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ARC Programme - Behavioural Aspects of Institutional Investment Decision-Making

Professional investors make better mutual fund selections

by Dr Leonardo Weiss-Cohen

Professor Peter Ayton

Professor Iain Clacher

Professor Volker Thoma

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Professional investors make better mutual fund selections

Leonardo Weiss-Cohen

University of Leeds

Peter Ayton

City University of London

Iain Clacher

University of Leeds

Volker Thoma

University of East London

Abstract

When choosing mutual funds, investors tend to inefficiently chase past performance, choosing the fund that recently performed the best over its peers, regardless of fees charged. However, individual funds cannot consistently return better-than-average performance, as superior performance today is not correlated with superior performance tomorrow. As a result, investors might end up choosing expensive funds, and overpay for their investments. Fees charged by mutual funds can severely deteriorate returns, especially in the long time horizon in which pension schemes invest. Excessive investment cost is a current concern in the pension industry. We tested a unique group of individuals, pension professionals, on their mutual fund selection behaviour. We observed that the higher financial sophistication and expertise of pension professionals benefited their choices: pension professionals tend to choose the cheapest mutual fund, regardless of past performance. We discuss the implications towards cost reductions in pension scheme investments.

Introduction

Mutual funds provide a practical and convenient way to invest in stocks and bonds, and by pooling the assets of many investors together, to do so in an efficient way. Globally, mutual funds reached an aggregate of US\$46 trillion of assets under management (AUM) at year-end 2018, and for providing their services, mutual fund managers charge fees, which are on average equal to 0.55% of AUM per year (Investment Company Institute, 2019).

Despite the large sums of money being paid as mutual funds fees every year, investors mostly disregard costs when choosing funds (Choi, Laibson, & Madrian, 2010; Fisch & Wilkinson-Ryan, 2014). Instead, investors choose the funds with the best past performance (Barber, Odean, & Zheng, 2005; Pontari, Stanaland, & Smythe, 2009; Wilcox, 2003). Chasing past performance is a poor fund selection strategy, as long-term analyses have confirmed that mutual funds cannot consistently return better-than-average performance (Carhart, 1997; Jain & Wu, 2000; Malkiel, 1995), with any individual over-performance being mostly attributed to luck rather than skill, and as such, unlikely to be sustained in the long-term (Mercer, Palmiter, & Taha, 2010). As the mandated regulatory disclaimer often says, "Past performance does not guarantee future results." Research has found that such mandated disclaimers do not help participants to minimize mutual fund fees, as it is very weakly worded, and a stronger message is needed in order to be effective (Fisch & Wilkinson-Ryan, 2014; Mauck & Salzsieder, 2017; Mercer et al., 2010). The most effective alternative statement thus-far appears to be one which directly emphasizes the benefits of investing in low-fee funds (Newall & Parker, 2018).

Fund managers tend to exploit this focus on past performance by prominently advertising their top performing high-fee funds to attract clients (Jain & Wu, 2000; Koehler & Mercer, 2009). As a result, investors tend to overpay for their investments (Fisch, 2010; Houge & Wellman, 2007). In fact, cheaper funds on average tend to provide better performance in the long-run, as they are not burdened by the high recurring costs which can deteriorate fund returns (Carhart, 1997; Haslem, Baker, & Smith, 2008). The ideal strategy therefore is for investors to choose the fund with the lowest fees within a given asset class.

Extant research on mutual fund selection has so far focused on individual retail investors, ignoring more sophisticated investors, such as pension professionals. It is reasonable to expect that professionals working in the pension industry are more financially sophisticated than general retail investors (Menkhoff, Schmeling, & Schmidt, 2009). Pension professionals work in the industry, have access to information and training, and have more direct experience in financial markets. Studies have confirmed that pension scheme trustees are better educated and have higher financial literacy than retail investors, and this is especially true of professional trustees (Clark, Caerlewy-Smith, & Marshall, 2007). While sophistication does not inoculate an individual against behavioural biases (West, Meserve, & Stanovich, 2012), a recent study has shown how retail investors with higher financial literacy and experience in the stock markets performed better in a mutual fund selection task, as they chose the cheapest fund more often than chasing past performance (Weiss-Cohen, Newall, & Ayton, 2019). If this is the case, then professionals working in the pension industry who are considerably more financially sophisticated should be better at choosing mutual funds than retail investors.

Costs and fees are now seen as one of the most important issues in the pension industry.¹ As a result of the compounding nature of costs and fees in asset management, high fees can significantly erode pension fund performance, due to the long time horizon over which pensions operate, and the fact that fees accumulate over many decades. Pension funds spend millions in mutual funds fees every year. The UK Pensions Regulator's survey on pension scheme costs found that investment costs can be as high as £314 per scheme member per year for the smallest schemes, going down to £75 in very large schemes. Over a typical 40-year life of a pension scheme, this can erode tens of thousands of pounds from an individual's pension pot. In order to protect pension pots from unnecessary spending, pension

¹ See for example the Financial Conduct Authority's Asset Management Market Review and the subsequent work of the Institutional Disclosure Working Group that followed this investigation.

schemes in the UK are required to identify the levels of the pension scheme charges and transaction costs incurred by the member on each investment option, and provide an illustrative example of the cumulative effect of those charges and costs over time.² Given how crucial fees are to pension outcomes, our research aims to explore if sophisticated pension professionals optimally minimize fees or inefficiently chase past performance when choosing mutual funds. This is a significant issue to examine given the role that many pension professionals have in giving advice on investment to pension fund trustees.

