

Mutual Funds: Temporary Problem or Permanent Morass?

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Morass, *n.* A complicated or confused situation which it is difficult to escape from or make progress through.

—*Oxford English Dictionary (OED Online, 2004)*

There has been no recent shortage of commentary on conflicts of interest in mutual fund management.¹ From Eliot Spitzer to Warren Buffett, from the halls of Congress to investor discussion boards, the mutual fund industry has been under attack. What began in September 2003 as revelations of improprieties regarding pricing calculations and trading deadlines has now evolved into scrutiny of soft-dollar arrangements, manager compensation, governance structure, and the level of mutual fund fees. Given that this is the first real scandal that the industry has experienced, it is somewhat surprising to see the "rush to regulation" that has followed. But this is a post-Enron world. The U.S. House of Representatives has already passed the Mutual Funds Integrity and Fee Transparency Act of 2003, the Securities and Exchange Commission (SEC) is considering ten new rules covering almost all aspects of mutual fund pricing and operations, and the similarly wide-ranging Mutual Fund Reform Act of 2004 is now before the U.S. Senate.

The motivation behind this flurry of activity is clear: protecting the interests of 95 million mutual fund shareholders. But how will investors really be affected by the current scandals and future regulatory changes? My goal in this paper is to address this question by stepping back from the details of

particular settlements or proposals and instead beginning with an economist's view of the relationship between investors and their mutual fund managers. On the basis of this conceptual characterization of the agency problems inherent in mutual fund management, the analysis then considers potential solutions, from compensation-based fee structures to fund governance to disclosure. Along the way, it is of the utmost importance to strive to understand current business practices (for instance, soft-dollar arrangements), whom they benefit, and why they exist. Only with this knowledge can we rigorously contemplate how regulatory changes might affect investors and advisory firms and answer the question posed in the title: Are mutual funds going to be a temporary problem, easily fixed, or a permanent (regulatory) morass?

Whose Money Is It Anyway?

Mutual funds are registered with the SEC as open-end investment companies and are regulated by the Investment Company Act (ICA) of 1940 (and its amendments in 1970 and 2001). As the name suggests, mutual funds are companies that exist to pool the investment capital of a large number of investors. As with other companies, mutual funds are wholly owned by the investors, or shareholders. In contrast to traditional firms, however, mutual funds have no direct employees and do not

profit from selling a product or service in the marketplace. Their reason for existence is to take advantage of mutual investment to provide diversified portfolios to shareholders at a lower cost than they could achieve on their own.

Theoretically, we can imagine a mutual fund as an organization in which a group of shareholders form the fund and meet periodically to decide on the investment strategy.² In practice, of course, this is not the case. Mutual funds contract with an investment adviser to make portfolio decisions and with outside service providers for record keeping, transfer agent services, underwriting, and so forth. Legally, mutual funds are independent of the advisory firm

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and could change investment advisers if a majority of the shareholders or directors approved such a move.

From this legal organization it follows that an advisory firm is acting in a custodial fashion with respect to shareholder assets and as such has a fiduciary duty to make decisions in the best interests of shareholders. Indeed, the idea that funds manage shareholder assets underlies most of the rhetoric surrounding the recent mutual fund scandals. In particular, the call for more disclosure of fund expenses, holdings, and manager compensation is based on the idea that it is the shareholders' money that is being spent and invested.

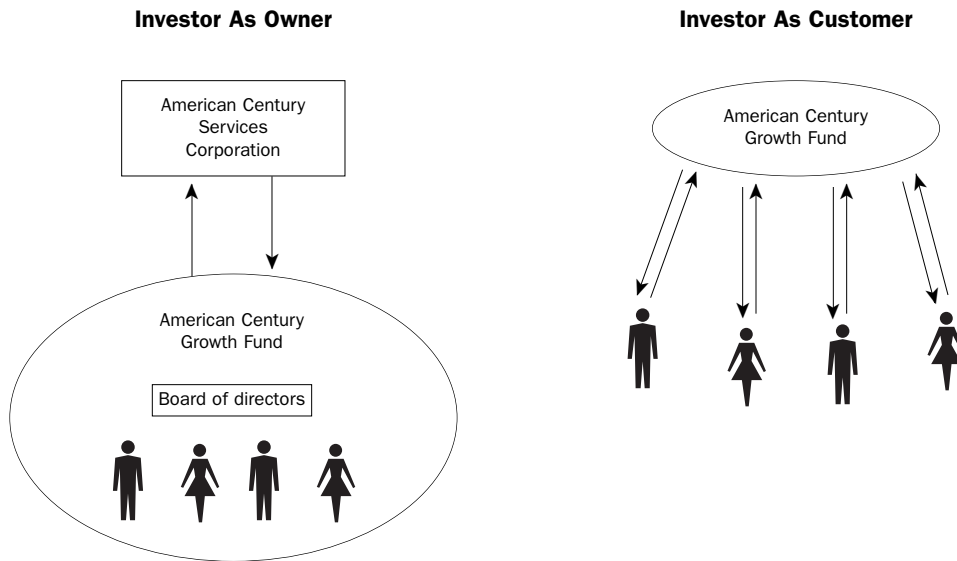
From a somewhat different perspective, the investor can be seen not as an owner but as a customer (see Figure 1). In this view, the adviser is merely another service provider, similar to a mechanic or a general contractor. After talking with many people in the course of preparing this paper, I have realized that this view is implicitly taken by many mutual fund shareholders themselves. They do not think of themselves as owners of a firm but rather as clients, purchasing investment returns. In their minds, Magellan is Fidelity's fund, operated by Fidelity to provide them with investment management services.

