6, simplified dashboard



Trial 1 of 20

XYZ MySuper fund Use this dashboard to compare this **XYZ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	20.7%
10 year average return (after fees and costs)	8.7%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

ABC MySuper fund Use this dashboard to compare this **ABC** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	20.3%
10 year average return (after fees and costs)	8.2%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

Which of the two MySuper funds do you prefer?

XYZ MySuper fund

ABC MySuper fund

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Table 1: Description of each treatment

Treatment Number (n)	Date	Dashboard Type	Changing Information	Returns Volatility	Returns Display Format
1 (286*)	Jul 2014	Prescribed ('Full')	Fees	High	Graph
2 (274)	Sep 2014	Prescribed ('Full')	Returns	High	Graph
3 (252)	Feb 2015	Prescribed ('Full')	Returns	High	Table
4 (247)	Jun 2015	Prescribed ('Full')	Returns	Low	Graph/Table
5 (251)	Aug 2015	Simplified	Fees	High	N/A
6 (250)	Oct 2015	Simplified	Returns	High	N/A
7 (258)	Oct 2015	Simplified	Returns	Low	N/A

* 138 Incentivized, 148 Non-incentivized – all participants in remaining treatments were incentivized – see text for explanation of incentive implementation.

Notes: *Prescribed ('Full')* identifies treatments that use the MySuper template described in Treasury (2011) and Commonwealth of Australia (2013), return target, returns, a comparison between the return target and the returns, the level of investment risk and a statement of fees and other costs, as explained in the text. *Simplified* identifies the use of radically simplified templates (for details see text). Variation in the volatility of returns was engineered by changing the relative allocation to growth and defensive assets. In treatments T1-3 and T5-6 we mimicked the allocation of a typical Strategic Asset Allocation fund by including a weighted mix of growth and defensive assets, which gave us our high volatility treatments. In treatments T4 and T7 only defensive assets were included, thus yielding a lower target return and low volatility realized returns.

Table 2: Information use reported by participants

Panel A: Full dashboard	**% of responses**	**Diff. in mean (t-stat)**
What is the most useful piece of information? (Choose one)		
10 year average return	57.7	(-4.776)
Return target	8.7	na
Table	10.9	na
Graph	7.8	na
Level of investment risk	3.5	(-5.152)
Fees and costs	21.2	(5.416)
Fee condition (Treatment 1)	35.0	(4.041)
Returns conditions (Treatments 2-4)	16.2	(4.482)
What pieces of information did you use most often? (Choose any that apply)		
10 year average return	66.3	(17.001)
Return target	23.3	na
Table	20.4	na
Graph	13.8	na
Level of investment risk	21.0	(-0.196)
Fees and costs	59.2	(10.155)
Fee condition (Treatment 1)	72.4	(4.739)
Returns conditions (Treatments 2-4)	54.3	(9.950)
Panel B: Simplified dashboard	**% of responses**	
What is the most useful piece of information? (Choose one)		
10 year average return	68.6	
1 year return	10.5	
Level of investment risk	9.2	
Fees and costs	11.6	
Fee condition (Treatment 5)	19.5	
Returns conditions (Treatments 6-7)	7.7	
What pieces of information did you use most often? (Choose any that apply)		
10 year average return	76.4	
1 year return	28.7	
Level of investment risk	21.3	
Fees and costs	35.7	
Fee condition (Treatment 5)	53.0	
Returns conditions (Treatments 6-7)	27.2	

Notes: Column 1 shows percentage of participants reporting use of full dashboard (Panel A) and simplified dashboard (Panel B) information items. Column 2 reports t-statistics for test of equality in means between full and simplified dashboard treatments. Total number of participants in T1-4 is 1059, of which there were 286 in T1 (fee condition with graph); 274 in T2 (returns condition with graph); 252 in T3 (returns conditions with table); 247 in T4 (low volatility returns condition with table or graph). Total number of participants in T5-7 is 759, of which there were 251 in T5 (fee condition); 250 in T6 (low noise returns condition); and 258 in T7 (high noise returns condition). Participants were randomly assigned to either view increases or decreases in fees or returns over the 20 choices.

Table 3: Dashboard comprehension and financial literacy, full dashboard (T1-4)

Panel A: Full dashboard	**% correct answers**						
	Inc.	Dec.	Table	Graph	High vol	Low vol	T1-T4
Relative fees and costs							
Fee treatment	70.7	57.6		64.3			
Return treatments	56.1	52.1	55.2	53.0	56.7	48.6	
							56.8
Relative returns							
Return treatments	49.1	48.2	53.6	43.9	45.1	56.3	48.6
Returns net of fees							43.9
Returns relative to target			72.1	31.5			46.0
Negative returns							47.5
Standard risk measure (5 yrs)							17.0
Standard risk measure (15 yrs)							13.2
Numeracy (3 Qs)							61.6
Financial literacy (3 Qs)							72.6
Superannuation literacy (12 Qs)							58.0
Panel B: Simplified dashboard	**% correct answers**						
	Inc.	Dec.			High vol	Low vol	T5-T7
Relative fees and costs							
Fee treatment	47.3	46.7					
Return treatments	63.8	58.8			59.3	63.2	
							56.5
Relative returns							
Return treatments	76.0	73.3			77.9	71.2	74.6
Returns net of fees							61.7
Simplified risk measure (5 yrs)							19.1
Simplified risk measure (15 yrs)							22.3
Numeracy (3 Qs)							61.2
Financial literacy (3 Qs)							70.3
Superannuation literacy (12 Qs)							56.2

Notes: This table reports percentage of participants correctly answering comprehension questions on full dashboard, numeracy, financial literacy and superannuation literacy. Questions are reproduced in Appendix E. Total number of participants in T1-4 is 1059, of which there were 286 in T1 (fee condition with graph); 274 in T2 (returns condition with graph); 252 in T3 (returns conditions with table); 247 in T4 (low volatility returns condition with table or graph). Total number of participants in T5-7 is 759, of which there were 251 in T5 (fee condition); 250 in T6 (low noise returns condition); and 258 in T7 (high noise returns condition). Participants were randomly assigned to either view increases or decreases in fees or returns over the 20 choices.

Table 4. Rates of single interior switching: counts and logit estimation

	Full dashboard				Simplified dashboard		
	Treatment 1	*Treatment 2*	*Treatment 3*	*Treatment 4*	*Treatment 5*	*Treatment 6*	*Treatment 7*
Panel A: Single switching	Fee	Return (Graph)	Returns (Table)	Returns (Low Vol)	Fee	Returns	Returns (Low Vol)
Single switchers (count)	218	58	89	98	178	177	165
Single switchers (%)	76.2	21.2	35.3	39.7	70.9	70.8	64.0
Panel B: Marginal effects from logit estimations (Dependent variable: single interior switch = 1, 0 otherwise)							
Decreasing condition	0.023	**-0.274**	**-0.244**	**-0.334**	-0.021	0.041	-0.099
	(0.044)	(0.044)	(0.058)	(0.055)	(0.053)	(0.049)	(0.055)
Female	**0.147**	-0.003	0.078	-0.072	0.067	0.062	**0.115**
	(0.051)	(0.047)	(0.064)	(0.065)	(0.058)	(0.053)	(0.057)
Age 40-59 yrs	0.018	0.066	-0.051	0.024	0.068	-0.014	**0.133**
	(0.051)	(0.050)	(0.064)	(0.064)	(0.068)	(0.058)	(0.064)
Age 60+ yrs	0.097	**0.231**	-0.082	0.072	**0.223**	0.135	0.124
	(0.081)	(0.107)	(0.118)	(0.099)	(0.092)	(0.069)	(0.103)
High school graduate	0.097	0.078	0.073	-0.009	-0.014	-0.042	0.070
	(0.070)	(0.055)	(0.088)	(0.076)	(0.067)	(0.059)	(0.074)
College diploma/degree	**-0.102**	-0.002	-0.094	-0.018	0.004	-0.015	-0.077
	(0.050)	(0.050)	(0.058)	(0.064)	(0.058)	(0.053)	(0.061)
Employed	-0.048	-0.033	**0.204**	0.089	0.026	-0.094	-0.115
	(0.063)	(0.090)	(0.091)	(0.108)	(0.081)	(0.082)	(0.081)
Retired	0.055	**-0.189**	**0.509**	0.083	-0.244	-0.168	-0.019
	(0.105)	(0.088)	(0.160)	(0.139)	(0.139)	(0.156)	(0.117)
Married/de facto	-0.019	0.024	-0.047	**0.151**	-0.038	-0.110	-0.005
	(0.058)	(0.067)	(0.084)	(0.075)	(0.065)	(0.065)	(0.070)
Financial decision maker	-0.022	0.049	-0.005	0.033	0.029	-0.055	-0.082
	(0.054)	(0.049)	(0.067)	(0.067)	(0.057)	(0.055)	(0.059)
No dependents	-0.027	-0.021	-0.025	0.101	-0.022	-0.011	**0.138**
	(0.060)	(0.059)	(0.072)	(0.068)	(0.067)	(0.068)	(0.064)
Weekly inc. ($1-$399)	-0.005	0.171	0.176	-0.169	0.057	-0.103	**-0.414**
	(0.098)	(0.132)	(0.142)	(0.170)	(0.161)	(0.153)	(0.118)
Weekly inc. ($400-$999)	-0.045	0.089	0.084	-0.118	-0.044	-0.102	-0.111
	(0.098)	(0.128)	(0.161)	(0.167)	(0.180)	(0.162)	(0.111)
Weekly inc. ($1000+)	0.061	0.082	0.122	-0.192	0.045	0.022	-0.139
	(0.102)	(0.136)	(0.170)	(0.165)	(0.181)	(0.165)	(0.123)
Retirement balance (ln$)	-0.010	-0.019	0.010	0.001	0.005	-0.007	-0.014
	(0.012)	(0.010)	(0.010)	(0.013)	(0.011)	(0.010)	(0.014)
Comprehension	0.023	-0.002	0.024	0.085	-0.014	0.016	0.010
	(0.019)	(0.035)	(0.046)	(0.043)	(0.049)	(0.044)	(0.052)
Financial literacy	**0.097**	0.044	0.008	0.038	0.005	**0.060**	0.051
	(0.025)	(0.037)	(0.042)	(0.048)	(0.034)	(0.028)	(0.043)

