

Mutual fund investors: sharp enough?

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Abstract

Who are mutual fund investors? The answer is critical to regulatory policy. The mutual fund industry portrays fund investors as diligent, fairly sophisticated, and guided by professional financial advisors. The SEC paints a more cautious portrait of fund investors, though touts improved disclosure by the fund industry as a sufficient antidote. However, an extensive academic literature finds that fund investors are unaware of the basics of their funds, pay insufficient attention to fund costs, and chase past performance despite little evidence that high past fund returns predict future returns. These findings suggest that policymakers should rethink current regulatory policy. Disclosure may not be enough.

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The U.S. mutual fund industry is subject to the decisions and discipline of dispersed and diverse mutual fund investors. Their investment knowledge and sophistication are critical to the effective functioning of the fund market. Unlike the markets for publicly-traded securities, the fund market lacks mechanisms – like short-selling – to ensure informational efficiency. This article examines the profiles of mutual fund investors presented alternatively by the mutual fund industry, the Securities and Exchange Commission (SEC), and by an extensive academic literature.

Mutual fund ownership

Mutual funds have transformed from being the ‘small investor’s diversified portfolio’ to ‘every person’s retirement account.’ Over the past two decades, U.S. retirement assets have shifted from defined-benefit (pension) plans to defined-contribution plans and IRAs. As of 2007, U.S. retirement assets totalled U.S.\$17.8 trillion, with U.S.\$4.5 trillion in defined-contribution plans and U.S.\$4.8 trillion in IRAs. About half of the defined-contribution assets (U.S.\$2.4 trillion) and IRA assets (\$2.3 trillion) are invested in mutual funds. In all, the total share of retirement assets held by mutual funds increased from 8% in 1992 to 26% in 2007 [ICI Research Fundamentals (2008)].

Mutual fund ownership is widespread. Today, almost 51 million American households (or 44%) own mutual funds, far more than those holding individual stocks and bonds [ICI Ownership Trends (2007)]. The median fund-owning household has a modest income of U.S.\$74,000 and financial assets of U.S.\$175,000, of which U.S.\$100,000 is invested in mutual funds [ICI Fund Shareholders (2008), ICI Fact Book (2008)]. Mutual fund holdings total almost U.S.\$12 trillion. Half of these holdings are in equity funds (50%), with most of the rest divided between money market funds (29%) and bond funds (15%) [ICI Investing Trends (2008)].

Industry’s portrait of fund investors: sophisticated and informed

The Investment Company Institute (ICI) is the national trade association for the mutual fund industry. It has consistently maintained that the industry is highly competitive, with fund choices, services, and fees set in a robust market of fairly sophisticated and informed investors.

ICI survey of (some) fund investors – in 2006, the ICI surveyed 737 investors who had bought a new stock, bond, or hybrid fund outside of an employee-sponsored retirement plan [ICI Investor Preferences (2006)]. The survey found that the information investors most commonly consider before investing are a fund’s fees and expenses (74%), its historical performance (69%), and its risks (61%). In addition, the survey found that fund investors consult an average of three information sources before investing, the most common being a professional financial advisor (73%).

The ICI survey paints a very comforting portrait of mutual fund investors: investors consider important information before investing and are usually assisted by a professional. But the survey may be of limited value. In addition to relying on investors to accurately self-report their behavior in face-to-face interviews, the survey was limited to investors who own funds outside of employer-sponsored plans. Such investors are likely to be more experienced and financially sophisticated than the typical investor. In addition, most of those surveyed report using professional financial advisors, which is a resource often unavailable in employer-sponsored plans.