This view makes more sense when we examine how mutual funds are typically run rather than

how they are legally organized. Unlike the scenario outlined above, mutual funds are started by a sponsor money management firm that will act as the investment adviser. Frequently, companies affiliated with the investment adviser will also provide the additional services. While the investors have the power to terminate the advisory contract, they rarely do so.³ It is strange to even contemplate that Alliance investors, irritated with the market timing in their fund, would replace Alliance and the fund would become, say, an American Century fund. When adviser changes do occur, it is at the behest of the adviser through subadviser contracts or fund mergers. Indeed, mutual funds are treated as assets of the advisory firm in such situations (not legally but conceptually). Thus, in practice, a mutual fund is more of a shell, set up and managed by the sponsor firm.

The view of investor as customer also receives some weight from the fact that investors can redeem their mutual fund shares at net asset value at any time. This feature makes investing in a mutual fund unlike owning stock in a traditional company or a closed-end investment company, where the price at which an investor can liquidate reflects the market's perception of the firm's management. In that case, when management is revealed to have taken a "bad" action, current investors are damaged because they can resell their shares only at a much lower price. In contrast, when open-end mutual fund advisers are found, or even perceived, to be "in the wrong," each investor can make his or her own choice about whether managers should continue to provide services, and there is no further damage. The ability to liquidate shares at net asset value also effectively eliminates any need for mutual fund investors to initiate or even participate in proxy fights to oust directors or oppose fund mergers, and, indeed, they very infrequently do so. The ability to move money around is an investor's greatest protection and primary source of power in prompting the market to provide the services he or she desires (a subject discussed in a later section).

On the one hand, the answer to the question, whose money is it? may be irrelevant. Advisers have an incentive to maximize their own profit while investors are trying to maximize returns, and these two objectives will, in general, be in conflict. On the other hand, the answer to the question is central because it will influence how we think about regulation. (The reader may find it helpful to refer to Figure 2 during the following discussion of fund fees and conflicts of interest.) If investors are viewed as owners, they can more easily claim a

FIGURE 1**Investor As Owner versus Investor As Customer**

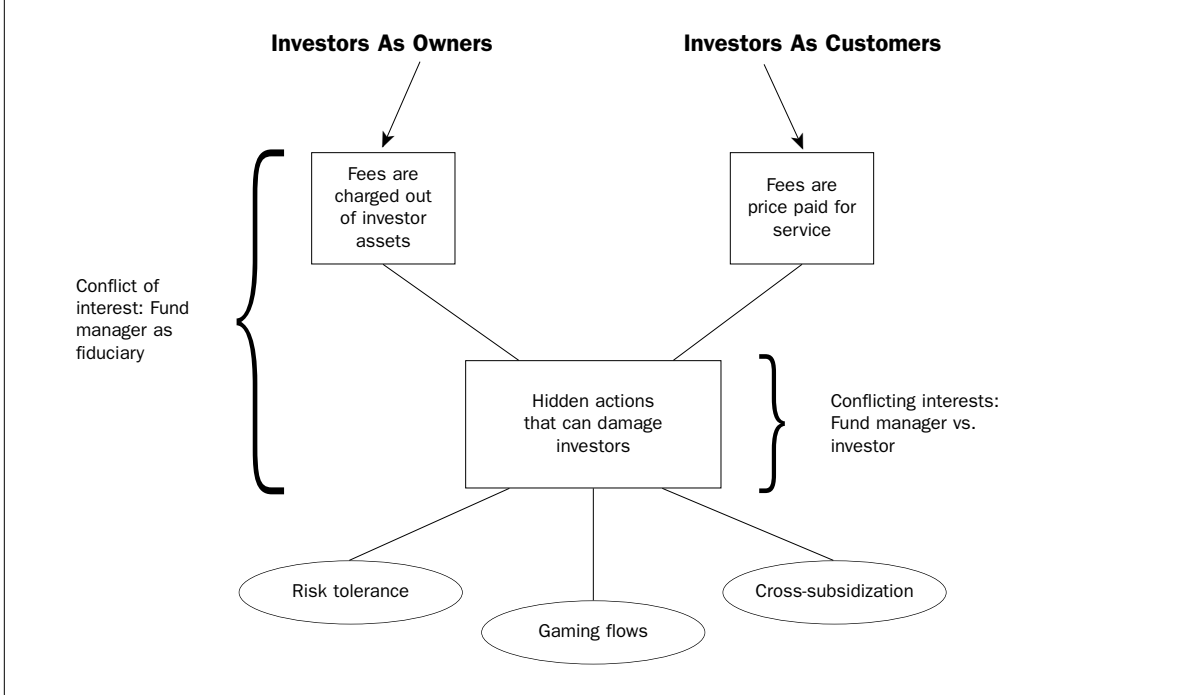
“right” to more information about how their money is managed. If funds are viewed as service providers, then investors already have much of the information (in performance records) that they need to make a decision about which fund to hire. To investors, it is the net return performance that matters, and, if they believe they can do better, they will move their money elsewhere. The advisers’ fees in this case are in a sense irrelevant: Investors invest their money and earn a net return on it, and this return is the total value of the service.