Methods

Our experiment explored if past performance or management fees influence investment decisions when choosing between mutual funds, across two different groups: retail investors and pension professionals. We asked participants to choose between two funds, one low-fee fund and one high-fee fund, for 60 simulated months based on real historical market returns. Apart from the difference in fees, the returns of the two funds were generated dynamically by the same underlying stochastic process: the index returns plus a noise component. Because the noise had a mean of zero, both funds had the same expected gross performance (before fees) in the long run, therefore choosing the cheapest fund was the best strategy.

Participants

In total, we collected data from 276 individuals split into two groups:

Retail investors. Responses from 200 individual retail investors were captured using Prolific Academic. We filtered participants according to a pre-screening question captured by Prolific Academic: "Have you ever made investments (either personal or through your employment) in the common stock or shares of a company?" We only allowed participants who had answered "yes" to that question. These participants were financially compensated for their time, receiving a fixed amount of £2 plus a variable financial bonus related to their performance in the task, with an average bonus of £3.5.

Pension professionals. We also captured data from 63 pension professionals through the marketing efforts of Professional Pensions, a weekly industry publication targeted at professionals who work in the pensions industry, and through the Institute and Faculty of Actuaries, a professional body which represents actuaries in the United Kingdom. These participants included pension professionals such as trustees, investment consultants, advisers and analysts. These participants were not directly compensated for their time, but instead we donated to a charity of their choice, and the donation was based on their performance during the task, with an average donation of £2.8.

Design

Participants were asked to choose between a low-fee fund and a high-fee fund over 60 consecutive monthly periods, based on recent actual market returns. The annual management fees of the funds were 0.5% and 1.5% respectively. These were chosen to be close to the asset-weighted average and simple average of actively managed mutual funds according to the Investment Company Institute (2019). Funds were labelled simply as Fund A and Fund B, and the positioning and labelling of the two funds on screen was randomized. The management fees for each fund were always on display underneath each fund. Before selections, participants were shown the typical regulatory mandated disclaimer: "Past performance does not guarantee future results."

Apart from the management fees displayed under each fund, the only additional information provided was the returns at each period. The returns for both funds were shown after each selection made by participants. The returns for each fund were calculated dynamically, based on the monthly S&P 500

² Department for Work and Pension's "Reporting costs, charges and other information: guidance for trustees and managers of occupational pension schemes" published September 2018.

returns for the period of 60 months from December 2013 to November 2018. For each fund, we added a stochastically generated normally distributed noise component, with mean zero and standard deviation of 2.5%, and deducted the relevant fees. At each trial and for each fund, the noise component was generated independently, meaning that each fund could deviate away from the S&P 500 returns for that month, creating variations in fund performance, which we expected participants to chase if they focused on performance rather than costs. While there were stochastic variations in each trial, in the long run, the only long-term difference between the two funds was the difference in fees, because the mean of the noise component was zero. The best fund to select was therefore the low-fee fund. The 2.5% noise used matched the 50th percentile of tracking errors of non-index funds from Petajisto (2013). The returns from the funds chosen by the participants were accumulated and transformed into their bonus payment (retail investors) or charity donation (pension professionals).

Before participants made their first selection, they were shown a historical 12-month return for each fund. These returns were calculated using the actual monthly S&P 500 returns for the 12-month period from December 2012 to November 2013 and calculated in the same way as the individual monthly returns used in all subsequent trials in the experiment. These historical returns were not added to their accumulated total.

After completing the fund selection task, participants were shown the 13-question financial literacy questionnaire from Fernandes, Lynch, and Netemeyer (2014), although one question was removed, because it was specific to regulations in the United States. The maximum score for the test was therefore 12. As expected, retail investors scored significantly lower than pension professionals in the financial literacy test, with the latter group achieving almost a perfect score on average (Retail=8.73, Professional=11.30, $t(232.6)=11.22$, $p<.001$). Overall, the task took 12.8 minutes to complete.

Results

The dependent variable was the frequency of selections from the low-fee fund: the higher the number of selections from the low-fee fund the better. This binominal variable was analysed with a general repeated-measures mixed-effects ANOVA. The main fixed factor was the type of investor: retail investors or pension professionals. There was also a covariate for the difference in historical returns between the two funds. The model also included a random intercept for each participant.

There was a significant difference in selections from low-fee fund according to type of investor ($\chi^2(1)=22.81$, $p<.001$). Pension professionals chose the low-fee fund much more frequently than retail investors (Professional: $M=96.1\%$, $SE=1.4\%$; Retail: 76.6% , $SE=3.6\%$).