ICI statements about fund investors – the ICI’s profile of mutual fund investors is also reflected in other ICI publications, comment letters to the SEC regarding proposed rules, and statements by its officials. The ICI frequently asserts that investors search for funds with low fees and expenses. ICI publications regularly state that this imposes a strong market discipline on mutual funds. ICI officials echo this view in speeches and interviews. As evidence, the ICI points out that investors are heavily invested in lower-cost funds. An ICI study of mutual fund industry competition concluded that “more than three-quarters of stock and bond fund assets are invested in funds charging below-average operational and management expenses” [ICI Competition (2006)]. Also, another ICI study found that the average fund fees and expenses that investors paid in 2005 were at their lowest level in more than 25 years [ICI Fees and Expenses (2006)].

Nonetheless, while trumpeting investor demand for lower-cost funds, the ICI has been careful not to encourage investors to invest in such funds. For example, an online mutual fund primer sponsored by the ICI Education Foundation and the National Urban League points out that annual stock market returns have averaged 11% since 1926, yet is silent about the effect of expenses, fees, and loads on fund returns.

ICI views on investor access to information – ICI officials have also credited as a source of market discipline the great amount of fund information available to investors. They claim that this information allows investors to compare funds, forcing funds to compete for investors. Interestingly, however, the ICI also believes that most investors are receiving too much information about funds. Thus, the ICI has supported steps taken by the SEC to reduce, summarize, and standardize the information provided in fund prospectuses and to create even more basic disclosure documents, such as fund profiles. In addition, the ICI has supported SEC initiatives to simplify the language used in disclosure documents.

SEC’s portrait of fund investors: capable (with some help)

The SEC, though less sanguine than the fund industry, also paints a portrait of fund investors that implies a well-functioning mutual fund market. The SEC shares the industry view that fund investors con-

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sider a variety of important information before investing. The SEC also agrees that fund investors can benefit from fund information being presented in a concise, readable, and standardized form. Unlike the industry, however, the SEC has specific concerns about investor sophistication, worrying that fund investors pay too little attention to fund fees and expenses and too much attention to past returns. The agency's solution, however, is generally improved disclosure.

As then SEC Chair Arthur Levitt told Congress, "The Commission should not be the arbiter of the appropriate level of fund fees. Whether fund fees are too high or too low is a question that we believe must be answered by competition in the marketplace, not by government intervention."

SEC regulation of fund disclosure – by law, prospective fund investors must receive a prospectus before or when they invest. The SEC views the fund prospectus as the primary source of information for investors choosing a fund. In addition, the SEC requires that fund advertisements explicitly direct investors to the prospectus by warning "the prospectus should be read carefully before investing." The prospectus, aimed at the 'typical investor,' must include information about the fund's investment objectives or goals, principal investment strategies, principal risks, 10-year returns, returns of an appropriate market index, fees and expenses, fund management, fund pricing, purchase and redemption, fund marketing (and loads and 12b-1 fees), and financial highlights.

Except for disclosing the returns of an 'appropriate' market index, the prospectus need not provide any information on performance, loads, fees, expenses, or portfolio turnover of comparable funds. The SEC assumes fund investors, left to their own devices, will determine how a fund compares to other funds. Likewise, the prospectus need not educate investors about diversification, long-term returns of various asset classes (such as stocks or bonds), or the relationship of risks and returns. By not requiring such information in the prospectus, the SEC implicitly assumes that most investors already know or do not need this information.

In its most recent effort to improve disclosure to fund investors, the SEC proposed in November 2007 to "provide investors with streamlined disclosure of key mutual fund information at the front of the statutory prospectus, in a standardized order that facilitates comparisons across funds." The proposed summary, written in 'plain English' and 3-4 pages long, would contain information in a fixed order, including information not currently required in the current prospectus such as risk/return bar chart, volatility of returns, top ten portfolio holdings, identification of portfolio managers, and financial intermediary compensation.

The SEC also assumes the format in which information is presented is important to investors. It believes fund investors are more likely

to understand clear, concise, and standardized disclosure in plain English or in graphical or tabular form. Thus, for example, the prospectus must contain a standardized graph and table of the fund's historical returns.