A simple analogy makes the point more directly. When I take my car to the Ford dealer to fix the radiator, I ask the price and then perform the economic calculus to determine (1) if a repaired radiator is worth that price in forgone consumption and (2) if I believe that I could get a better price from another shop since doing so would give me a larger net benefit (equal to the value of the fixed radiator minus the price of repair). Analogously, investors do not pay an explicit price for investment management services; they receive the net benefit itself and then

determine whether it is positive and whether it is dominated by another investment option. In this case, investors do not need or necessarily even want to know about transactions costs or soft dollars or exactly how many dollars they are paying in fees because all of these are netted out already when they view their return. That is not to say that such information might not be helpful for other reasons. Security returns are quite noisy, and, to the extent that expense ratios are relatively constant, they may provide investors with a useful predictor of which funds are likely to post better net performance in the future. In addition, other pieces of information, such as portfolio holdings, certainly could be beneficial, but investors’ claims to that information are not as powerful when investors are viewed as customers. This perception is in contrast to the view of investors as owners, where the gross return on the investment portfolio is theirs and any fees paid out of that is taking away some of their money.

These two opposing perspectives are important when discussing issues such as fee levels and the

1. For a comprehensive collection of *Wall Street Journal* articles and editorials on the evolving scandals, see “Mutual Funds Under Scrutiny” at www.wsj.com. A complete and updated list of funds under investigation, settlements, and fund responses to the scandal can be found at www.morningstar.com.
2. Such organizations are known as investment clubs and are exempt from the ICA under the private investment company exception in section 3(c)(1) provided they have fewer than 100 members and do not plan to issue securities to the public.
3. Tufano and Sevick (1997) report that they know of only three cases in which a mutual fund terminated its advisory contract with the sponsor firm.

FIGURE 2**Whose Money Is It Anyway?**

potential increased regulation or elimination of soft dollars or 12b-1 fees.⁴ But, as noted, there are inherent conflicts between investors and advisers regardless of which view is held. Whether investors are owners or customers, there exists an agency problem in which an investment adviser, the agent, can take unobservable actions that will affect the output going to the investor, the principal.

Indeed, in many cases the adviser has another set of principals to be concerned with: the investors in the advisory firm, be it public or private. They want to maximize the profit of the advisory firm and are the group that sets the compensation package of the individual investment manager used by each fund. There is one firm that does not serve two such masters: Vanguard Group. The shareholders of the advisory firm, Vanguard Group, are the Vanguard mutual funds themselves. One might be tempted to infer that the conflict between adviser and investor could be eliminated if other firms adopted this structure. But, operationally, this outcome is not clear. Such an advisory firm would charge the funds for advisory services at cost, as Vanguard does, but the officers of the advisory firm would largely determine that cost. This structure most closely resembles that of a mutual savings bank. The question is, who will discipline the advisory firm under this structure?⁵ I want to make it clear that I am not taking issue with Vanguard itself, which is known for its

low fees and satisfied investors. But its experience, rather than serving as proof that an alternative organizational structure would solve the fundamental agency problem, seems instead to be proof that there is a place in the market for a low-cost, mainly index-based business.

Conflicts of Interest

Much of the response to last autumn's mutual fund scandals has focused, somewhat tangentially, on fund fees, which were not part of the alleged misconduct. In particular, many people have expressed dismay that the massive growth of the mutual fund industry, combined with the assumption of economies of scale, has not delivered drastically lower fees.⁶ To view fee levels as an example of a "conflict of interest" is certainly reasonable using the traditional sense of the term. The fund adviser, when viewed as having a fiduciary responsibility to the investor/owners, certainly has interests that conflict. He wants to maximize his own profit yet has a duty to act only in the best interests of investors. This observation illustrates the adage that "a man cannot serve two masters" and gives rise to the concern about fees that benefit the adviser at the expense of investors.

