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Do Mutual Fund Investors Care About Fees?

To what extent do fees affect the choices that investors make regarding mutual funds? How much attention do investors pay to these fees, assuming that they even understand them? What information regarding mutual fund service costs do investors value? Are expensive fees justified in terms of the funds' returns?

These are some of the provocative questions explored in experiments conducted by **James Choi**, **David Laibson**, and **Brigitte Madrian** as reported in **Why Does The Law of One Price Fail? An Experiment on Index Mutual Funds** (NBER Working Paper No. 12261).

The researchers' principal experiment, conducted in 2005, gave subjects four S&P 500 index fund prospectuses and asked them to allocate $10,000 among these funds. Because these were all invested to equal the behavior of the S&P 500, a wise investor would choose the fund with the lowest fees since that would yield the best performance. After making their allocation decisions, the subjects completed a debriefing questionnaire that asked them to rank the importance of various factors on their investment choices. To create incentives so that the subjects would consider their allocation decisions carefully, the researchers randomly selected subjects to receive the next year's return from their hypothetical portfolio (if that return was positive).

The experiment divided participants into three groups. The control group has only a prospectus of each of the funds. Subjects in the second group received information on the funds' fees while the third group received information on the funds' past returns.

The subjects in the experiment were a mix of Harvard and University of Pennsylvania undergraduates and University of Pennsylvania MBA students. The undergraduates and MBAs reported average combined SAT scores in the 99th and 98th percentiles, respectively, suggesting that these subjects are better equipped than most investors to make these types of investment decisions.

Subjects in the control group — those who received only the four mutual fund prospectuses — chose portfolios with an average fee that was only slightly below the average fee of the four index funds. Over 95 percent of control group subjects failed to minimize fees by allocating all of their money to the lowest-cost fund.

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Giving subjects a fee summary sheet — in addition to the four prospectuses — caused investments to shift toward lower-cost index funds relative to the choices of the control subjects who received only the fund prospectuses. However, over 80 percent of the group given information on fees still failed to minimize index fund fees.

In the third group, the researchers gave subjects the four mutual fund prospectuses and the returns summary sheet, which highlighted each fund's annualized returns since inception. Because the funds were started on different dates, "annualized returns since inception" largely reflects the historical performance of the S&P 500 since a fund's inception date and thus is not informative in predicting the four funds' future returns. By design, the researchers selected funds for the experiment such that annualized returns since inception were positively correlated with fees. Chasing returns since inception thus would lower expected future returns. The researchers observed this returns-chasing behavior: portfolio fees are higher in the group given information on past returns since inception than in the control group.

Choi, Laibson, and Madrian find that many of the subjects did not realize the importance of fees in making their allocation decision. Even when subjects did realize the importance of fees — ranking fees as important in the debriefing questionnaire — they often were not able to identify the fee information in the prospectus or were nonetheless swayed by other uninformative measures, such as returns since inception. When the fee information was made transparent by giving subjects a fee summary sheet, subjects still did not invest in the lowest-fee fund. The researchers find similar results when subjects were given a returns-summary sheet. In this group, subjects chased the salient, irrelevant past returns and lowered their future expected returns.

Interestingly, the researchers find that those subjects who chose higher-fee portfolios seemed to know that they were making a mistake. In the debriefing survey, these subjects were less confident that they were mak-

ing the best allocation decision.

Choi, Laibson, and Madrian also briefly discuss a second experiment similar to the first experiment except that the four funds considered were actively managed small cap funds. In this experiment, there was only a fees-summary treatment condition and a control condition. The researchers find similar results to the first experiment: providing the fees-summary sheet decreased the average fees paid, but subjects still paid fees far above the minimum.

Choi, Laibson, and Madrian believe that their findings have several implications. First, they say, it is wrong to assume that investors are sufficiently alert to the significance of fund fees. The researchers suggest that it may be useful to provide incentives for intermediaries, such as 401(k) plan providers and state 529 college-savings plan administrators, to respond to mutual fund fees, because many individuals are not doing so themselves. Further, it seems that the current prominent disclosure of historical returns information may inhibit wise portfolio choice.