Table 4 continued

Marginal effects from logit estimations

	Fee	Return (Graph)	Returns (Table)	Returns (Low Vol)	Fee	Returns	Returns (Low Vol)
Numeracy	**0.059**	0.013	0.050	0.059	**0.076**	**0.106**	**0.107**
	(0.025)	(0.027)	(0.031)	(0.031)	(0.026)	(0.021)	(0.028)
Superannuation literacy	0.004	0.028	-0.018	0.023	0.051	0.008	0.078
	(0.029)	(0.030)	(0.042)	(0.039)	(0.041)	(0.035)	(0.042)
Passed attention check	0.017	0.053	0.117	**0.267**	**0.239**	0.127	-0.119
	(0.068)	(0.099)	(0.134)	(0.119)	(0.100)	(0.087)	(0.119)
Obs.	286	273	252	247	251	250	258
Pseudo R2	0.24	0.20	0.14	0.20	0.17	0.25	0.19

Notes: Panel A shows the proportion of participants who switch plans once during the 20-stage task. Panel B shows the marginal effects (delta-method standard errors in brackets) for logit estimations of probability that a participant made one (interior) switch during the 20 stage task. Standard errors are clustered by participant id. Effects in bold typeface are significant at the 5% level or less. Explanatory variables are: *Decreasing* - binary variable equal to 2 if participant responded to decreasing condition and 1 for increasing treatment; *Female* – binary variable equal to 1 for female participants and 0 for males; *Age:* polychotomous variable equal to 0 if participants is under 39 years, 1 if between 40 – 59 years, and 2 if over 60 years; *Married/de facto*: binary variable equal to 1 if married or living in de facto relationship and 0 otherwise; *Financial decision maker* – binary variable equal to 1 if the participant himself/herself is most responsible for the major financial decisions and 0 otherwise; *No dependents* – binary variable equal to 1 if the participant only supports himself/herself financially and 0 if more than one person; *High school graduate* – binary variable equal to 1 if the participant graduated from high school and 0 otherwise; *College diploma/degree* – binary variable equal to 1 if the highest school qualification is Bachelor Degree/Graduate Diploma/Master Degree/PhD and 0 otherwise; *Employed* – polychotomous variable taking the value 0 if unemployed/not in the labour force (inc. stay-at-home parents, full-time students, or others), 1 if employed part-time or full-time, and 2 if retired; *Weekly income* – polychotomous variable taking the value of 0 if negative or nil weekly (annual) gross personal income (before tax), 1 if $1-$399 ($1-$20,799), 2 if $400-$999($20,800-$51,999), 3 if $1,000 or more ($52,000 or more); *Comprehension* – number of correctly answered comprehension questions on the dashboard; *Financial literacy* number of correctly answered financial literacy questions; *Numeracy* – number of correctly answered numeracy questions; *Superannuation literacy* – number of correctly answered superannuation literacy questions; *Passed attention check* – binary variable equal to 1 if participants passed the attention check question and 0 otherwise; *Retirement balance* – log of participants' reported retirement account balance or 0 for missing balance.

Table 5: Numbers of participants switching at each choice set. Panel A: full dashboard

	Fee (Treatment 1)						Returns/Graph (Treatment 2)						Returns/Table (Treatment 3)						Returns/Low vol (Treatment 4)					
	Single		First		Final		Single		First		Final		Single		First		Final		Single		First		Final	
	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D
Set																								
2			5	6	1				8	12		2	1	1	5	7	5	1		2	5	7		1
3			3	2					3	3					7	6	7				5	4		1
4			1	2					2	2						2					11	2		
5			2	2					1	3					1	2	2				2	4		
6				2					3	2					1	1	1				2	4		
7			1	2					2	5	1				1	4	1							
8	2		2	1	2					1						1					3	2		
9				2						3						3						3		
10	1	7	2	7	1	10																4	1	
11	2	**52**	3	**56**	4	**56**			3			1										7		
12	29	17	32	21	30	18				1			2		2		2	1			2			
13	**34**	21	**34**	21	**37**	25			5	6		2			5	1	6			2	1	3	3	3
14	19	6	19	6	23	14				**56**			1	2	2	**45**	2	7	22	10	15	**40**	16	6
15	16	10	16	12	19	10	4		12		9		**29**	4	**46**	5	49	5	16	4	8	3	12	6
16		1		1	3	3	**37**		**51**		**51**	1	11	1	14	1	**14**	5	**80**	**12**	**45**	9	**44**	**40**
17	1		1		3	3	3	**8**	4	12	6	**81**	4	**14**	4	15	5	**47**	10	10	5	5	8	32
18					2	3	2		2	1	9	6	7		7		8	4	6	4	5	2	8	7
19					5	4	1	2	1	4	36	34	3	4	3	5	8	34	4	8	2	4	9	14
20					4						19	4	3	2	3	2	10	10		2		1	14	5
% Loss	I: -0.26**			D: -0.29*			I: -0.98			D: -1.20			I: -0.82			D: -1.30			I: -0.78			D: -0.95	

Table 5 continued. Panel B: simplified dashboard

	Fee (Treatment 5)						Returns; (Treatment 6)						Returns; Low vol (Treatment 7)					
	Single		First		Final		Single		First		Final		Single		First		Final	
	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D	I	D
Set																		
2			7	3					4	3					9	4		
3			1	1					2	6					3	3		
4			2	4						4					7	1		
5			1	1						3							1	
6				2	3				4	1					2			
7			1		1				2	1						1		
8										1	1							
9									1	1							1	1
10		1	4	3		1				1	1	1		1		11	1	1
11	1		2	2	1	1		2		6		5				9	1	
12	**29**	13	**36**	15	**35**	13						1	9		12		12	
13	16	**44**	17	**52**	18	**47**	6	6	9	6	9	7	1	14	5	14	2	26
14	13	9	13	11	17	9	1	**70**	10	**71**	11	**76**		**56**		**59**	2	**72**
15	18	24	18	24	23	38	**60**	2	**62**	3	**68**	8	10	5	11	5	15	9
16	1	1	1	1	3	5	6		6		8	4	**49**	2	**49**	2	**62**	7
17	1	1	1	1	4	2	1	8	1	8	5	12	12	**2**	12	2	15	**3**
18	2	2	2	2	6	5	3	1	3	1	7	4		1		1		7
19					2	5					4	2					3	4
20					3	1		1		1	8	5					2	
% Loss		I: -0.40				D: -0.45		I: -0.59***				D: -0.75***		I: -0.81				D: -0.49***

Notes: This table shows the number of participants switching plans at each of the 19 choice sets. We exclude suboptimal switches at the first set. "Single" column shows participants who made one switch in 20 choices; "First" column shows the first switching point for all participants who made one or more switches: "Final" column shows the last switching point for all participants who made one or more switches. "I" indicates conditions where the returns to alternative plan (HIJ) are increasing relative to constant plan (XYZ); "D" indicates conditions where the alternative plan returns (ABC) are decreasing relative to constant plan (XYZ). Dark grey cells show optimal switching points. Pale grey cells show sets where the 10 year average returns to HIJ (ABC) were equal to or higher (lower) than (XYZ). Maximum switches in bold. Last row shows the average % of lost balance due to sub-optimal switching and t-test for equality of means between full and simplified dashboard treatments. * p<0.1; **p<0.05; ***p<0.01.