In line with the discussion in the previous section, I adopt a different definition of conflict of interest in which it is the interests of the adviser

and the investors that are in conflict. I view the adviser as having one, and only one, reasonable objective: to maximize his or her own profit. My definition is then roughly synonymous to the notion of an agency problem in the relationship between advisers and investors. And, under this definition, conflicts of interest apply no matter what view of investors you may hold (that is, owners or customers). By extension, however, I do not include the setting of fees as an example of a conflict of interest because investors can observe their net return after fees so that the fee charged is not in any sense a hidden action on the part of the adviser. Indeed, advisers can be predicted to charge the fee that will maximize their profit, given investor demand for mutual funds and their cost structure for supplying these services. And this fee, of course, is positive and larger than the zero price investors would like to pay for these services. But suppliers and demanders will conflict in this way in any market for services. I believe the question of the level of fees can more appropriately be addressed by studying the characteristics of investor decision making, an issue taken up later in the paper.

The conflict between investors and advisers, then, occurs because the two parties will in general have differing objectives. The investors would like the agent to invest their money to maximize their investment objective. Typically, investors are modeled as valuing higher returns but disliking risk. This model leads to a simple investment objective of maximizing returns for given levels of risk, or choosing portfolios on the efficient frontier. In practice, this model is often extended to include investor hedging demands and other components of their portfolio so that they seek maximum risk-adjusted

performance within a given style or asset class. The investment adviser, as the agent, desires to maximize her own profit and would prefer not to exert much effort (that is, cost) in fulfilling her role.⁷

While there is little empirical understanding of the underlying cost structure of advisory firms, features of their revenue generation can be observed. The standard contract in the mutual fund industry compensates the investment adviser with a percentage of assets under management (AUM). In many fund families, this amount is modified by reducing the fee percentage as AUM reaches various break points. In a few funds (only 1.7 percent), an explicit component ties adviser compensation to performance relative to a passive benchmark (see Elton, Gruber, and Blake 2003). In the interest of simplicity, this discussion will concentrate on a fixed-percentage fee contract. Under this compensation scheme, an adviser has an incentive to grow AUM. This objective can be achieved by taking actions that will increase new asset flow to the fund and/or increase the return earned on existing assets. This incentive to increase AUM will continue without bound if there are constant returns to scale in advisory services, and advisers would not ever seek to close a fund. If, as some argue, there are decreasing returns to scale beyond a certain point, there will in fact be an optimal scale for the fund from the adviser's perspective.⁸ The adviser would have an incentive to close the fund once its assets reached this level.⁹

It is important to note that the form of the fee compensation to advisers is already a step toward minimizing conflicts of interest. The current contract induces an explicit incentive on the part of advisers to post good performance. This incentive is reinforced by the empirical fact that the flow of new assets from

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4. 12b-1 fees are paid out of fund assets to market or distribute fund shares. The predominant use of 12b-1 fees is to compensate brokers for selling fund shares. "Soft dollars" refers to the practice of paying full price for stock trade execution and receiving research for free in return.
 5. Rasmusen (1988) discusses the relative benefits of stock versus mutual banks, concluding that in many cases the mutual banks will be less efficient. Hermalin and Wallace (1994) test the efficiency of stock-owned banks versus mutual banks and find that, controlling for lines of business, stock banks are more efficient and more likely to remain solvent. This finding does not imply that mutual ownership of advisory firms will necessarily induce inefficiencies, but, given the research on banks, it is a distinct possibility.
 6. Whether or not fees have declined is not central to my argument, but I do believe a good case can be made that both loads and operating expenses have indeed fallen over the past twenty years. See Investment Company Institute (ICI) (2004).
 7. In the discussion that follows, many of the decisions will be made by the fund manager, an employee of the advisory firm. To simplify this analysis, and because little is known about manager compensation, I assume that fund managers act in the interest of the advisory firm. This assumption is not unreasonable since an employee's wages will in general be designed to align the employee's incentives with the maximization of firm profit. Calls for more transparency regarding manager compensation have been increasing lately, and this information, if disclosed, could add another layer to the analysis of conflicts of interest.
 8. Many academic papers assume decreasing returns to scale, including Berk and Green (2002), while practitioners point to the difficulty of outperforming the market when fund size increases.
 9. Thus it is not necessarily true as some (including *Money* magazine) suggest, that fund closures represent an instance of an advisory firm forgoing its own profits to secure high returns for fund shareholders.

retail investors is largely driven by performance. The fee structure implies that advisers have no incentive to take any actions that reduce performance without a source of countervailing profit. For example, while the fee decreases net performance and future AUM, advisers have an incentive to increase fees because the reduction in future AUM is more than offset by a higher fee percentage.

So what are the conflicts of interest that lie at the root of the investor-adviser relationship? Certainly the market-timing and late trading charges that surfaced in 2003 are the most visible examples. But the potential for other problems exists as well. This section proposes a simple typology of the potential

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conflicts of interest in mutual fund management in order to provide some structure to the analysis of possible regulatory solutions.