Choi, Laibson, and Madrian say that what matters is not only what information must be disclosed, but also how it is disclosed. Current Security and Exchange Commission regulations on fee disclosure, they say, may not be having the desired result. If important information, such as a fund's expense ratio and load, were required to be more transparent rather than buried in a prospectus, the researchers believe that there would be an aggregate reallocation of investment in low-cost funds. This, they add, would likely provide an impetus for high-fee funds to lower their fees.

— Matt Nesvisky

Why High Earners Work Longer Hours

During most of the 1900s, the hours of work declined for most American men. But around 1970, the share of employed men regularly working more than 50 hours per week began to increase. In fact, the share of employed, 25-to-64-year-old men who usually work 50 or more hours per week on their main job rose from 14.7 percent in 1980 to 18.5 percent in 2001.

This shift was especially pronounced among highly educated, high-wage, salaried, and older men. For college-educated men, the proportion working 50 hours or more climbed from 22.2 percent to 30.5 percent in these two decades. Between 1979 and 2002, the frequency of long work hours increased by 14.4 percentage points among the top quintile of wage earners, but fell by 6.7 percentage points in the lowest quintile. There was no increase at all in work hours among high-school dropouts.

As a result, there has been a reversal in the relationship between wages and hours. In 1983, the most poorly paid 20 percent of workers were more likely to put in long work hours than the top paid 20 percent. By 2002, the best-paid 20 percent were twice as likely to work long hours as the bottom 20 percent. In other words, the prosperous are more likely to be at work more than those earning little. This trend has been a puzzle for some economists.

In **The Expanding Workweek? Understanding Trends in Long Work Hours Among U.S. Men, 1979–2004** (NBER Working Paper No. 11895), **Peter Kuhn** and **Fernando Lozano** attempt to explain why the century-long trend of shrinking work hours — probably a reflection of rising prosperity — reversed around 1970, essentially for the first time except during World War II. The authors also try to reconcile the trend towards longer workweeks for full-time workers with the fact of overall declining participation of men in the labor force. However, as Kuhn and Lozano note, highly educated men were not likely to leave the work force, but rather were much more likely to work longer hours; while high-school dropouts were more often leaving the work force or, if still at a job, working fewer hours.

After testing various possible causes for these trends, Kuhn and Lozano conclude that many salaried men work longer because of an increase in "marginal incentives" to supply hours beyond the standard 40 per week. These workers don't immediately get overtime pay for the "extra" hours. But over a longer time period, they get a substantial reward in the possibility of earning a bonus or a raise within their current position, or they may win a promotion to a better job, or simply signal to the labor market that they are productive and ambitious and thus suitable for a better job in another firm. Alternatively, the longer hours may enable them to acquire extra skills or to establish networks and contacts that could be rewarded in their current firm or in another one. In addition, the long hours may enhance their prospect of keeping their current job if the firm decides to lay off workers in the future. Studies suggest that perceived job insecurity has risen substantially among highly educated workers.

As evidence, the authors note that an extra hour beyond 40/week was associated with a 1.2 percent increase in earnings for male workers overall between 1983 and 1985, and with more than a 2 percent increase by 2000–2. For salaried workers, the man putting in 55 hours per week in the early 1980s earned a weekly salary of 10.5 percent more than an equivalent worker putting in normal hours. By the early twenty-first century, that gap had more than doubled, to 24.5 percent. Such pay gaps, or "long-hours premiums," were accommodated by a markedly wider dispersion of earnings within an occupation between 1983 and 2002.