Nonetheless, despite its awareness of the difficulties investors have in processing information, the SEC has not ensured that it is really helping them understand their fund investment choices. In its 1998 prospectus disclosure rulemaking intended to improve the communication of important information about funds to investors, the SEC acknowledged an ICI survey finding that about half of fund investors do not read the prospectus before investing, but the SEC has not conducted a follow-up study on whether fund investors are reading or understanding the new streamlined prospectuses it mandated.

SEC regulation of fund advertising – mutual fund advertisements are also an important source of information for investors. Investors invest more in heavily advertised funds. The SEC's rules regarding fund advertisements, like its rules regarding prospectus disclosures, reflect its view of fund investors. One recurring theme of the advertising rules is that investors must be reminded to consider certain important information when choosing a fund. Fund advertisements must explicitly advise investors "to consider the investment objectives, risks, and charges and expenses of the investment company carefully before investing."

The SEC's advertising rules also acknowledge that investors may overweight past performance, which mutual funds with strong records routinely tout despite little evidence that past returns predict future returns. Thus, it requires advertisements of past returns to include a boilerplate warning that "past performance does not guarantee future results." In addition, any performance information in advertisements must be standardized. For example, the SEC prescribes how returns must be calculated and specifies that returns must be presented for one-, five- and ten-year time periods.

As with its prospectus regulations, the SEC's advertising regulations are based largely on the agency's unsupported perceptions of the impact of its mandates. For example, although the SEC requires that advertisements warn that past returns do not guarantee future returns, there is no indication that the SEC has ever examined whether these warnings are effective.

Academic literature's profile of fund investors: mostly clueless

The academic literature finds fund investors ill-prepared to choose among funds. Contradicting the industry's and regulator's profiles of relatively sophisticated fund investors, an extensive body of research of actual investor behavior – conducted primarily by finance professors – reveals that most fund investors are unsophisticated and uninformed. This finance literature finds that investors

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are mostly ignorant of the basic characteristics of the funds they own. They are unaware of their funds' riskiness and pay insufficient attention to fund costs. In addition, they regularly buy funds based on strong past performance, despite the scant correlation between high past and future returns.

In short, mutual fund investors are unable to perform the disciplining role that the industry says they do and that the SEC believes they can do with some assistance. This is unsurprising. By definition, mutual fund investors have chosen to delegate management of their investment to a professional. But fund investors still must choose in which funds to invest. The academic literature suggests that they need much more help to do this than they are receiving now.

Investors are ignorant of basic fund characteristics – Capon et al. (1996) conducted a survey of fund investors and found that they are “in general uninformed regarding the nature of their investments.” Of those surveyed, 72% did not know if their primary fund invests in domestic or international securities, and 75% did not know whether the fund invests in equity or fixed income securities. Similarly, a survey of 2,000 mutual fund investors, sponsored by the SEC and the Office of the Comptroller of the Currency, found that 57% of them did not know the expense ratio of their primary fund even when they purchased it [Alexander et al. (1998)].

Investors are inattentive to risk – fund investors are generally not aware of fund risks and do not take them seriously. A number of academic studies of investor behavior are at odds with the conclusions of the ICI Investor Preferences survey (2006), in which most respondents (61%) reported they review a fund's risks before investing, making ‘fund risks’ the third most reviewed information by fund investors. Academic studies show fund investors consistently do not understand and are indifferent to risk. Wilcox (2003) asked fund investors to choose among hypothetical stock funds differing in up to six characteristics: the fund company's name, the fund's load, the fund's annual management fee, the fund's returns during the previous year, the fund's average annual returns during the previous 10 years, and the fund's beta. He found that a fund's beta was the least important characteristic to investors. Del Guercio and Tkac (2002) found that surveyed investors overwhelmingly acknowledge not using standard measures of risk – such as beta or standard deviation of fund returns – in evaluating a fund. In addition, they found that investors do not pay attention to whether a fund minimizes even its diversifiable risk.