Table 6: Marginal effects of information variables on plan switches

Panel A:	*First switch*						
	Δ1 yr ret	Δ10 yr ret	ΔFee	Single	Graph	Ps. R2	Obs.
Full dashboard							
Treatment 1 (FEE, GRAPH)							
Increasing			-0.002***	-0.024*		0.433	2780
			0.000	*0.070*			
Decreasing			-0.002***	-0.156*		0.595	2940
			0.000	*0.049*			
Treatment 2 (RETURNS, GRAPH)							
Increasing	0.515	0.318	0.002	0.058		0.232	2720
	0.325	*0.364*	*0.001*	*0.037*			
Decreasing	0.269	0.727***	-0.005***	-0.228***		0.267	2760
	0.245	*0.283*	*0.001*	*0.034*			
Treatment 3 (RETURNS, TABLE)							
Increasing	0.473*	0.440	-0.004*	0.055		0.287	2520
	0.255	*0.315*	*0.001*	*0.044*			
Decreasing	0.258	0.693**	-0.004***	-0.149***		0.261	2520
	0.255	*0.293*	*0.001*	*0.046*			
Treatment 4 (LOW VOLATILITY RETURNS, GRAPH or TABLE)							
Increasing	0.187	0.751**	-0.005***	0.250***	-0.148***	0.395	2460
	0.293	*0.331*	*0.001*	*0.044*	*0.042*		
Decreasing	0.193	0.805**	0.003***	-0.180***	0.039	0.315	2480
	0.280	*0.318*	*0.001*	*0.047*	*0.047*		
Simplified dashboard							
Treatment 5 (FEE)							
Increasing		0.505***	-0.556***	0.073		0.395	2460
		0.081	*0.063*	*0.059*			
Decreasing		-0.313***	-1.270***	-0.101*		0.518	2620
		0.079	*0.061*	*0.054*			
Treatment 6 (RETURNS)							
Increasing	0.984***	-0.020		0.032		0.414	2460
	0.041	*0.046*		*0.062*			
Decreasing	-0.019	1.189***	-1.843***	-0.215***		0.481	2540
	0.088	*0.100*	*0.220*	*0.057*			
Treatment 7 (LOW VOLATILITY RETURNS)							
Increasing	-0.041	1.030***	-1.399***	0.032***		0.413	2460
	0.068	*0.086*	*0.095*	*0.055*			
Decreasing	2.551***	6.094***	1.678	-0.131		0.419	2700
	0.451	*0.622*	*1.266*	*0.400*			

Panel B:	*Last switch*						
	Δ1 yr ret	Δ10 yr ret	ΔFee	Single	Graph	Ps. R2	Obs.
Full dashboard							
Treatment 1 (FEE, GRAPH)							
Increasing			-0.002***	-0.172**		0.676	2780
			0.000	*0.031*			
Decreasing			-0.002***	0.136**		0.745	2940
			0.000	*0.027*			
Treatment 2 (RETURNS, GRAPH)							
Increasing	3.995***	-3.145***	-0.003	-0.099***		0.677	2720
	0.748	*0.866*	*0.003*	*0.010*			
Decreasing	-1.766***	2.808***	-0.005***	0.005		0.569	2760
	0.183	*0.159*	*0.001*	*0.017*			
Treatment 3 (RETURNS, TABLE)							
Increasing	-0.802*	1.881***	-0.011***	-0.038		0.416	2520
	0.471	*0.527*	*0.002*	*0.028*			
Decreasing	-1.313**	2.304***	-0.003***	0.082***		0.570	2520
	0.663	*0.614*	*0.001*	*0.029*			
Treatment 4 (LOW VOLATILITY RETURNS, GRAPH or TABLE)							
Increasing	1.574***	-0.480	-0.003**	-0.099***	-0.068***	0.684	2460
	0.320	*0.326*	*0.001*	*0.016*	*0.017*		
Decreasing	-1.282***	2.333***	-0.002	0.034	-0.012	0.592	2480
	0.178	*0.186*	*0.001*	*0.031*	*0.022*		
Simplified dashboard							
Treatment 5 (FEE)							
Increasing		0.452	-0.599***	-0.070***		0.612	2400
		0.074	*0.064*	*0.037*			
Decreasing		-0.020***	-1.090***	0.139*		0.737	2620
		0.116	*0.076*	*0.023*			
Treatment 6 (RETURNS)							
Increasing	0.687***	0.331***		-0.090***		0.742	2460
	0.061	*0.072*		*0.024*			
Decreasing	0.080	1.004***	-1.400***	0.067***		0.731	2540
	0.145	*0.139*	*0.389*	*0.022*			
Treatment 7 (LOW VOLATILITY RETURNS)							
Increasing	0.554***	0.432***	0.057	0.000		0.653	2460
	0.079	*0.091*	*0.246*	*0.028*			
Decreasing	0.477***	0.496***	0.344	0.061***		0.750	2700
	0.042	*0.043*	*0.253*	*0.018*			

Notes: This table shows the estimated marginal effects of explanatory variables from logit models of participants' first (Panel A) and final (Panel B) switches in 20 plan choices. "Δ1 yr ret" is the difference in 1 year net returns (XYZ-ABC/HIJ); "Δ10 yr ret" is the difference in average 10 year net returns; "ΔFee" is the difference in fees; "Single" is a binary indicator for participants who made one switch between funds; "Graph" is a binary indicator for when historical returns were presented as a graph (not a table). Variables omitted from models of Treatment 1 and Treatment 6 (increasing) because of collinearity. Delta-method standard errors in italics. *p<0.1; **p<0.05; ***p<0.01.

Appendix A: ASIC example product dashboard

XYZ MySuper Dashboard

Use this dashboard to compare this XYZ MySuper with other MySuper products. Go to ASIC's MoneySmart website for more information on how to pick the right MySuper fund for you.

Return

10 year average return of 7.1% as at 30 June 2013.

Return target

Return target for 2014-2023 of 3% per year above inflation, after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return target and return

Past performance is not necessarily an indication of future returns.

Level of investment risk

High
Negative returns expected in 5 out of every 20 years

The higher the expected return target, the more often you would expect a year of negative returns.

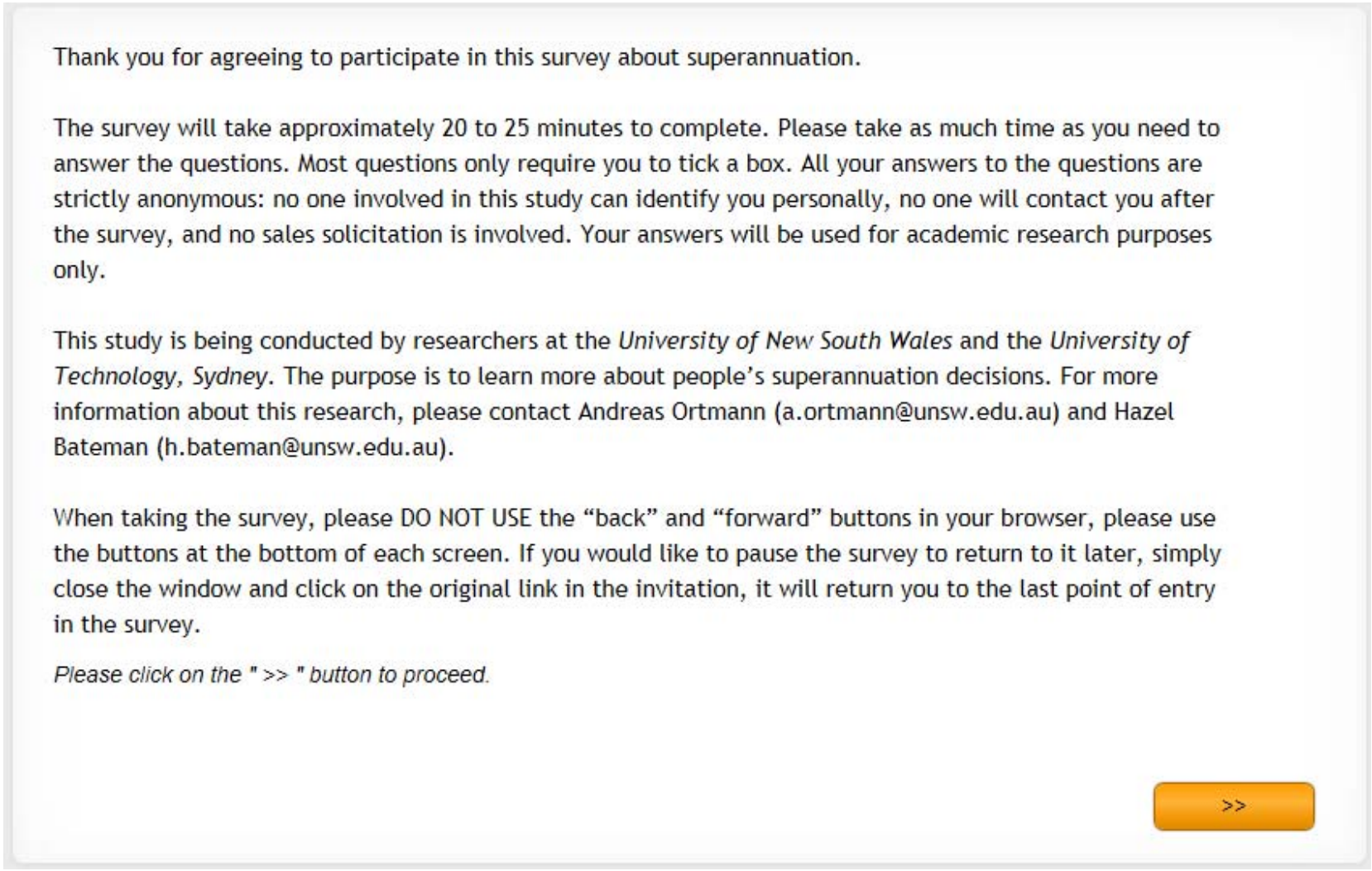
Statement of fees and other costs

$437 per year

Fees and other costs for a member with a $50,000 balance.

Flicking the Switch: How Fee and Return Disclosures Drive Retirement Plan Choice

Appendix B: Screenshots of Treatment 1 survey; live links to all surveys; screenshots of choice tasks for all treatments; and screenshot of incentive page.



Thank you for agreeing to participate in this survey about superannuation.