Unequal risk tolerance. If the risk tolerances of fund investors and the advisory firm differ, the adviser has an incentive to pursue a different risk-return strategy than would be optimal for investors. Consider the simple example of a risk-neutral adviser and risk-averse investors—a reasonable assumption when the advisory firm is a publicly traded corporation. The adviser, maximizing expected profit, would maximize expected return and give no consideration to the riskiness of this strategy. In the limit, he might even be tempted to invest only in the one stock that he perceives to have the highest expected return.

Several ICA rules appear to be attempts to address this type of risk alteration and make the most extreme forms of it illegal. Section 13(a) prohibits a fund from becoming nondiversified or to deviate from any statement regarding policy made in the prospectus while rule 35d-1 states that fund names that suggest investment in a particular type of asset must have at least 80 percent of their holdings in accordance with the asset type or geographic location mentioned in the name. These rules act to limit fund managers' ability to claim to be one type of fund and then implement another strategy—for example, the ABC Fixed Income fund invests predominately in

Chinese equities. And the diversification rule would make a manager liable for the extreme action of putting all assets into one stock. However, the unsurprising result of this rule is that fund names chosen by advisory firms are largely uninformative with respect to issues of investment allocation within asset classes.¹⁰ Thus, the rule does nothing to stop a manager from shifting the risk-return profile toward his preferred level (that is, all in stocks as the name claims, but in, say, technology stocks alone).

Gaming investor flow patterns. The incentives to alter portfolio risk away from investor preferences can also arise from investors' flow allocation patterns. The more we learn about the dynamics of fund flow, the more specific incentives we can map out for advisers. Here are two examples based on well-established investor flow patterns.

Evidence suggests that investors use style categories to make investment decisions.¹¹ For example, a typical allocation decision might be limited to choosing among growth funds or selecting the best small-cap value fund. Given this tendency to sort funds into style groups, advisers might find it profitable to “game” the classification system. In a nutshell, advisers would market themselves as one style while pursuing another portfolio strategy in which expected returns are higher. As the example above shows, this strategy can be easily pursued without violating the ICA as long as the fund name and prospectus statement are vague enough. Such a strategy will improve an adviser's chance of outperforming rivals within his stated style and thus attracting new assets. Empirical research has found evidence of such gaming. For example, Chan, Chen, and Lakonishok (2002) report a correlation of 0.7 between past and future styles for all funds as a group, with style changes occurring most frequently among poorly performing funds. A well-known example of style shifting occurred in Fidelity Magellan in the fall of 1995, when fund manager Jeffrey Vinik allocated nearly 20 percent of the fund's assets to fixed income. Unfortunately for him, the bet went bad, and Magellan's subsequent poor performance cost the fund assets and Vinik his job. In this case, investors learned of the shift through Magellan's poor performance over the next several months. Even if Vinik's bet had paid off, many investors were concerned that he was essentially timing the market, which was not what they hired him for. Such style drift still happens today.¹²

Since the initial analysis of the convex, winner-take-all nature of the mutual fund flow tournament, researchers have investigated whether fund managers take on additional risk when they find themselves underperforming their competitors midyear,

as the incentives of the tournament would suggest.¹³ With this pattern of flow allocations, advisers of funds in the top few performance percentiles of returns have an incentive to reduce risk for the remaining period and solidify their lead while advisers of less successful funds have an incentive to increase risk in an attempt to move up in the final rankings. Since the existing empirical evidence on this issue is mixed, the jury is still out on whether such risk shifting is economically significant.¹⁴ My guess is that we do not yet have a detailed enough understanding of flow patterns to conduct powerful tests of manager allocations and incentives.

The real harm of any of these risk-shifting actions is that they expose investors to additional risk or to a different type of risk without their knowledge. SEC disclosure rules require mutual fund managers to report their holdings semiannually, but aside from these two snapshots, investors in many funds do not know the magnitude and style of their manager's tilt. However, the advent of independent style categorization by firms such as Morningstar has reduced the gains to gaming because advisers cannot self-determine the style category in which they will be compared. In addition, as in the Magellan case, analyzing fund returns over relatively short periods of time can identify some dramatic changes in style or risk.

Cross-subsidization. As noted above, no adviser would have an incentive to take actions to reduce the performance of a fund without having an offsetting increase in profit. The fact that advisory firms set up multiple mutual funds of various styles and serve different clienteles (individuals, hedge funds, and corporate clients) provides an opportunity for cross-subsidization of profits.

The opportunity for cross-subsidization of advisory firm profits across funds sponsored by the adviser was behind a great deal of the much-publicized market timing and late trading agreements. Advisory firms allowed high-frequency trading in some funds in return for parking assets in other funds. Before the agreement was discovered, it cost the advisory firm

some small performance drag via dilution in the timed funds while it received as revenue the management fee on the new assets in the other funds. Without the ability to collect the management fees on these other investments, the fund company would receive little or no benefit from allowing the timing. Indeed, in the cases where there has been no offsetting benefit to the advisory firm, the timing appears to have occurred by flying under the radar of their monitoring systems (for example, timing trades were bundled with other trades and so were not identifiable by the advisory firm when they were received).

