Journal of Economic Behavior & Organization 121 (2016) 60–76

Contents lists available at ScienceDirect

Journal of Economic Behavior & Organization

journal homepage: www.elsevier.com/locate/jebo

As easy as pie: How retirement savers use prescribed investment disclosures

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ARTICLE INFO

Article history:
Received 23 September 2013
Received in revised form 25 October 2015
Accepted 29 October 2015
Available online 6 November 2015

JEL classification:
G02
G11
D14
C91

Keywords:
Consumer finance
Diversification
Heuristics
Pensions
Choice experiment

ABSTRACT

Using a laboratory experiment, we study how retirement plan members choose investment options using five information items prescribed by regulators. We found that asset allocation information for pre-mixed investment options – normally presented as a pie chart or a table – had the largest impact on choices. Participants preferred investment options with more, and more evenly weighted, asset class allocations. This novel application of a $1/n$ strategy differs significantly from the existing findings of naïve diversification in 'mix-it-yourself' conditions where participants spread resources evenly across funds or categories. When asset allocation information was included, coefficients on return and risk information had unexpected signs, but when asset allocation was omitted, participants preferred options with high Sharpe ratios. We also demonstrate that none of the five prescribed information items was significant in explaining individual choices of more than 35% of participants. These findings highlight that information contained in prescribed investment disclosures might not be used in the manner intended by the regulator. The results raise important methodological questions about the way 'user-friendly' information prescribed by regulators is validated before being legislated.

1. Introduction

Many retirement plans offer members menus of investment options for their savings. Standard models of investment choice assume that individuals will allocate their wealth efficiently by using relevant information on expected return, risk and covariation, while ignoring unimportant information and variations in framing. By contrast, simply observing these decisions shows that allocations are not neutral to choice architecture (Benartzi and Thaler, 2007). In particular, when confronted with large, complex, non-comparable information sets, investment choices can degenerate to ad-hoc diversification strategies (Benartzi and Thaler, 2001; Huberman and Jiang, 2006; Brown et al., 2007; Morrin et al., 2012; Agnew et al., 2011) or reliance on defaults (Madrian and Shea, 2001; Carroll et al., 2009; Choi et al., 2009; Beshears et al., 2008, 2013).

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http://dx.doi.org/10.1016/j.jebo.2015.10.020
0167-2681/

Concerned about the impact of financial mistakes (Calvet et al., 2007) and possible manipulation (Pool et al., 2015) in a setting of increasingly complex financial products, regulators have begun to specify the content and presentation of many types of financial disclosures, including retirement saving investment menus (Kozup et al., 2008; Beshears et al., 2011; Navarro-Martinez et al., 2011). Here we focus on the Australian Securities and Investments Commission's (ASIC) introduction of a standard format for retirement plan investment disclosures (Commonwealth of Australia, 2011). The Australian regulator has specified both length and content, replacing long, complicated and non-standardized prospectuses. Investment disclosures must include an option label and a textual description of the strategy, as well as a real-returns target, a strategic asset allocation and a risk description. By stipulating these details, regulators aimed to help plan members locate and understand all necessary information for selecting a retirement savings investment (Treasury, 2010).

Recent studies suggest that "improvements" to disclosures or even direct guidance does not necessarily lead to improved choices (Beshears et al., 2011; Hung et al., 2010; Navarro-Martinez et al., 2011; Agarwal et al., 2014). Just as expanding a choice set does not necessarily make consumers better off (Benartzi and Thaler, 2001; Brown et al., 2007; Scheibehenne et al., 2010), simplified or "improved" disclosures may have unintended consequences. This raises critical questions about how retirement plan members use the prescribed disclosure format, whether the specific information items assist their decision process, and whether the outcomes of these decisions align with the regulator's intentions. Since many of the presentation formats we tested in our experiment are common to financial prospectuses, our results have implications for financial product disclosure regulations internationally, and for the framing and marketing of many investment products.

Specifically, we conducted four incentivized laboratory treatments to better understand university retirement plan members' and students' choice of investment options when using the prescribed investment disclosure. Notably, there was no standard format for retirement plan investment disclosures before 2012, so documents came in various forms and often ran to several hundred pages. As a result, we cannot directly compare responses of plan members to the new format with responses to an older benchmark, but we can study the relative impact of the prescribed items and formats in the new document.

Our study makes several contributions. First, we measure the marginal impact of each item in the simplified disclosure format on investment option preferences, comparing it with the sign and size predicted by standard finance theory. This allows us to identify the items in the shorter disclosure format that play a greater or lesser role in choices, and whether these effects are as expected. Second, we estimate these impacts for both the whole sample of experimental subjects and for each individual, giving a detailed view of the cross-section of responses. Third, since we found in our initial two treatments that subjects are sensitive to asset-allocation information at the expense of risk and return information, we conducted two further treatments, one where we changed the way asset allocation information is displayed and another where the allocation information is removed altogether. Fourth, the finding that information contained in prescribed investment disclosures may not be used in the manner intended by the regulator, poses, in our view, important methodological questions about the way supposedly user-friendly information prescribed by regulators is validated before implementation.

Results show that investment decisions are not immune to choice architecture. This is perhaps not surprising since even well-informed investors can be influenced by unimportant information. For example, Choi et al. (2010) found that experimental subjects from a pool of Harvard and Wharton MBA students put high weight on irrelevant historical returns and failed to minimize fees when making an allocation across index mutual funds. Here we go further by demonstrating that many individuals overlook important information or find it difficult to combine several information items. In particular, we find that expected return information and simplified risk information appear to be dominated by asset allocation information for the majority of subjects. This occurs despite the substantial attention paid to the development of an appropriate summary risk measure by industry and the regulators (APRA, 2010; FSC and ASFA, 2011; ASIC, 2012a,b). However, when that (prescribed) asset-allocation information is omitted, subjects tend to revert to conventional risk-return trade-offs, choosing options with higher Sharpe ratios.[1]

In their survey of heuristics and biases in retirement savings, Benartzi and Thaler (2007, p. 90) mention that "[t]he diversification heuristic does not seem to apply when people pick among premixed funds, as the naïve investor perceives all the funds to be equally diversified." By contrast, we find that the most predictive disclosure feature for people's decisions is the asset allocation information for each investment option. Specifically, when they are given information about the strategic asset allocations of options, participants' choices appear to be predominantly driven by a preference for pre-mixed options which are low in concentration and close-to-evenly spread between asset classes, having a number of approximately equally sized segments of "pie". This result holds whether the allocation information is shown as a pie chart or a table and suggests that the tendency to adopt naïve ($1/n$) diversification strategies is highly prevalent. It also extends beyond situations of "mix-it-yourself" portfolios (e.g., Benartzi and Thaler, 2001) to our novel setting in which all choices are made from pre-mixed investment options.[2] Most subjects apparently use a naïve diversification strategy in preference to making a risk-return trade-off until the allocation information is omitted.

[1] Our results resemble those of Ehm et al. (2014) who show that subjects in investment experiments fail to account for different volatilities of risky assets, while maintaining a simple proportional allocation between risky and risk-free assets. See also Ehm et al. (2015).

[2] Using administrative data from several providers, Gerrans and Yap (2013) show that around 36% of investment choices by Australian retirement saving fund members were consistent with a conditional $1/n$ rule.