The survey will take approximately 20 to 25 minutes to complete. Please take as much time as you need to answer the questions. Most questions only require you to tick a box. All your answers to the questions are strictly anonymous: no one involved in this study can identify you personally, no one will contact you after the survey, and no sales solicitation is involved. Your answers will be used for academic research purposes only.

This study is being conducted by researchers at the *University of New South Wales* and the *University of Technology, Sydney*. The purpose is to learn more about people's superannuation decisions. For more information about this research, please contact Andreas Ortmann (a.ortmann@unsw.edu.au) and Hazel Bateman (h.bateman@unsw.edu.au).

When taking the survey, please DO NOT USE the "back" and "forward" buttons in your browser, please use the buttons at the bottom of each screen. If you would like to pause the survey to return to it later, simply close the window and click on the original link in the invitation, it will return you to the last point of entry in the survey.

Please click on the " >> " button to proceed.

>>

S1. Due to the nature of this survey you will be asked personal information such as your income and your housing situation. You have the right to refuse to answer any question but any such refusal implies that your participation the survey will automatically be terminated. Your answers to these questions are confidential, and cannot be used to identify you personally. They will be used only to make comparisons for different types of people, such as younger and older people, males and females, high and low income people, etc.

Please note that you may terminate participation in the survey at any time. However, only completed surveys will be given full compensation for participation.

Will you participate in this survey?

- (•) Yes
- ( ) No

<< >>

S2. Are you?

- ○ Male
- ○ Female

S3. To which age group do you belong?

- ○ Under 18 years
- ○ 18-24 years
- ○ 25-29 years
- ○ 30-34 years
- ○ 35-39 years
- ○ 40-44 years
- ○ 45-49 years
- ○ 50-54 years
- ○ 55-59 years
- ○ 60-64 years
- ○ 65-69 years
- ○ 70-74 years
- ○ 75 years and over

<< >>

S4. Do you have a superannuation account (Are you a member of any superannuation funds)?

- ○ Yes
- ○ No

<< >>

In the following task you will be presented with a choice between **two** MySuper superannuation funds. On each trial of the task you will see **two "dashboards"** that provide information about the two MySuper funds. This information includes, for each fund: the return, the return target, a graph showing the comparison between the target and the return, the level of investment risk and a statement of other fees and costs. On each trial, the annual information on each fund is updated. You should use this information to make a decision about which of the two MySuper funds you prefer. There will be **20 trials** showing 20 yearly updates, so you need to make 20 decisions in total.

Following this choice task, we will also ask you to answer questions regarding your comprehension of the information presented on the dashboard, and questions of a more general nature about financial literacy, numeracy and superannuation.

Please click on " >> " to continue.

<< >>

Below are definitions of some terms used on following screens. You will be able to review these definitions again during exercise.

Return:
Percent investment return to a member with $50,000 invested after fees and costs are deducted.

10 year average return:
Average of return for this year and previous nine years. Returns are for a member with $50,000 invested and are net of fees and costs.

Average return target:
Average of the return targets for this year and the previous nine years including the growth in the CPI (inflation).

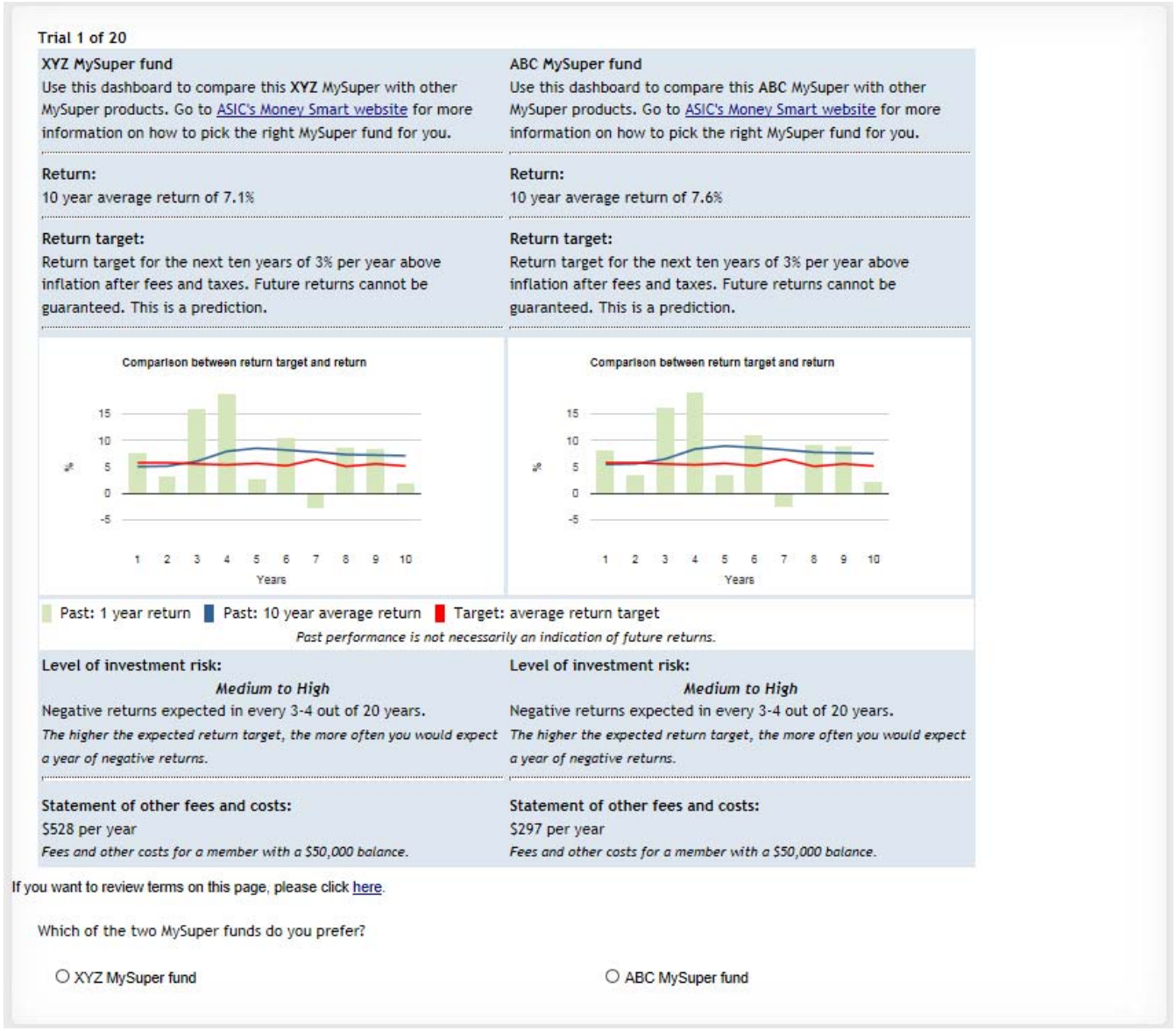
Fees and other costs:
Investment fees, administration fees, advice fees and other costs for this year charged to a member with $50,000 invested in this MySuper fund.

Please note, after making a choice on each screen in this exercise, you can either click on " >> " to continue, or simply press "Enter" key on keyboard to continue.

<< >>

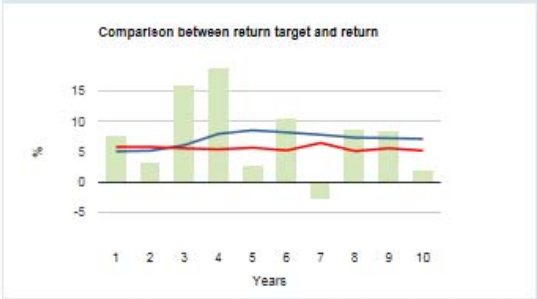
There are two versions for this section. Respondents are randomly assigned to one of the two versions. For each version, there are 20 tasks with each task showing two MySuper funds with dashboards. Respondents are asked to make a choice from the two dashboards.

The two versions are named “increasing” and “decreasing” versions. An example of each version is shown on following pages.



This is the “decreasing” version

Trial 1 of 20

XYZ MySuper fund	HIJ MySuper fund
Use this dashboard to compare this **XYZ** MySuper with other MySuper products. Go to ASIC's Money Smart website for more information on how to pick the right MySuper fund for you.	Use this dashboard to compare this **HIJ** MySuper with other MySuper products. Go to ASIC's Money Smart website for more information on how to pick the right MySuper fund for you.
Return: 10 year average return of 7.1%	**Return:** 10 year average return of 6.7%
Return target: Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.	**Return target:** Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.
	
Past: 1 year return Past: 10 year average return Target: average return target *Past performance is not necessarily an indication of future returns.*	
Level of investment risk: ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*	**Level of investment risk:** ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*
Statement of other fees and costs: $528 per year *Fees and other costs for a member with a $50,000 balance.*	**Statement of other fees and costs:** $772 per year *Fees and other costs for a member with a $50,000 balance.*

If you want to review terms on this page, please click here.

Which of the two MySuper funds do you prefer?

○ XYZ MySuper fund ○ HIJ MySuper fund

This is the “increasing” version

We will now ask you eight questions regarding your comprehension of the information presented in the survey. You have the right to refuse to answer any question but any such refusal implies that your participation the survey will automatically be terminated.

<< >>

C1. What do you think is the **most useful** piece of information for comparing funds? (Choose only one.)