The various client types that mutual fund advisory firms court and serve also provide an opportunity for cross-subsidization. In addition to more traditional situations in which one arm of a firm is involved in investment banking serving corporate clients while another arm manages assets, the rise of defined contribution and 401(k) plans means that mutual fund advisers now actively solicit advisory business from corporations—some, the very same corporations in which they hold stock as part of mutual fund portfolios. The adviser can use his shareholder voting rights, typically on a shareholder or management proposal, as a way to gain or keep a large corporate client. Proposals to declassify the board of directors or rescind a poison pill are believed to increase firm value by strengthening the firm's governance structure or removing hindrances in the market for corporate control. A vote with management against such a proposal is then seen as decreasing value.

As with the market timing agreements in which hedge funds assets were the source of profit, the advisory firm again faces a customer controlling a large amount of assets. The termination of a 401(k) contract would result in a large revenue loss while the drag on fund performance, even if it causes a decrease in fund flow, would likely be relatively small. Thus, the potential for gain surely exists. However, there is no evidence of widespread use of voting rights in ways that decrease firm value and harm investors.¹⁵ This lack of evidence may well be

10. Funds do generally find it worthwhile to identify themselves according to asset class—equity, fixed income, etc.

11. See Del Guercio and Tkac (2003). Flow to a style category is a significant determinant of individual fund flow. Also see Barberis and Shleifer (2003).

12. For examples of recent style drift, see Wolper (2004).

13. Sirri and Tufano (1998) first documented the convex nature of the cross-section of mutual fund flows.

14. Brown, Harlow, and Starks (1996) and Chevalier and Ellison (1997) find that managers shift the riskiness of their portfolios midyear while Busse (2001) and Koski and Pontiff (1999) argue that the empirical relationship between performance and risk is driven by methodology or mechanically by flows. Chen and Pennacchi (2000) provide an alternative test based on tracking error.

15. See Romano (2002) for a survey of the literature on proxy voting, institutional ownership, and the impact of implementing confidential voting. The most direct tests, using actual shareholder votes, have not found that financial institutions are more likely to vote with management than nonrelated shareholders or that financial institution voting behavior is changed in the presence of confidential voting.

attributable to the fact that, outside of immediate corporate control events, both the cost in terms of impact on stock value as well as the gain (pleasing management) are small.¹⁶ Thus, any economically significant damage is likely to occur only in the relatively rare instances of a merger or hostile takeover. Perhaps the most well known example of such alleged action was the recent voting by Deutsche Bank in the proposed merger of Hewlett-Packard (HP) and Compaq.¹⁷ Future instances of this type of behavior will be more easily identified because funds are now required to make available their proxy voting guidelines and records.

Many people have expressed dismay that the massive growth of the mutual fund industry, combined with the assumption of economies of scale, has not delivered drastically lower fees.

What's the Harm?

In each of these cases, it is clear what the adviser is gaining by engaging in these activities: additional revenue and profit. But what are fund investors losing? What is the harm in the various actions described above? In some cases it is an opportunity cost and not an out-of-pocket cost. For example, in the case of differing risk tolerances, the manager might well take on a level of risk that is suboptimal from an investor's point of view. The cost to investors here is one of expected utility loss—an opportunity cost versus their optimal combination of risk and expected return. To be sure, such a cost is real to an economist. But it would be difficult to measure or compensate primarily because the notion of risk is an *ex ante* one. The portfolio the manager chooses may expose the investor to more risk than she would like, given the expected return performance, but *ex post* might experience a good outcome. In this case the investor gains, *ex post*, versus the portfolio she would have chosen, but the manager nonetheless exposed her to what she perceived as an unacceptable level of risk. Harm has been done, but the damages are not easily quantifiable even though the portfolios may be easily valued in dollar terms.¹⁸

In other cases, the costs to shareholders are more easily quantified. Market timing using mutual

funds imposes two types of costs on other shareholders, and both such costs will hurt fund performance in up markets. First is the additional cost of managing the cash inflow and outflow associated with the timing. Advisers might respond to this increased volatility of flows by holding a larger cash cushion, which will lower an equity fund's return in up markets. Alternatively, advisers might increase transactions of the portfolio securities in order to invest new money and fund redemptions. This action, of course, imposes brokerage commissions and price pressure costs on the entire portfolio. Finally, an alternative way fund managers manage flows is to contract for insurance in advance with another party, which purchases or redeems shares in order to smooth daily net cash flows.¹⁹ But as with all insurance, there is a certain payment that is exchanged for the protection from flow volatility, and so the result is that even this method will impose some cost on the portfolio.