Even though investors personally do not carefully consider a fund's risk, many investors say that they use published fund ratings or rankings – such as those from Morningstar – that often incorporate some measure of risk. The ICI survey, for example, found that 35% of investors review a fund's “rating from a mutual fund rating service” before purchasing the fund, and 19% call it “very important” to their

final decision to invest. But this reliance on third-party advice does not appear to markedly increase investors' sensitivity to fund risk. Although there is a positive relationship between flow and funds' risk-adjusted returns, Del Guercio and Tkac found that it is not as strong as the positive relationship between flow and non-adjusted returns.

Investors pay insufficient attention to fund expenses – studies generally show that operating expenses, paid through management fees, matter little to many investors.

Surveys of fund investors

Surveys of fund investors have found that they pay little attention to fund fees and expenses. For example, in a survey sponsored by the SEC and Office of the Comptroller, only 19% of fund investors could give even an estimate of the expense ratio of their largest mutual fund holding, and only 43% claimed to have known it even at the time they first purchased the fund [Alexander et al. (1998)]. Similarly, Wallison and Litan (2007) surveyed mutual fund investors and asked them to rate (on a scale of one to ten) how informed they were about their own mutual fund investments. Only 21% of respondents rated their knowledge highly (8 or above), and less than 10% of even this self-described knowledgeable subgroup “knew even approximately what they were paying as an advisory fee.” Also, Capon et al. (1996) asked mutual fund investors to rate the importance of nine particular factors in choosing a mutual fund. The ratings could range from one (not at all important) to five (extremely important). The respondents gave management fees an average rating of only 2.28, fifth among the nine factors.

These results stand in stark contrast to those of the ICI survey in which 74% of those surveyed claimed to review fund fees and expenses before investing. One reason for the discrepancy may be differences in the questions asked. The ICI survey asked whether the investor “reviewed” a fund's fees and expenses before investing, while the Capon et al. survey, for example, asked how “important” the fund's fees were to the investor in choosing a fund. Investors could review a fund's fees before investing, yet not give it much weight. This difference, however, would not reconcile the ICI survey with the SEC and Office of the Comptroller survey, in which less than half of investors reported knowing their largest fund's expenses when they purchased the fund.

Studies of investor behavior

Although many investors seek funds with low expenses, studies reach mixed conclusions regarding whether funds with lower expenses receive more flow overall. The Barber et al. (2005) study of diversified U.S. equity mutual funds from 1970-1999 found “at best, no relation between operating expenses and flows and, at worse, a perverse positive relation between expenses and flows for large funds.” In addition, they examined the mutual fund purchases

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and sales made by customers of a large discount broker for 1991-1996, identifying those instances when a fund purchase followed a sale within three weeks. They found that, for these instances, the operating expenses of the purchased funds were generally higher than those of the funds that were sold, indicating that investors do not switch funds to reduce the expenses they are paying.

In contrast, the Sirri and Tufano (1998) study of equity mutual funds from 1971-1990 found that reductions in expenses have a strong positive effect on flow, yet they also found that increases in expenses strangely have a marginally significant positive effect on flow as well. In addition, Zhang (2007) and Coates and Hubbard (2007) found that investor demand for mutual funds is elastic with respect to fund expense ratios and Zhang also that the elasticity has been increasing recently. However, Coates and Hubbard (2007) note that recent studies have failed to find consistently that fund expense ratios have declined in recent decades, even though the industry enjoys large economies of scale and the size of funds and fund families has grown dramatically. For example, an SEC study (2000) found that the weighted average expense ratio for equity and bond funds rose from 0.73 in 1979 to 0.94 in 1999. Thus, despite the ease with which fund investors may move from one fund to another, investors seemed not to have had a great disciplining effect on expenses.