There was a significant influence of return difference in funds ($b=5.23$, $SE=0.88$, $\chi^2(1)=100.85$, $p<.001$). Participants chose the low-fee fund more often when the low-fee fund had past returns that were higher than the high-fee fund, and the probability of choosing the low-fee fund was correlated with the magnitude of the difference.

There was no significant interaction between the two factors ($\chi^2(1)=2.63$, $p=.10$). Retail investors chased past performance, and so the slope was much steeper ($b=6.66$, $SE=0.67$), as they chose the fund that performed the best in the previous trial. Pension professionals did not chase past performance as much and almost always chose the low-fee fund, regardless of past performance, as shown by the relatively flat relationship between past performance and selection ($b=3.81$, $SE=1.62$) and represented graphically on Figure 1.

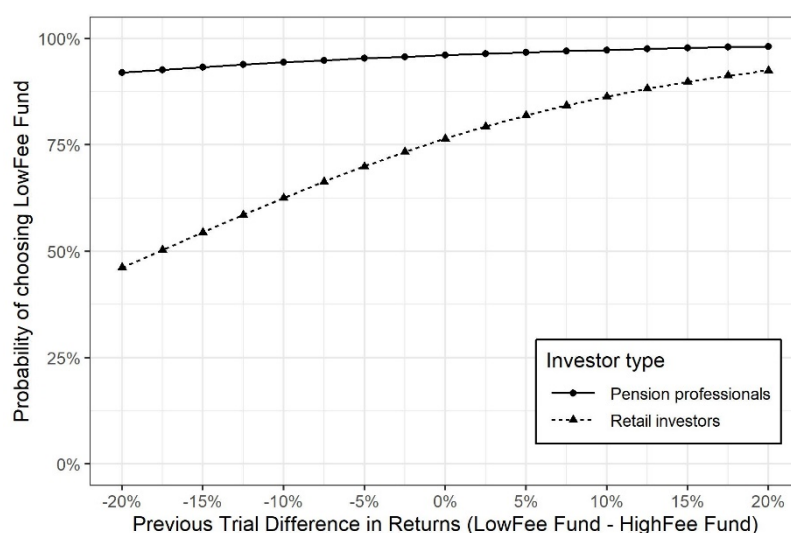


Figure 1. Experimental results. Relationship between past returns and selection from low-fee fund. Pension professionals almost exclusively chose the low-fee fund, while retail investors were influenced by past returns, choosing more often the fund that performed better in the previous trial. The differences shown were calculated as returns from the low-fee fund minus the high-fee fund. Positive values equate to the low-fee fund outperforming the high-fee fund by that amount.

General discussion

Our research shows that pension professionals are significantly better at choosing mutual funds than retail investors. We have extended previous research showing that financial literacy and experience moderate selections of mutual funds (Weiss-Cohen et al., 2019), by observing that the higher financial sophistication of professional pensions help them choose the cheapest fund almost exclusively, regardless of past fund performance. This is the ideal strategy for fee minimization and performance maximization over time, as shown by research that cheapest fees outperform expensive ones in the long-run (Carhart, 1997; Haslem et al., 2008). In contrast, retail investors performed much worse, chasing past performance and choosing the fund with the highest past returns more often, even when this led them to select the more expensive fund. As a result of their selections over the task, retail investors would have paid 34% more fees than pension professionals.

Given the recent regulatory pressure in the UK for pension schemes to keep costs under control, it is important to understand how fundamental the costs and fees of asset management are when defining an investment strategy. Past research has shown that paying higher fees in funds does not bring any additional benefit: more expensive funds actually provide worse financial performance (Carhart, 1997; Haslem et al., 2008), and does not offer any additional non-portfolio advantages, such as customer service (Choi et al., 2010; Elton, Gruber, & Busse, 2004). We have shown that more financially sophisticated individuals, such as pension professionals, focus more on cost than the past performance funds, highlighting the importance of the expertise that such professionals have. It is therefore essential that this expertise is used arguably more often than it is, when looking at the significant amount of pension fund assets that are potentially chasing past performance.

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Actuarial Research Centre

Institute and Faculty
of Actuaries

Beijing

14F China World Office 1 · 1 Jianwai Avenue · Beijing · China 100004
Tel: +86 (10) 6535 0248

Edinburgh

Level 2 · Exchange Crescent · 7 Conference Square · Edinburgh · EH3 8RA
Tel: +44 (0) 131 240 1300 · Fax: +44 (0) 131 240 1313

Hong Kong

1803 Tower One · Lippo Centre · 89 Queensway · Hong Kong
Tel: +852 2147 9418

London (registered office)

7th Floor · Holborn Gate · 326-330 High Holborn · London · WC1V 7PP
Tel: +44 (0) 20 7632 2100 · Fax: +44 (0) 20 7632 2111

Oxford

1st Floor · Park Central · 40/41 Park End Street · Oxford · OX1 1JD
Tel: +44 (0) 1865 268 200 · Fax: +44 (0) 1865 268 211

Singapore

163 Tras Street · #07-05 Lian Huat Building · Singapore 079024
Tel: +65 6906 0889

www.actuaries.org.uk

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