The other component of the harm done to other shareholders is a dilution effect. Market timers buy shares in the fund when it is likely to increase in value and sell their shares when it is likely to decrease in value.²⁰ Since the advisers cannot immediately invest this additional flow in the underlying portfolio securities, the assets are held in cash, at least for the short term. This cash holding dilutes the value of previously purchased shares when the timers have skill. This type of dilution naturally occurs every day with the purchase and redemption of fund shares. But unlike liquidity traders, whose activity is uncorrelated with the return on the fund, skillful market timers purchase before an up day and sell before a down day and so decrease the value of existing shares. Liquidity traders, on the other hand, may purchase shares before a down day, thus delivering a benefit to other shareholders because the decline in the portfolio's value is muted by their contribution to the zero return cash position. Because their trades are uncorrelated with market movements, liquidity traders do not exert a net dilution cost to other shareholders on average and over longer holding periods.

The difficulty is measuring these costs occurs in identifying the affected investors and attributing costs to various trades. The very features of mutual fund distribution that allowed some timers to avoid detection by fund managers makes it costly to document the shareholders of record as of each date on which the timing trades occurred. Thus, identifying fund owners would require cooperation and data management across all fund distributors. To arrive at a calculation of damage to these investors, a

determination must be made as to which trades were timing trades in order to calculate what the net asset value would have been the following day without the timing purchases.²¹ Moreover, determining the amount of brokerage fees or additional cash holdings or payments to smooth cash flow that are the response to timing trades alone would likely be a controversial task because each decision is the result of multiple inputs and not a response to timing alone. Further complicating matters are the down markets during the 2000–02 period. Shareholders in equity funds holding extra cash cushions because of timing during this period were actually benefited by the additional cash, not penalized. Indeed, the intricacies of the calculations are reflected in the fact that settlements with the SEC leave the calculation of damages to be determined later.

Methods of Reducing Conflicts of Interest and Proposed Legislation and Regulation

As noted above, some ICA and additional SEC rules already address issues related to some of the potential conflicts of interest. And violations of existing rules such as late trading, allowing market timers contrary to stated fund policy, and fund trading by individual managers have been uncovered and are being prosecuted by states' attorneys general and the SEC. To the extent that advisory firm employees now perceive a higher probability of being caught (and receiving significant penalties thereafter), the current scandal has its own deterrent effect on future misconduct. Indeed, advisory firms have responded by implementing new programs to monitor fund trades in an attempt to detect timing, by strengthening their stated policies on market timing, and by disciplining or firing employees (for example, fund managers) or forcing them to resign. It seems safe to predict that this particular brand of misconduct will not occur in the

future. But the underlying conflicts of interest and potential for other types of misconduct still exist. How might these conflicts be reduced?

Compensation-based solutions. Standard principal-agent theory suggests that one avenue is alignment of incentives via a compensation contract between investors and advisers in which advisers are paid on the basis of performance. To some extent, this compensation-based method is already in place. Advisory fees are paid as a percentage of assets under management, and these assets grow both through return performance and new asset flow. The return performance is positively correlated with the objective function of current shareholders while the attraction of new assets is directly related to whether the advisory firm succeeds in offering a product that investors value. No compensation scheme is perfect, however, and this case is no exception. As noted in the previous section, there are still opportunities for the manager to game the compensation system by altering the risk of the portfolio.

Would more explicit performance-based fees help solve the problem? The answer is no. Such a system imposes the chosen benchmark index as a primary objective for the management of the fund. The heterogeneity across investors makes any one benchmark unlikely to align the adviser's objective with that of each investor. The agency problem between one advisory firm and thousands of investors cannot be solved via compensation unless those investors are fundamentally similar. More important, however, is the observation that a variant of benchmarking is already operating through fund flows. Aggregate flow to funds in a given style has been found to be a significant determinant of individual fund flow. Thus, investors are indeed largely comparing funds within a given style and allocating flow to the better performers. This form of comparison is further strengthened by investors' use of Morningstar ratings, which are

16. See Karpoff (1998) for a survey of the extensive literature on stock price reaction to shareholder activism. The majority of research suggests that shareholder proposals have little or no impact on firm value.

17. In 2003, the SEC imposed a \$750,000 penalty on Deutsche Bank for not disclosing to its advisory clients that it was representing HP in the merger talks. Deutsche Bank Asset Management initially voted the proxies it controlled against the merger but switched its vote after a presentation by HP and being informed that Deutsche Bank's investment banking arm was representing HP. See www.sec.gov/nrnews/press/2003-100.htm.

18. Several readers have suggested that, in this case, investors would not seek to recover damages because they care about additional risk only when the investment turns out badly.

19. ReFlow is one example of such an insurance provider; see www.reflow.com.

20. The damage done by late trading (that is, trades that were put in after 4:00 p.m.) is similar in that on days where postclose news drives the value of the portfolio up, these favored traders will purchase shares and vice versa for news that will decrease the value of underlying securities.