Evidence from index funds

The growth of low-cost index funds over the past 30 years provides evidence that a subset of investors is sensitive to fund expenses. Index funds' popularity, however, has plateaued. Index funds first became available in 1976, and by 1999 grew to hold 10% of equity mutual fund assets. Index funds' market share, however, has remained stable since then [Bogle (2007)]. In addition, the success of high-cost index funds indicates that many investors continue to disregard fund expenses. Although a rational investor might buy a high-cost, actively-managed fund hoping the fund manager's stock picking skills will compensate for the higher expenses, a high-expense index fund makes little sense. By definition, an index fund manager's stock picking skill is irrelevant. A rational index fund investor should buy the index fund with the lowest expense ratio, because all index funds are holding essentially the same securities.

Despite this, Elton et al. (2004) found that a large amount of new cash flows into S&P 500 index funds from 1996-2001 went "to the poorest-performing [high-cost index] funds." Also, new index funds that entered the market during the period had higher expense ratios (0.77 average, 2.00 maximum) than the average index fund (0.44). And the highest-cost decile of index funds grew almost twice as much as the lowest-cost decile. Similarly, Hortacsu and Syverson (2004) found that average expense ratios for S&P 500 index funds rose from 0.27% in 1995 to 0.32% in 2000, with high-expense S&P 500 funds (highest quintile) nearly tripling their market share.

The fund industry has attempted to explain the success of high-expense index funds. A recent ICI publication argues that differences across index funds, such as the size of fund assets and average account balances, may explain much of the differences in their expense ratios [Collins (2005)]. Although smaller funds may have higher costs, it does not explain why investors would choose such funds when identical, lower-cost alternatives exist. In the same publication, the ICI also argues that fund investors may choose high-cost index funds because such funds offer better services to investors. However, Elton et al. (2004) found no relationship between fund families' service quality and investors' choice of index funds. They also found no evidence that investors' purchases were concentrated in the largest fund families, which should be better able to provide services than smaller families.

Investors (increasingly) pay attention to loads

Many fund investors, although generally insensitive to fund operating expenses, increasingly pay attention to fund loads, which are becoming less common.

Studies on loads – do loads increase or decrease fund flows?

On the one hand, investors should be averse to paying additional fees, so one would expect a negative relationship between loads and flow. In addition, because loads are one-time fees that are deducted directly from an investor's individual account they are much more salient than operating expenses. Indeed, in an experiment requiring investors to choose among hypothetical stock funds, Wilcox (2003) found that investors were more averse to front-end loads than to high expense ratios. On the other hand, load proceeds are used to market funds, so additional marketing might offset investor aversion to loads. Studies have come to differing conclusions regarding the net effect of loads on fund flow. Sirri and Tufano (1998) found that for equity funds from 1971-1990 there was no relationship between loads and flow; investors' aversion to loads seemed to roughly offset the effect of additional marketing. More recently, however, Barber et al. (2005) found a negative relationship between loads and flow for equity funds from 1970-99.

Although many fund investors are sensitive to loads, many other investors clearly pay little attention to them. Capon et al. (1996) found in a survey of households that invest in mutual funds that 39% of respondents stated they did not even know if their primary fund has a load. In addition, Wilcox's experiment (2003) found the fund's load was only the fourth most important factor (of six) to the investors – ahead of the fund's management fee and beta, but behind the fund's return over the past ten years, the fund's return over the past year, and the fund company's name.

Rule 12b-1 fees – investors pay less attention to 12b-1 fees, the ongoing marketing fees deducted over time from the fund's assets.

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Like loads, 12b-1 fees are used to pay broker commissions and other marketing costs, but unlike loads, they are not one-time fees deducted directly from investors' individual accounts. Overall, studies indicate that investors are less averse to 12b-1 fees than to other types of marketing fees. Barber et al. (2005) examined the effect of 12b-1 fees flows into diversified U.S. equity mutual funds from 1993-1999. They found that 12b-1 fees rose from 0.14% in 1993 to 0.20% in 1999. Also, unlike their findings for loads, they found a positive relationship between 12b-1 fees and flows, indicating that the marketing benefits from 12b-1 fees outweigh investors' aversion to paying them. In addition, Elton et al. (2004) found that 12b-1 fees did not have a significant net effect on flow into S&P 500 index funds from 1996-2001. In all, investors may have become sensitive to loads, but remain insensitive to smaller, ongoing 12b-1 fees. That is, fund investors notice more when struck by a club, than when slowly bled to death.

