

Does Changing How Fees Are Displayed Nudge Investors Away from Overpriced Index EFTs?: Evidence from Two Experiments

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Index ETFs make up a substantial part of financial markets, with a market size that quadrupled since 2014 and estimated now at 2.5 trillion dollars. Yet this highly active and liquid market contains persistent price anomalies – in 2014 unnecessary fees approached approximately \$7 billion.

Most index ETFs track benchmarks such as the S&P 500 and are indistinguishable from one another in terms of performance. From a conventional economics perspective, price heterogeneity among almost-perfect substitute commodities should be non-existent or only negligible. Yet, the price variance (costs varying upwards of 10x) among these near identical index funds is growing (Cooper et al. 2016).

We tested different cognitive mechanisms and heuristics (price insensitivity, performance chasing, price-as-quality, naïve diversification) across two experiments to account for this enduring anomaly.

The first experiment was a 2 x 2 factorial between-subject design with 1,200 respondents from Amazon Mechanical Turk. Participants were asked to allocate a hypothetical \$10,000 across three real S&P 500 ETF index funds. The funds were essentially identical except costs. One ETF was expensive (an expense ratio of 0.40%) whereas the remaining two were less costly (expense ratios of 0.09% and 0.04%). The ETFs were all indistinguishable in terms of their performance, with an average correlation greater than 0.99.

In the first experiment, we experimentally manipulated two factors – fee format and the graphical representation of performance. Participants were randomly selected to view fees expressed either in absolute (dollars) terms or in relative (percentages) term. There is an ongoing conversation in the finance industry (e.g. Jack Bogle of Vanguard) and in policy bodies (e.g. the Security and Exchange Commission) that displaying fees in dollars would modulate price insensitivity because it makes the cost of investing more concrete and would nudge people away from overpriced investment vehicles. We tested this conjecture.

The second factor examines the effects of visual representation, comparing performance displayed as line graphs (growth of \$10,000) with bar charts (prospectus year-by-year returns). Previous studies (e.g. Shah and Hoeffner 2002) recommended line graphs over bar charts when depicting trends but could potentially encourage performance chasing and induce people to overly attend to minor differences in historical prices.

The results show that investors are generally insensitive to fees but there was a small effect for preferences toward the most expensive ETF, consistent with “price as a quality signal” (Wolinsky, 1983). This was unanticipated, and the second experiment is designed in part to verify this finding through replication.

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In the second incentivized experiment, we used an expanded 2 x 2 x 3 between-subjects design to disentangle price-as-quality signal from naïve diversification (Benartzi and Thaler, 2001) using a large nationally representative sample administered by a top-tier professional firm. We replicated the first study and made two additional adjustments to the experimental conditions. The first is adding allocation constraints as a condition – participants were randomly selected to either confine their allocation to only one ETF or were free to allocate across all three ETFs. This condition is designed to detect fee sensitivity by negating the potential effects of naïve diversification. The second adjustment including a third way to display fees, in addition to percentages and dollars like before – participants were randomly assigned into a condition where fees are shown as the accumulated cost over 20 years. This kind of scaling may make the long-term effects of high fees clearer and thus nudge decision-makers away from pricier alternatives. Data collection is ongoing for the second experiment and we will present results from both experiments.

Understanding the cognitive mechanisms that allow overpriced index funds to persist is useful to inform better policy to mitigate this unproductive transfer of wealth.