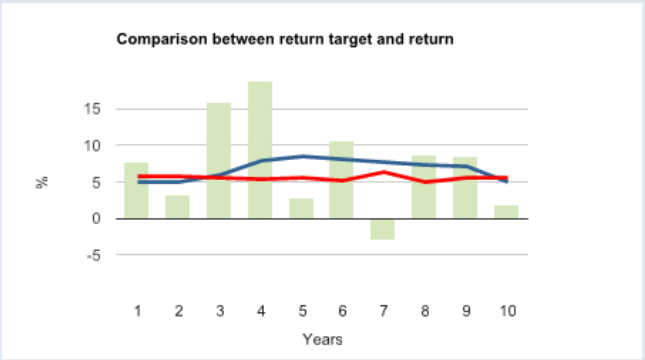
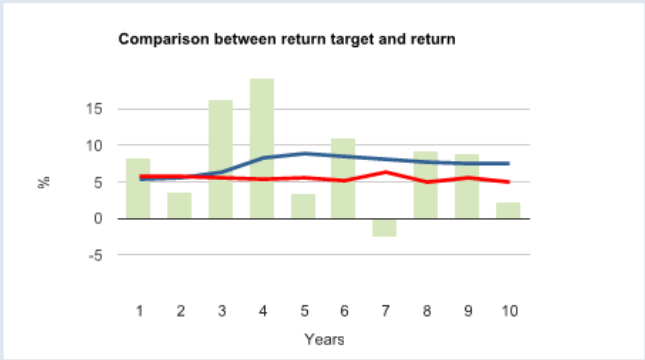
- ○ 10 year average return
- ○ Return target
- ○ Graph
- ○ Level of investment risk
- ○ Fees and costs

C2. Which piece(s) of information did you **most often use** when choosing a fund? (Choose any that apply.)

- ☐ 10 year average return
- ☐ Return target
- ☐ Graph
- ☐ Level of investment risk
- ☐ Fees and costs

On each page, we show the following example to assist respondents in answering these questions.

An example dashboard is provided below for your reference.

MySuper fund 1	MySuper fund 2
Return: 10 year average return of 7.1%	**Return:** 10 year average return of 7.6%
Return target: Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.	**Return target:** Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.
	
Past: 1 year return Past: 10 year average return Target: average return target *Past performance is not necessarily an indication of future returns.*	
Level of investment risk: ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*	**Level of investment risk:** ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*
Statement of other fees and costs: $528 per year *Fees and other costs for a member with a $50,000 balance.*	**Statement of other fees and costs:** $397 per year *Fees and other costs for a member with a $50,000 balance.*

C3. On the graph, if the red line is ABOVE the blue line, this means:

- ○ That on average, the fund has returned more than the target return over the past 10 years
- ○ That on average, the fund has not kept up with inflation over the past 10 years
- ○ That on average, the fund has returned more than other funds over the past 10 years
- ○ That on average, the fund has returned less than the target return over the past 10 years

C4. If the fund loses money one year, for that year, the graph always shows:

- ○ The blue line below the red line
- ○ The red line below the blue line
- ○ The green bar below the horizontal axis
- ○ The green bar lower than last year's green bar

C5. The level of investment risk for this fund is "negative returns expected every 3-4 out of 20 years". If the first 5 years in the graph showed four (4) negative returns, how many negative returns would you expect to see in the NEXT **5** years of the graph?

- ○ Answer a: 0
- ○ Answer b: 1
- ○ Answer c: 2
- ○ Answers a, b and c are all equally likely

C6. The level of investment risk for this fund is "negative returns expected every 3-4 out of 20 years". If the first 5 years in the graph showed four (4) negative returns, how many negative returns would you expect to see in the NEXT **15** years of the graph?

- ○ Answer a: 0
- ○ Answer b: 2
- ○ Answer c: 3
- ○ Answers a, b and c are all equally likely

C7. In the previous part of the survey when you compared the two funds, what did you notice about fees and costs?

- ◯ I didn't notice the fees and costs
- ◯ The fees for one fund mainly went up while the other stayed about the same
- ◯ The fees for one fund mainly went down while the other stayed about the same
- ◯ The fees for both funds stayed about the same

C8. The returns information on the table (returns and target returns)

- ◯ Have fees and costs still included
- ◯ Have fees and costs deducted
- ◯ Have fees deducted but administration costs included

The following questions measure your general financial competence and numeracy skills. Please answer the questions without using a calculator.

On a scale of **1** to **7**, where 1 means very low and 7 means very high, how would you assess your understanding of finance?

	Very low			About average			Very high
	1	**2**	**3**	**4**	**5**	**6**	**7**
Please tick one	○	○	○	○	○	○	○

Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- ○ More than $102
- ○ Exactly $102
- ○ Less than $102
- ○ Do not know

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- ○ More than today
- ○ Exactly the same
- ○ Less than today
- ○ Do not know

Buying shares in a single company usually provides a safer return than buying units in a managed share fund.

- ○ True
- ○ False
- ○ Do not know

<< >>

Imagine that we rolled a fair, six-sided die 1,000 times. Out of 1,000 rolls, how many times do you think the die would come up even?

Please enter a number between 0 to 1000 in the box.

[ ] times

In a lottery, the chance of winning a $500 prize is 1%. What is your best guess of how many people would win the prize if 1,000 people each buy a single ticket in the lottery?

Please enter a number between 0 to 1000 in the box.

[ ] people

In a raffle, the chance of winning a car is 1 in 1,000. What per cent of tickets in the raffle win a car?

Please enter a percentage.

[ ] %

<< >>

This set of questions measure your baseline knowledge of the Australian superannuation system.

Employers are required to pay superannuation contributions into the superannuation accounts of most of their employees. Is there a mandatory minimum employer contribution rate?

Please select all that apply.

- (•) Yes
- ( ) No
- ( ) Do not know

What % of an employee's salary is an employer currently required to contribute to superannuation?

Please enter a percentage.

[ ] %

<< >>

This set of questions measure your baseline knowledge of the Australian superannuation system.

Employers are required to pay superannuation contributions into the superannuation accounts of most of their employees. Is there a mandatory minimum employer contribution rate?

Please select all that apply.

- (•) Yes
- ( ) No
- ( ) Do not know

What % of an employee's salary is an employer currently required to contribute to superannuation?

Please enter a percentage.

[ ] %

<< >>

If you haven't chosen a superannuation fund your employer must pay your superannuation into a superannuation fund that offers MySuper.

- ○ True
- ○ False
- ○ Do not know

Superannuation funds deduct fees from member's superannuation accounts.

- ○ True
- ○ False
- ○ Do not know

Is the following statement true or false?
"For most people, superannuation is taxed at a higher rate than a similar investment outside superannuation".

- ○ True
- ○ False
- ○ Do not know

<< >>

Can people make voluntary contributions to their superannuation accounts?

- (•) Yes
- ( ) No
- ( ) Do not know

Are there any limits to the amount of these voluntary contributions?

- ( ) No. There are no limits.
- ( ) No. There are no limits to the amount but contributions above the contributions caps are taxed at higher rates.
- ( ) Yes. Individuals cannot contribute in excess of the contribution caps.
- ( ) Do not know

If your superannuation account is invested in a "balanced" investment option, this means that it is invested exclusively in safe assets such as savings accounts, cash management accounts and term deposits.

- ( ) True
- ( ) False
- ( ) Do not know

<< >>

You are allowed to borrow from your superannuation account.

- ○ True
- ○ False
- ○ Do not know

If you have any superannuation, you will not qualify for the Age Pension.

- ○ True
- ○ False
- ○ Do not know

Do you know the minimum age at which you can spend the money in your superannuation account?

- ○ Yes
- ○ No

<< >>

Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- ○ More than $102
- ○ Exactly $102
- ○ Less than $102
- ○ Do not know

Buying shares in a single company usually provides a safer return than buying units in a managed share fund.

- ○ True
- ○ False
- ○ Do not know

Have you seen these questions previously in this survey?

- ○ Yes
- ○ No

<< >>

We will now ask you the questions about your personal information mentioned at the beginning of the survey. You have the right to refuse to answer any questions but any such refusal implies that your participation the survey will automatically be terminated. Your answers to these questions are confidential and cannot be used to identify you personally. They will be used to make comparisons for different types of people, such as younger and older people, males and females, high and low income people etc.

<< >>

What is your date of birth?

day month year

What is your current marital status?

- Never married and not living in a long term (de facto) relationship
- Widowed
- Divorced
- Separated but not divorced
- Married
- Living in long term relationship (de facto)

Who is most responsible for the major financial decisions in your household?

- I am
- Someone else
- Someone else and I are equally responsible

How many people in your household do you fully or partially support financially?

- 1 (myself)
- 2
- 3
- 4 or more

<< >>

What is the highest level of school you have completed?

- ○ Year 12 or equivalent
- ○ Year 11 or equivalent
- ○ Year 10 or equivalent
- ○ Year 9 or equivalent
- ○ Year 8 or equivalent
- ○ Year 7 or equivalent
- ○ Year 6 or below
- ○ Did not go to school

What is the highest post school qualification you have?

- ○ PhD
- ○ Master Degree or equivalent
- ○ Graduate Diploma and Graduate Certificate from university or equivalent
- ○ Bachelor Degree or equivalent
- ○ Advanced Diploma and Diploma from university/TAFE or equivalent
- ○ Certificate or equivalent from TAFE or equivalent
- ○ None of the above

Which of the following best describes your current work status?