Investors chase past returns

Although fund investors pay insufficient attention to fund risk and operating expenses, they pay great attention to historical returns. Studies find this to be the most prominent trait of fund investors. Investor surveys and experiments have uniformly found the importance of a fund's past returns to investors choosing among funds. For example, Wilcox (2003) found that investors choosing between hypothetical mutual funds treated returns over the past ten years and over the past year as the two most important factors. Also, Capon et al. (1996) found that a fund's "investment performance track record" was the most important factor.

Numerous other studies have confirmed that investors flock to mutual funds with the highest past returns. For example, Del Guercio and Tkac (2002) examined flow into a large sample of equity mutual funds and found that a fund's past return has a strong positive effect on fund flow. This positive relationship was strongest for funds with the highest returns. Similarly, Sirri and Tufano's study (1998) of flow into equity funds had similar findings.

Although investors chase the highest returns, there is little reason for them to do so. Despite numerous studies, "within the finance literature there is [only] weak and controversial evidence that past performance has much, if any, predictive ability for future returns" [Wilcox (2003)]. "While some controversial evidence of persistence [of mutual fund returns] does exist ... it is concentrated in low-liquidity sectors or at shorter horizons" [Berk and Green (2004)].

Financial advisors provide little help

The ICI emphasizes that many fund investors consult professional financial advisors. Little evidence exists, however, that these advisors provide investors tangible benefits, and investors pay a high price for using them.

Use of financial advisors – According to the ICI survey (2006), 73% of investors surveyed consulted a professional financial advisor before buying a fund. Similarly, Capon et al.'s survey (1996) of households that invest in mutual funds found that – of nine sources of information – commission-based financial advisors were the third most important source. At first glance, the widespread use of financial advisors by mutual fund investors is encouraging. Although most investors are not financially sophisticated, many are receiving professional advice that might help them overcome their limitations. Before reaching such a conclusion, however, advisors' behavior must be understood.

Survey of financial advisors – Jones et al. (2005) surveyed 530 professional financial advisors and asked them the importance that 14 fund characteristics played in their recommendations to clients. First, the good news. Financial advisors ranked the fund's objective as the second most important factor and fund risk as the third most important factor in their recommendations, giving these two factors much greater emphasis than investors.

Now the bad news. Advisors ranked a fund's expenses as only the eighth most important factor among the fourteen examined. Also, unsurprisingly, marketing costs (loads and 12b-1 fees) were the least important factor to advisors – even less important than to fund investors themselves. In addition, like investors, financial advisors place great emphasis on the fund's past returns. Advisors in the survey ranked comparable performance as the most important factor and absolute performance as the sixth. Thus, financial advisors give high priority to funds that have performed well in the past, despite little evidence that strong past performance predicts strong future performance.

Advisors' effects on actual investor behavior – unfortunately, brokers direct investors to funds that offer brokers more compensation. Bergstresser et al. (2007) compared fund choices from 1996-2004 by fund investors who bought through direct channels and by those who bought through brokers. They found that brokers directed investors toward funds with higher front-end loads and 12b-1 fees. Also, the larger a fund's load and 12b-1 fee, the more flow it received from broker-directed investors. As a result, investors pay a steep price for using brokers. Bergstresser et al. estimated that, in 2002, investors paid up to U.S.\$3.6 billion in front-end loads, U.S.\$2.8 billion in back-end loads, and U.S.\$8.8 billion in 12b-1 fees. However, they found little evidence that fund investors receive commensurate benefits from brokers. For example, brokers do not reduce investors' chasing of past performance; investors who buy funds through brokers are as likely to chase 'hot' funds as are investors who buy through direct channels. In fact, funds purchased through brokers tend to underperform funds that investors buy directly, even before taking into account the higher distribution-related expenses (such as loads) of broker channel funds. This

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underperformance (U.S.\$4.6 billion in 2004 alone) exists in both absolute returns and in risk-adjusted returns.