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In their research, the authors are able to rule out several factors as explanations for this change in work behavior. It is not the result of changing techniques in the Current Population Survey, a survey that provides the statistical base for their study. It is not a purely cyclical phenomenon. Nor is it attributable to a changing mix of occupations and industries in the male labor force. It cannot be attributed

to rising education levels, an aging workforce, or decreasing unionization. Nor can it be explained by the declining economic fortunes of American men over the past two decades. Real earnings for 40-hour weeks remained essentially flat among hourly male workers in the years between 1983–5 and 2000–2, and increased only slightly for salaried workers. Nor, the authors find, is the change a consequence of increased self-employment. And, it is not related to an increase in multiple jobholding, or to advances in communication technology (such as the Internet) that facilitate additional work from home.

Rather, the authors note, U.S. firms have changed their methods of compensation for skilled, salaried workers over the past quarter century. It could be that longer-than-normal workweeks help firms to produce better products and services in "winner-take-all" type of markets.

— David R. Francis

Comparing Government Healthcare Costs in Ten OECD Countries

In recent decades, government healthcare spending in industrialized countries has grown much faster than GDP. Although researchers have investigated a number of contributing factors, including improvements in medical technology, population aging, medical inefficiency, waste, and unhealthy behavior, relatively little is known about how much each factor contributes to overall cost growth. In **Who's Going Broke? Comparing Healthcare Costs in Ten OECD Countries** (NBER Working Paper No. 11833), coauthors **Laurence Kotlikoff** and **Christian Hagist** conclude that the expansion of government benefit levels — defined as average inflation-adjusted government healthcare expenditures on people at a given age — explains three quarters of the growth in public healthcare expenditures since 1970.

On average, inflation-adjusted government expenditures on healthcare in the ten countries that are the focus of this paper have grown by nearly 5 percent per year since 1970. Absent any growth in government benefit levels, demographic change would have caused government healthcare spending to grow by 1.23 percent per year. The United States had the highest annual government healthcare spending growth rate over the period, 6.23 percent per year, or twice its average GDP growth rate of 3.1 percent. Had U.S. government benefit levels not grown, U.S. government healthcare spending would have grown at half the rate of U.S. GDP.

The data on benefit growth suggest that healthcare is a "luxury good." As income rises, governments, acting on behalf of the public, spend proportionately more on healthcare. The authors estimate the percentage change in government healthcare spending for a given percentage change in per capita GDP growth: they find that rates range from 1.1 in Canada to 2.3 in the United States, with a ten-country average of 1.7.

Assuming that benefit levels grow at historic rates for the next 40 years and then grow at the same rate as per capita GDP and assuming a 7 percent discount rate, the United States, Norway, and Germany are slated to spend around 12 percent of their future output on government health spending. At a 3 percent discount rate, the U.S. government will spend around 19 percent of future GDP on health, followed by Norway at 17 percent, and Japan at 13 percent.

"The expansion of government benefit levels -- defined as average inflation-adjusted government healthcare expenditures on people at a given age -- explains three quarters of the growth in public healthcare expenditures since 1970."

Profiles of government health spending by age show significant variability across countries. Per capita government healthcare expenditures on those over age 74 are twice as high as on people 50-to-64-years old in Austria, Germany, Spain, and Sweden. In the United States, government expenditures on the elderly are 8 to 12 times higher than on those aged 50 to 64. In Japan, Norway, the United Kingdom, Canada, and Australia, the relative spending factors range from 4 to 8.

Assuming that benefits will continue to grow at historic rates for the next 20, 40, or 60 years, Kotlikoff and Hagist "age" the population to determine the present value of projected government health spending as a fraction of the present value of projected GDP.

Because "American's elderly are politically very well organized, and each cohort of retirees has, since the 1950s, used its political power to extract ever greater transfers from contemporaneous workers," the authors conclude that the fiscal fallout of expanding healthcare benefits is likely to be "particularly severe" for the United States, imposing "a huge additional fiscal burden on the American public. Norway is in similar shape in terms of its healthcare costs, but Norway does not have to bear the burden of paying for a large military. In addition, it has significant oil wealth to help cover its costs."