- ○ Employed full time
- ○ Employed part time
- ○ Unemployed
- ○ Not in the labour force - Stay-at-home parent or caregiver
- ○ Not in the labour force - Full-time student
- ○ Not in the labour force - Retired
- ○ Not in the labour force - Other

Which of the following categories best describes your weekly (annual) gross ***personal income*** (before tax)?

- ○ Negative income
- ○ Nil income
- ○ $1-$199 ($1-$10,399)
- ○ $200-$299 ($10,400-$15,599)
- ○ $300-$399 ($15,600-$20,799)
- ○ $400-$599 ($20,800-$31,199)
- ○ $600-$799 ($31,200-$41,599)
- ○ $800-$999 ($41,600-$51,999)
- ○ $1,000-$1,249 ($52,000-$64,999)
- ○ $1,250-$1,499 ($65,000-$77,999)
- ○ $1,500-$1,999 ($78,000-$103,999)
- ○ $2,000 or more ($104,000 or more)

Which of the following categories best describes your weekly (annual) gross ***household income*** (before tax)?

- ○ Negative income
- ○ Nil income
- ○ $300-$399 ($15,600-$20,799)
- ○ $400-$599 ($20,800-$31,199)
- ○ $600-$799 ($31,200-$41,599)
- ○ $800-$999 ($41,600-$51,999)
- ○ $1,000-$1,249 ($52,000-$64,999)
- ○ $1,250-$1,499 ($65,000-$77,999)
- ○ $1,500-$1,999 ($78,000-$103,999)
- ○ $2,000-$2,499 ($104,000-$129,999)
- ○ $2,500-$2,999 ($130,000-$155,999)
- ○ $3,000-$3,499 ($156,000-$181,999)
- ○ $3,500-$3,999 ($182,000-$207,999)
- ○ $4,000-$4,999 ($208,000-$259,999)
- ○ $5,000 or more ($260,000 or more)

Think about your savings in your superannuation fund (or funds if you have superannuation savings in more than one super fund). What is the total amount of superannuation in your super fund (or in all super funds combined if you have accounts in more than one super fund)?

Please enter a whole number.

$

<< >>

This concludes the survey. Thank you very much for your valuable time and feedback.

Please click on " >> " to claim your points.

<< >>

Links to complete surveys:

Treatment 1 (Incentive) – http://survey.confirmit.com/wix/p3069758398.aspx

Treatment 1 (Non-incentivised) – http://survey.confirmit.com/wix/p3069758526.aspx

Treatment 2 (Incentive) – http://survey.confirmit.com/wix/p3070646490.aspx

Treatment 3 (Incentive) – http://survey.confirmit.com/wix/p3072417780.aspx

Treatment 4 (Incentive – Low volatility) – http://survey.confirmit.com/wix/p3074055240.aspx

Treatment 5 (Incentive) – http://survey.confirmit.com/wix/p3074907823.aspx

Treatment 6 (Incentive) – http://survey.confirmit.com/wix/p3076090311.aspx

Treatment 7 (Incentive – Low Volatility) – http://survey.confirmit.com/wix/p3076090642.aspx

Screenshots of Dashboards for Treatments 2-7 and incentive description.

Treatment 2

Trial 1 of 20

XYZ MySuper fund

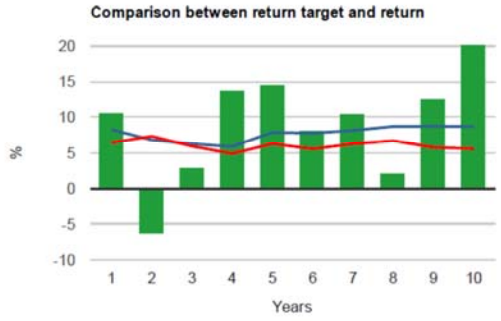
Use this dashboard to compare this **XYZ** MySuper with other MySuper products.

Return:

10 year average return of 8.7%

Return target:

Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.



Level of investment risk:

Medium to High

Negative returns expected in every 3-4 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$530 per year

Fees and other costs for a member with a $50,000 balance.

HIJ MySuper fund

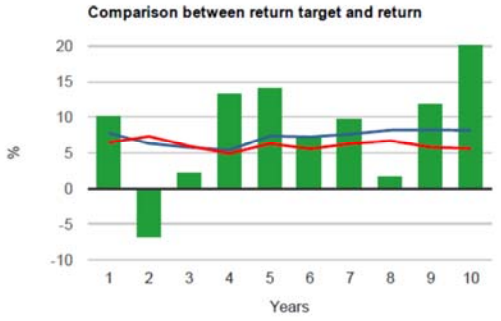
Use this dashboard to compare this **HIJ** MySuper with other MySuper products.

Return:

10 year average return of 8.2%

Return target:

Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.



Past: 1 year return Past: 10 year average return Target: average return target

Past performance is not necessarily an indication of future returns.

Level of investment risk:

Medium to High

Negative returns expected in every 3-4 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$526 per year

Fees and other costs for a member with a $50,000 balance.

If you want to review terms on this page, please click here. By doing so, a separate new window will open to show definitions of these terms again. Please remember to return to this window to continue survey after you have finished reviewing definitions, by clicking this survey tab at the top of your browser.

Which of the two MySuper funds do you prefer?

- XYZ MySuper fund
- HIJ MySuper fund

<< >>

Treatment 3

Trial 1 of 20

XYZ MySuper fund	**HIJ MySuper fund**
Use this dashboard to compare this **XYZ** MySuper with other MySuper products.	Use this dashboard to compare this **HIJ** MySuper with other MySuper products.
Return: 10 year average return of 8.7%	**Return:** 10 year average return of 8.2%
Return target: Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.	**Return target:** Return target for the next ten years of 3% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	10.73%	8.28%	6.42%
Year 2	-6.34%	6.80%	7.33%
Year 3	2.86%	6.24%	5.92%
Year 4	13.86%	5.88%	4.89%
Year 5	14.57%	7.89%	6.27%
Year 6	8.05%	7.77%	5.55%
Year 7	10.37%	8.15%	6.26%
Year 8	2.17%	8.72%	6.69%
Year 9	12.51%	8.75%	5.76%
Year 10	20.74%	8.70%	5.58%

Past performance is is not necessarily an indication of future returns.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	10.23%	7.79%	6.42%
Year 2	-6.84%	6.30%	7.33%
Year 3	2.34%	5.74%	5.92%
Year 4	13.36%	5.37%	4.89%
Year 5	14.06%	7.38%	6.27%
Year 6	7.54%	7.26%	5.55%
Year 7	9.87%	7.65%	6.26%
Year 8	1.66%	8.22%	6.69%
Year 9	12.00%	8.24%	5.76%
Year 10	20.29%	8.20%	5.58%

Past performance is is not necessarily an indication of future returns.

Level of investment risk: ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*	**Level of investment risk:** ***Medium to High*** Negative returns expected in every 3-4 out of 20 years. *The higher the expected return target, the more often you would expect a year of negative returns.*
Statement of fees and other costs: $530 per year *Fees and other costs for a member with a $50,000 balance.*	**Statement of fees and other costs:** $526 per year *Fees and other costs for a member with a $50,000 balance.*

If you want to review terms on this page, please click here. By doing so, a separate new window will open to show definitions of these terms again. Please remember to return to this window to continue survey after you have finished reviewing definitions, by clicking this survey tab at the top of your browser.

Which of the two MySuper funds do you prefer?

- ○ XYZ MySuper fund
- ○ HIJ MySuper fund

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Treatment 4

Trial 1 of 20

XYZ MySuper fund

Use this dashboard to compare this XYZ MySuper with other MySuper products.

Return:

10 year average return of 4.1%

Return target:

Return target for the next ten years of 1% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	5.06%	4.30%	3.54%
Year 2	5.14%	4.53%	4.01%
Year 3	3.23%	4.26%	3.62%
Year 4	3.54%	4.24%	4.16%
Year 5	5.25%	4.33%	3.41%
Year 6	2.62%	4.10%	3.16%
Year 7	2.86%	3.99%	3.25%
Year 8	5.15%	4.16%	4.05%
Year 9	4.22%	4.16%	3.91%
Year 10	4.15%	4.12%	4.07%

Past performance is is not necessarily an indication of future returns.

Level of investment risk:

Very Low

Negative returns expected less than 0.5 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$523 per year

Fees and other costs for a member with a $50,000 balance.

ABC MySuper fund

Use this dashboard to compare this ABC MySuper with other MySuper products.

Return:

10 year average return of 4.6%

Return target:

Return target for the next ten years of 1% per year above inflation after fees and taxes. Future returns cannot be guaranteed. This is a prediction.

Comparison between return and target return

	Past 1 year return	Past 10 year average return	Target average return
Year 1	5.55%	4.78%	3.54%
Year 2	5.63%	5.01%	4.01%
Year 3	3.71%	4.75%	3.62%
Year 4	4.02%	4.72%	4.16%
Year 5	5.73%	4.81%	3.41%
Year 6	3.10%	4.58%	3.16%
Year 7	3.34%	4.48%	3.25%
Year 8	5.62%	4.65%	4.05%
Year 9	4.71%	4.64%	3.91%
Year 10	4.58%	4.60%	4.07%

Past performance is is not necessarily an indication of future returns.

Level of investment risk:

Very Low

Negative returns expected less than 0.5 out of 20 years.

The higher the expected return target, the more often you would expect a year of negative returns.

Statement of fees and other costs:

$532 per year

Fees and other costs for a member with a $50,000 balance.