They also found no evidence that “brokers provide superior asset allocation advice that helps their investors time the market.” The asset allocation choices made through broker-channel funds did not earn higher absolute or risk-adjusted returns than funds bought through direct channels. In theory, investors who buy funds through brokers, thus paying more for distribution, might still benefit if broker channel funds have lower non-distribution expenses (such as management fees). That is, paying for fund marketing to attract new investors and bring in more assets might be worthwhile if, as a result, the fund gained economies of scale and passed them through to existing investors. Bergstresser et al., however, did not find that funds bought through brokers have lower non-distribution expenses – so investors do not benefit in this way either.

Advertising does not benefit investors

In addition to financial advisors, investors pay attention to mutual fund advertisements. Unfortunately, these advertisements do not help investors make better fund choices. Instead, they exploit the tendency of investors to chase past returns. Mutual funds advertise because it works. Capon et al.'s survey (1996) found that advertising was the second most important source of information for investors. In addition, Jain and Wu (2000) found that equity funds that advertised in Barron's or Money magazine experienced approximately 20% greater flows than similar funds that did not advertise. Also, more heavily advertised funds received even greater flows.

Advertising benefits mutual fund companies by increasing flows and thus management fees, which are generally based on assets in the fund. Because investors chase past returns, fund companies often advertise high past performance. For example, Mullainathan and Shleifer (2005) found that past returns were mentioned, on average, in 62% of equity fund ads in Money and in 59% of equity fund ads in BusinessWeek. In addition, Jain and Wu (2000) found that advertised funds outperformed non-advertised funds with the same investment objective by an average of 6% over the twelve months prior to being advertised.

Although advertising benefits fund companies, little evidence exists that it also benefits investors. Jain and Wu found that, after being advertised, funds actually tend to underperform the same benchmarks that they beat before being advertised.

Fixing a dysfunctional market

Fund investors erroneously focus on past returns, while paying insufficient attention to fund risks and ongoing costs. The disclosure and warnings required by the SEC, as well as the advice of financial advisors, are not sufficient to help investors overcome

their limitations. What should the SEC do to improve the functioning of the mutual fund market?

Recognize failure of current disclosure system – the SEC requires fund advertisements to advise investors to read the prospectus and requires that critical information in the prospectus be presented in plain English and in standardized formats. However, few investors refer to the prospectus. As a result, the SEC disclosure regime creates only the illusion of informing investors.

Highlight fund costs – the SEC is considering a prospectus summary that, among other things, highlights expenses in a simplified and standardized tabular form. This is salutary – investors are more likely to use clear, simplified information. For example, Choi et al. (2006) found that investors given a one-page expense summary sheet with the prospectus are more likely to pay attention to expenses and choose lower-expense funds than investors given only the prospectus. However, the current proposal does not call for comparability data. Cox and Payne (2005) have urged that mutual funds disclose how their expense ratios compare to those of comparable funds. They argue that this data is necessary to help investors overcome an evaluability problem. That is, knowing a fund's expense ratio is helpful only if the investor can also readily compare it to that of other funds.

The mutual fund industry has criticized efforts to require comparative data on expense ratios, arguing that it is difficult to determine which funds are comparable to others. However, this argument is a red herring. Investors choosing among mutual funds must already compare funds, and the SEC or mutual funds themselves are unquestionably better able than most investors to determine which funds are comparable. In addition, mutual funds must already make comparability determinations: the prospectus must compare a fund's historical returns to that of a relevant market index.