— Linda Gorman

The Law and Economics of Self-Dealing

Investor expropriation — also known as self-dealing or tunneling — takes such forms as excessive executive compensation and perquisites, transfer pricing, insider trading, self-serving transactions, and outright theft. In **The Law and Economics of Self-Dealing** (NBER Working Paper No. 11883) by **Simeon Djankov, Rafael LaPorta, Florencio Lopez-de-Silanes,** and **Andrei Shleifer,** the focus is on

the kinds of cases in which controllers of companies make deals that may benefit them at the expense of other investors, but in which — unlike in the Enron and Parmalat scandals — the controllers observe the laws regarding disclosure and approval procedures. One of the primary questions the researchers ask is: if a controlling shareholder wants to enrich himself without breaking the law, how difficult is it for minority shareholders either to thwart the deal or, if it is carried out, to recover damages?

In order to determine which nations best protect minority shareholders from such abuses — and to ascertain how those protections affect a nation's financial development — the researchers create a hypothetical scenario in which a corporate officer who owns large portions of two companies engages in a self-dealing sales transaction between the firms that benefits the officer via an inflated payment. They presented this scenario to members of Lex Mundi, an association of international law firms that operates in 108 countries. The lawyers were asked to describe the legal barriers in their countries to getting away with such a transaction.

Lawyers from 102 countries provided complete answers to the researchers' questionnaire. The researchers conducted follow-up inquiries, and the sample they used for this paper was based on the responses of 72 lawyers who confirmed the validity of the aggregate data.

The lawyers were asked to describe the minimum legal requirements in force in May 2003 regarding who approves a transaction such as described in the hypothetical scenario; what needs to be disclosed to the board of directors, the stock exchange, and the regulators; the duties of corporate officers, directors, and controlling shareholders; how the transaction's validity could be challenged; what plaintiffs would need to prove to recover damages; access to information; fines and other penalties, and the like. Based on the data, the authors reached several conclusions. Primary among these is that the index for minority shareholder protection is sharply higher in common law countries, such as the United Kingdom (which ranks fifth on the anti-self-dealing index), than in civil law countries, such as Italy (forty-second on the index). This is consistent with earlier studies that concluded that investor protection is higher in common law countries than in civil law ones.

The researchers also were interested in how the regulation of self-dealing might relate to the development of a nation's stock market. It was also clear that the index is a statistically significant and economically strong predictor of a variety of measures of stock market development across countries. Foremost among these measures is the ratio of stock market capitalization to GDP. The index results support earlier findings that demonstrated that common law countries have much more valuable stock markets relative to their GDPs than do civil law countries. The results also show that theoretical measures of investor protection are closely linked to financial development.

The researchers could not isolate a single "best" measure of shareholder protection, but concluded that measures of shareholder protection from securities laws appear to work best in terms of predicting stock market outcomes; the data for this, however, was available for only 49 countries. These measures moreover are particularly appropriate for studies of protection of investors buying securities, as opposed to corporate governance per se.

The researchers say that perhaps the most basic conclusion from their data is that *laissez-faire* — having no public regulation or oversight at all — is certainly not conducive to developing financial markets. Countries with successful stock markets mandate that shareholders receive the information they need and the power to act — ncluding both voting and litigation — on this information.

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The empirical results further suggest that an effective strategy of regulating large self-dealing transactions is to combine full disclosure of such transactions with the requirement of approval by disinterested shareholders. Similarly, the results suggest that ongoing disclosure of self-dealing transactions, combined with a relatively easy burden of litigation placed on the aggrieved shareholders, also benefits stock market development.

Finally, the evidence suggests that the government's power to impose fines and imprisonment for self-dealing transactions that meet disclosure and approval requirements does not benefit stock market development. The authors stress that this is a narrow conclusion, since it does not address the importance of public enforcement in situations where self-dealing transactions are concealed, as in the cases of Enron and Parmalat. To avoid self-dealing, however, it appears best to rely on extensive disclosure, approval by disinterested shareholders and private enforcement.

— Matt Nesvisky

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