If you want to review terms on this page, please click here. By doing so, a separate new window will open to show definitions of these terms again. Please remember to return to this window to continue survey after you have finished reviewing definitions, by clicking this survey tab at the top of your browser.

Which of the two MySuper funds do you prefer?

- ○ XYZ MySuper fund
- ○ ABC MySuper fund

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Treatment 5

Trial 1 of 20

XYZ MySuper fund Use this dashboard to compare this **XYZ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	1.8%
10 year average return (after fees and costs)	7.1%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

HIJ MySuper fund Use this dashboard to compare this **HIJ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	1.4%
10 year average return (after fees and costs)	6.7%
Current fees and costs as a percentage of a $50,000 balance	1.5%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

Which of the two MySuper funds do you prefer?

○ XYZ MySuper fund ○ HIJ MySuper fund

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Treatment 6

Trial 1 of 20

XYZ MySuper fund Use this dashboard to compare this **XYZ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	20.7%
10 year average return (after fees and costs)	8.7%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

ABC MySuper fund Use this dashboard to compare this **ABC** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	20.3%
10 year average return (after fees and costs)	8.2%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is a 1 in four chance of a negative return each year

Which of the two MySuper funds do you prefer?

○ XYZ MySuper fund ○ ABC MySuper fund

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Treatment 7

Trial 1 of 20

XYZ MySuper fund Use this dashboard to compare this **XYZ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	4.2%
10 year average return (after fees and costs)	4.1%
Current fees and costs as a percentage of a $50,000 balance	1.0%
Level of Investment Risk	There is less than a 1 in forty chance of a negative return each year

HIJ MySuper fund Use this dashboard to compare this **HIJ** MySuper with other MySuper products	
1 year return (after fees and costs) Past performance is not necessarily an indication of future returns	4.6%
10 year average return (after fees and costs)	4.6%
Current fees and costs as a percentage of a $50,000 balance	1.1%
Level of Investment Risk	There is less than a 1 in forty chance of a negative return each year

Which of the two MySuper funds do you prefer?

○ XYZ MySuper fund ○ HIJ MySuper fund

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Incentive page

In the following task you will be presented with a choice between **two** MySuper superannuation funds. On each trial of the task you will see **two "dashboards"** that provide information about the two MySuper funds. This information includes, for each fund: the 1 year return, the 10 year average return, the level of investment risk and a statement of fees and costs. On each trial, the annual information on each fund is updated. You should use this information to make a decision about which of the two MySuper funds you prefer. There will be **20 trials** showing 20 yearly updates, so you need to make 20 decisions in total.

Following this choice task, we will also ask you to answer questions regarding your comprehension of the information presented on the dashboard, and questions of a more general nature about financial literacy, numeracy and superannuation.

Please confirm the following text by clicking on " >> " below after you have read it:
At the end of the experiment you will be awarded bonus pureprofile points. Your specific earnings will depend on the answers you give to either the set of questions on product disclosure statements (the "task") or the set of comprehension questions on the task or the series of questions to determine your financial knowledge and skills.

One of these three sets of questions will be chosen at random, and your performance on the chosen set will determine your earnings

Please click on " >> " to continue.

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Flicking the Switch: How Fee and Return Disclosures Drive Retirement Plan Choice.

Appendix C: Calculation of dashboard data

We calibrated the experiment to the most common (default) MySuper investment product, a Strategic Asset Allocation fund. The average mix of assets in an SAA MySuper product is close to 70% growth and 30% defensive (Chant et al. 2014, Table 2). The weights we chose for six asset classes mimic the allocation of a typical SAA default fund (T1-3 and T5-6). Growth assets consist of Australian and international equities and property; defensive assets consist of Australian and international bonds and Australian cash (Table D1). For the low volatility treatments (T4 and T7), only defensive Australian assets are included.

We set the base fees for the constant fund (XYZ) at the average MySuper fee on a $50K account balance of 1.06% p.a., or $530.00 (Chant et al. 2014, Table 5). At each choice set, we added random variation to the fees by adding draws from a normal distribution with mean zero and standard deviation of 3.33 to the base fee level. We calibrated the high starting fee level for T1 and T5 to $800 (increasing condition) and the low fee level to $270 (decreasing condition) approximating observed variation in MySuper SAA default fees.

Steps:

1. We computed 288 gross monthly portfolio returns $R_{p,t} = \Sigma_{n=1}^{6} w_n R_{n,t}, 1 = \Sigma_{n=1}^{6} w_n$ where w_n is the weight allocated to asset class *n* and $R_{n,t}$ is the gross monthly return to asset class *n* in month *t* in Australian dollars.
2. From the 288 monthly portfolio returns we bootstrapped 31 x 12 months of portfolio returns and the associated monthly changes in the CPI and computed annual gross nominal portfolio returns as $R_{p,i} = \Pi_{t=1}^{12} R_{p,t,i}$ where $i = 1, \dots, 31$. and compute the average 10 year gross nominal return $\bar{R}_{p,i} = (\Pi_{k=i-10}^{i} R_{p,k})^{1/10}$. The 31 bootstraps give us 20 years of data for the choice set, preceded by 10 years of "historical returns" used to calculate the 10 year average net return in the first choice set and lines for the returns graph.
3. For the constant fund, we calculate the nominal 1 year return net of fees (1.06% of a $50K balance) and 7% taxes on earnings as $r_i = [R_{p,i} - (0.0106 + x_i)]0.93 - 1$ where x_i is the random adjustment to the base fee described above. The 10 year average net return is $\bar{r}_i = \Pi_{k=i-10}^{i}(1 + r_k)^{1/10} - 1$. (We sum the return target plus the average CPI over the same 10 years as used to calculate $\bar{r}_i$ to compute the blue line on the dashboard graph.)
4. For Treatments 1 and 5, difference in fees drive the differences in performance between the constant and alternative funds. For the increasing condition in Treatment 1 (and 5), we follow step 3, but starting with a fee level of $800/$50000 or 1.6%. At each choice set this fee decreased by a randomly drawn dollar amount between $20-$30, e.g. $775/$50000, $751/$50000 etc. until it equals the fee for the constant fund (1.06%) and then decreases lower. This decline in fees also means that the net returns of the alternative fund gradually increases

over the 20 choice sets. For the decreasing condition, the starting fee is $270/$50000 or 0.54%. At each choice set this fee increases by a randomly drawn dollar amount between $20-$30, e.g. $300/$50000, $326/$50000 etc., until it equals and exceeds the constant fund fee. This increase in fees also ensures a gradual decline in the net returns of the alternative fund over the 20 choice sets.

5. For Treatments 2, 3, 4, 6 and 7 difference in returns, not fees drive the differences in performance between the constant and alternative funds. (This treatment mimics differences in performance due to investment management such as asset or fund manager selection or market timing). For the increasing and decreasing conditions in Treatment 2 (3, 4, 6, and 7) differences in performance are evident in returns not fees. Fees for both the constant and alternative funds are calculated as for the constant fund at step 3, that is, as 1.06% of a $50K balance with a small random adjustment at each choice set. However the fee penalty (bonus) from step 4 is applied to net returns of the alternative fund in the decreasing (increasing) condition. The high (Treatments 2, 3, and 6) and low (Treatments 4, and 7) volatility settings are generated by changes to asset allocation in the underlying portfolio. (Low volatility returns are computed from bootstrapping historical returns to cash and fixed interest assets.)

Table C1: Portfolio structure and data sources

	Asset class							
	Australian Equities	**International Equities**	**Property**	**International Bonds**	**Australian Bonds**	**Australian Cash**	**AUD/USD**	**CPI**
Weights T1-T3 and T5-T6	30%	25%	15%	10%	10%	10%		
Weight T4 and T7	0	0	0	0	20%	80%		
Source	Datastream Australia-DS Market Total Returns Index TOTMKAU(RI)	Datastream MSCI WORLD EX AU U$ - Total Returns Index MSWXAU$(RI)	Datastream S&P AUSTRALIA PROPERTY - Total Returns Index SBBPAUL(RI)	Datastream JPM GLOBAL GOVT.BND X.AUSTRALIA A$ - Total Returns Index JPMGXAU(RI)	Datastream UBS AU COMPOSITE ALL MATURITIES Total Returns Index ACIALLM	Datastream UBS AU BANK BILL ALL MATURITIES Total Returns Index ABNKBLI	Datastream AUSTRALIAN $ TO US $ - EXCHANGE RATE USDAUSP	RBA Bulletin Database Table G1 All groups seasonally adjusted GCPIAGSAYP
Sample	30/12/89-30/01/14	30/12/89-30/01/2014	30/12/89-30/01/14	30/12/89-30/01/14	30/12/89-30/01/14	30/12/89-30/01/14	30/12/89-30/01/14	30/12/89-30/01/14

Note: Quarterly CPI data were linearly interpolated to monthly frequency. International equity index values were converted from USD to AUD using end-month exchange rates.