Nonetheless, leading a horse to water is no assurance it will drink. Even if cost information were displayed more prominently and presented on a comparative basis, fund investors would likely still not give it sufficient weight given their obsession (and that of an obliging industry) with past returns. Investors who believe that a strong-performing fund will continue to outperform its peers are likely to minimize the importance of expenses. Thus, providing information to fund investors on actual persistence of returns may be a key to them paying more attention to fund costs.

Discourage reliance on past performance – the SEC's mandated warnings greatly understate the dangers of chasing past returns. For example, performance advertisements must state words to the effect that “past performance does not guarantee future results [and] current performance may be lower or higher than the performance data quoted.” Such a warning is actually misleading. It sug-

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gests that there is a positive relationship between past and future high returns, but just not a 'guaranteed relationship.' Investors, however, need to understand that past returns are not a very useful predictor at all and that strong past performance is generally just a matter of chance [Barras et al. (2008)]. The SEC's warning does not come close to conveying this.

Pay attention to academic literature – as discussed in this article, an extensive academic literature shows that the SEC has too much faith in the capabilities of fund investors. Unfortunately, to date, the SEC has ignored this literature in regulating the industry. We examined five recent SEC rulemaking releases on mutual fund disclosure, which contain explanations and rationales for the rule proposals. In these five releases, the SEC cites a total of 339 sources in its discussion of investor behavior or information needs. The most frequently cited sources were comment letters from various individuals and organizations, including the ICI (75%), followed by news stories (8%), ICI research (4%), industry members (3%), SEC research (3%), non-academic research (2%), and ICI comments (2%). The SEC never cited academic research.

Thus, the SEC does not cite (much less rely upon) independent, academic studies indicating investors' needs and limitations, and whether investors can understand and will use the information that the SEC requires fund companies to disclose. Instead, the SEC has relied significantly on the fund industry for the agency's understanding of investor informational needs. For example, in its 1998 prospectus disclosure rulemaking, the SEC referred to ICI research reports seven times and ICI comment letters three times to support its conclusions about the information needs of fund investors.

The value of paying attention to academic research is not lost on everyone in the agency. In a recent speech, Brian Cartwright (General Counsel of the SEC) pointed out that "[g]iven the practical applications of theoretical finance, it's not surprising that today hedge fund managers regularly turn up at academic conferences and eagerly scour the academic literature for the next big thing. Regulators should too. If the investment choice most important for retail investors these days is not which stock or bond to buy, but which fund (or other intermediary) to choose, we need to find ways to apply the insights recent finance theory has given us in the service of retail investors." This would be a step in the right direction.

Conclusion

Retirement and saving for retirement are relatively recent phenomena. Seven decades ago our national retirement program was entrusted to a federal bureaucracy. Two decades later, our private retirement savings moved to company and government pension plans, administered by professional money managers. Today, as Social Security becomes less certain and defined-benefit pension plans give way to defined-contribution plans, our retirement savings has moved to mutual funds. In the process, fund investors have found themselves responsible for making essential investment choices concerning their retirement savings.

Are investors up to this heady new role? The fund industry, while painting a favorable portrait of fund investors, benefits from investor ignorance. The industry earns fees based on assets under management, and investors who pay little attention to fund costs create little pressure on fund companies to lower these costs. In addition, investors' tendency to chase past returns makes promoting past winners an effective marketing method. So long as investors pay insufficient attention to fund costs, the industry has an unassailable and highly profitable business model.

The SEC has undertaken only marginal reforms, focused primarily on streamlined disclosure and formulaic warnings. Relying significantly on the industry for information about investor needs, the SEC has largely accepted the story of a well-functioning market. While SEC reforms dance around the edges of investors' limitations, the agency seems in denial about the extent of this problem. Given the SEC's almost complete disregard of academic studies of fund investor sophistication and behavior, investors' needs are likely to be greatly underestimated and further reforms likely to be insufficient. As mutual fund investors, our financial future has been placed in our hands. And, as Pogo observed and the SEC has yet to fully recognize, "we have met the enemy and he is us."

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