Flicking the Switch: How Fee and Return Disclosures Drive Retirement Plan Choice

Appendix D: Sample demographics summary statistics

	Sample		Pop'n (18-64 yrs)		Sample		Pop'n (18-64 yrs)
Demographics	**count**	**%**	**%**		**count**	**%**	**%**
Gender				**School Education**			
male	903	49.7%	49.6%	Year 12 or equivalent	1441	79.3%	59.3%
female	915	50.3%	50.5%	Year 11 or equivalent	121	6.7%	10.5%
Age				Year 10 or equivalent	205	11.3%	21.8%
18-24 years	106	5.8%	15.0%	Year 9 or equivalent	32	1.8%	4.7%
25-29 years	191	10.5%	11.2%	Year 8 or equivalent	8	0.4%	3.0%
30-34 years	257	14.1%	10.8%	Year 7 or equivalent	5	0.3%	0.0%
35-39 years	239	13.1%	11.3%	Year 6 or below	3	0.2%	0.0%
40-44 years	210	11.6%	11.4%	Did not go to school	3	0.2%	0.6%
45-49 years	193	10.6%	11.1%	**Post-school qualification**			
50-54 years	222	12.2%	10.7%	PhD	25	1.4%	1.7%
55-59 years	204	11.2%	9.6%	Master Degree or equivalent	161	8.9%	10.9%
60-64 years	196	10.8%	8.9%	Grad. Dip. or Grad. Cert.	120	6.6%	8.1%
Marital status				Bachelor Degree or equivalent	508	27.9%	34.3%
Never married and not living in a long term (de facto) relationship	437	24.0%	36.9%	Diploma (University or Vocational training)	241	13.3%	16.3%
Widowed	20	1.1%	1.3%	Vocational certificate	426	23.4%	28.8%
Divorced	129	7.1%	8.6%	None of the above	337	18.5%	0.0%
Separated but not divorced	45	2.5%	3.4%	**Employment status**			
Married	908	49.9%	49.8%	Employed full time	989	54.4%	50.7%
Living in long term relationship (de facto)[a]	279	15.3%		Employed part time	420	23.1%	22.1%
				Unemployed	90	5.0%	4.4%
				Not in the labour force	319	17.5%	22.8%

Major financial decision maker						
I am	1090	60.0%				
some else	113	6.2%	**Wkly(ann.) gross personal income**			
some and I equally	615	33.8%	Negative income	12	0.7%	0.6%
No. of people supported financially			Nil income	94	5.2%	6.7%
1	356	19.6%	$1-$199 ($1-$10,399)	108	5.9%	6.9%
2	327	18.0%	$200-$299 ($10,400-$15,599)	94	5.2%	8.5%
3	172	9.5%	$300-$399 ($15,600-$20,799)	112	6.2%	7.7%
4 or more	336	18.5%	$400-$599 ($20,800-$31,199)	193	10.6%	11.9%
Savings in super			$600-$799 ($31,200-$41,599)	202	11.1%	12.7%
Nil	40	2.20%	$800-$999 ($41,600-$51,999)	192	10.6%	10.6%
less than $49,999	836	45.98%	$1,000-$1,249 ($52,000-$64,999)	228	12.5%	10.3%
$50,000-$99,999	329	18.10%	$1,250-$1,499 ($65,000-$77,999)	179	9.8%	7.3%
$100,000-$499,999	505	27.78%	$1,500-$1,999 ($78,000-$103,999)	231	12.7%	8.6%
$500000 or more	125	6.88%	$2,000 or more ($104,000 or more)	129	7.1%	8.2%
Total observations	1818					

Note: Population percentages computed from 2011 Australian census, 18 to 64 years age groups. a Census does not include the category “Living in long term relationship (de facto)”.

Flicking the Switch: How Fee and Return Disclosures Drive Retirement Plan Choice

Appendix E: Dashboard comprehension and financial literacy questions

Dashboard comprehension

Correct answers in italics

C1. What do you think is the most useful piece of information for comparing funds? (Choose only one) a. 10 year average return; b. Return target; c. Graph; d. Level of investment risk; e. Fees and costs

C2. Which piece(s) of information did you most often use when choosing a fund? (Choose any that apply.) a. 10 year average return; b. Return target; c. Graph; d. Level of investment risk; e. Fees and costs.

C3. (Treatments 1, 2 and graph condition in Treatment 4) On the graph, if the red line is ABOVE the blue line, this means: a. That on average, the fund has returned more than the target return over the past; b. That on average, the fund has not kept up with inflation over the past 10 years; c. That on average, the fund has returned more than other funds over the past 10 years; *d. That on average, the fund has returned less than the target return over the past 10 years.*

C3b (Treatment 3 and table condition in Treatment 4) In the table, if the 10 year average return is HIGHER THAN the target average return, this means: *a. That on average, the fund has returned more than the target return over the past;* b. That on average, the fund has not kept up with inflation over the past 10 years; c. That on average, the fund has returned more than other funds over the past 10 years; d. That on average, the fund has returned less than the target return over the past 10 years.

C4. (Treatments 1, 2 and graph condition in Treatment 4) If the fund loses money one year, for that year, the graph always shows: a. The blue line below the red line; b. The red line below the blue line; *c. The green bar below the horizontal axis*; d. The green bar lower than last year's green bar.

C4b (Treatment 3, and table condition in Treatment 4) If the fund loses money one year, for that year, the table always shows: a. The target average return below the 10 year average return; b. The 10 year average return below the target average return; *c. The 1 year return below 0%;* d. The 1 year return lower than last year's 1 year return.

C5. (Treatments 1-4) The level of investment risk for this fund is "negative returns expected every 3-4 out of 20 years". If the first 5 years in the graph (table) showed four (4) negative returns, how many negative returns would you expect to see in the NEXT 5 years of the graph? a. 0; *b. 1*; c. 2; d. Answers a, b and c are all equally likely.

C5b. (Treatments 5-7) The level of investment risk for this fund is a "1 in four chance of a negative return each year". If the first 5 years showed four (4) negative returns, how many negative returns would you expect to see in the NEXT 5 years? ? a. 0; *b. 1*; c. 2; d. Answers a, b and c are all equally likely.

C6. (Treatments 1-4) The level of investment risk for this fund is "negative returns expected every 3-4 out of 20 years". If the first 5 years in the graph (table) showed four (4) negative returns, how many negative returns would you expect to see in the NEXT 15 years of the graph? a. 0; b. 2; *c. 3*; d. Answers a, b and c are all equally likely.

C6b. (Treatments 5-7) The level of investment risk for this fund is a "1 in four chance of a negative return each year". If the first 5 years showed four (4) negative returns, how many negative returns would you expect to see in the NEXT 15 years? a. 0; b. 2; *c. 3*; d. Answers a, b and c are all equally likely.

C7. In the previous part of the survey when you compared the two funds, what did you notice about fees and costs? a. I didn't notice the fees and costs; b. The fees for one fund mainly went up while the other stayed about the same c. The fees for one fund mainly went down while the other stayed about the same; d. The fees for both funds stayed about the same. (Correct answer varied by Treatment and condition.)

C7b. (Treatments 2-7) In the previous part of the survey when you compared the two funds, what did you notice about returns? a. I didn't notice the returns; *b. The returns for one fund started lower but then rose higher compared with the other fund;* c. The returns for both funds were about the same.

C8. The returns information on the table (returns and target returns): a. Have fees and costs still included; *b. Have fees and costs deducted*; c. Have fees deducted but administration costs included.

Financial Literacy

FL 1. Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? a*. More than $102*; b. Exactly $102; c. Less than $102; d. Do not know.

FL 2. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account? a. More than today; b. Exactly the same; *c. Less than today*; d. Do not know.

FL 3. Buying shares in a single company usually provides a safer return than buying units in a managed share fund. a. True; *b. False*; c. Do not know

Numeracy

N1 Imagine that we rolled a fair, six-sided die 1,000 times. Out of 1,000 rolls, how many times do you think the die would come up even? *500*

N2 In a lottery, the chance of winning a $500 prize is 1%. What is your best guess of how many people would win the prize if 1,000 people each buy a single ticket in the lottery? *10*

N3 In a raffle, the chance of winning a car is 1 in 1,000. What per cent of tickets in the raffle win a car? *0.1*

Superannuation (retirement plan) literacy

S1 Employers are required to pay superannuation contributions into the superannuation accounts of most of their employees. Is there a mandatory minimum employer contribution rate? *a. Yes*; b. No; c. Do not know.

S2 What % of an employee's salary is an employer currently required to contribute to superannuation?

S3 If you haven't chosen a superannuation fund your employer must pay your superannuation into a superannuation fund that offers MySuper. *a. True*; b. False; c. Do not know.

S4 Superannuation funds deduct fees from members' superannuation accounts. *a. True*; b. False; c. Do not know.

S5 Is the following statement true or false? "For most people, superannuation is taxed at a higher rate than a similar investment outside superannuation". a. True; *b. False*; c. Do not know.

S6 Can people make voluntary contributions to their superannuation accounts? *a. Yes*; b. No; c. Do not know.

S7 Are there any limits to the amount of these voluntary contributions? *a. Yes*; b. No; c. Do not know.

S8 If your superannuation account is invested in a "balanced" investment option, this means that it is invested exclusively in safe assets such as savings accounts, cash management accounts and term deposits. a. True; *b. False*; c. Do not know.

S9 You are allowed to borrow from your superannuation account. a. True; *b. False*; c. Do not know.

S10 If you have any superannuation, you will not qualify for the Age Pension. a. True; *b. False*; c. Do not know.

S11 Do you know the minimum age at which you can spend the money in your superannuation account? a. Yes; b. No; c. Do not know.

S12 The minimum age at which I can spend money in my superannuation account is: (Open question). *The correct answer depends on participant age and varies between 55 and 60 years.*