21. With information available on individual investors' trading histories, it may be relatively easy to classify certain trades as timing trades. But should all purchases on a day that shows a great deal of timing activity be classified as timing related? While the most profitable, and least risky, timing strategy is to trade frequently, the infrequent timer cannot be ruled out.

now style-based. Flows effectively recreate an implicit performance fee, with the average fund in that style as the benchmark to beat. The attractive feature of the incentives induced by flows is that they are constantly responsive to the preferences of investors in the marketplace. If a new dimension of style becomes important to investors (say, exchange rate exposure, in addition to the popular capitalization and growth/value distinctions), flows would begin accruing to funds in relation to their performance along this dimension as well. No explicit performance-based fee can be as flexible to the demands of investors.

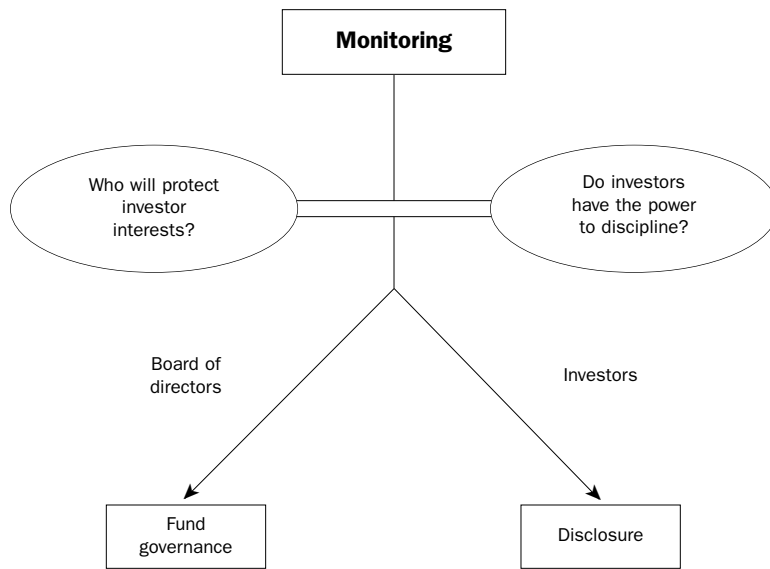
Separation of functions. Another alternative that has seldom been proposed, but which can reduce

To the extent that advisory firm employees now perceive a higher probability of being caught, the current scandal has its own deterrent effect on future misconduct.

the conflict of interests attributable to the possibility of cross-subsidization, is a separation of functions. This approach was a fundamental part of the settlement between the SEC and investment banks in 2003, under which the banks are required to separate the operations of their research and investment banking divisions.²² While not complete, since the firms still perform both functions, the separation aims to eliminate communication between the divisions so that the investment bankers cannot create fraudulent research to support their business deals. An analog in the mutual fund arena would be to separate the advisory firms so that each advises for only one fund or to disallow mutual fund advisory firms from managing corporate retirement assets. Both of these approaches would eliminate a potential conflict of interest, but neither is a reasonable solution. The benefits of mutual fund investing largely come from economies of scale in portfolio management, underwriting, record keeping, and distribution. To force separation and scale reduction would result in more costly service for investors in both the retail and defined contribution market. The fact that no separation-based regulation has been proposed is a welcome sign that regulatory authorities and legislators understand that, when seeking to eliminate conflicts of interest, there are some costs that are not worth paying.

Proposed regulations and legislation. Congress and the SEC have suggested and are now considering various other remedies.²³ Many of these would reform mutual fund governance, emphasizing the structure and activities of boards of directors. Among the rules passed or up for comment at the SEC are proposals to require an independent board chairman, to increase the required percentage of independent directors from 50 percent to 75 percent, to provide independent directors with a staff, and to require the board to conduct yearly self-evaluations and report to investors on the reasonableness of approved advisory fee contracts. The stated purpose of the governance reforms is “to enhance the independence and effectiveness of fund boards and to improve their ability to protect the interests of the funds and fund shareholders they serve” (SEC proposed rule, Release No. IC-26323 at www.sec.gov). This proposal presumes that the investors rely on the fund board to provide protection from investment advisers. Clearly, the framework of investors as owners is at the root of such regulation. Investors as customers, with the ability to redeem assets at net asset value, do not rely on board protection. (Figure 3 illustrates the fundamental issue behind these two approaches to fund monitoring.) It is unclear that such reforms will provide them with any benefit above and beyond what they can achieve themselves. It is more likely that investors will not value the monitoring because they have no long-term interest that they cannot monitor themselves. The fact that these proposals will also impose costs on funds because they will require additional staffing and the resources to compile yearly reports means that investors will be worse off.²⁴

Similar concerns about the cost to investors can be raised regarding the proposed elimination of 12b-1 fees in the Mutual Fund Act of 2004. These fees are not hidden actions by the advisory firm; they are observed implicitly in the net performance earned on fund shares and reported explicitly as part of the expense ratio and in shareholder reports. Many academics have argued that these fees are a deadweight loss for investors, but this argument misses the point that 12b-1 fees are largely deferred payment for brokerage services (Investment Company Institute 2000). These brokerage services package together investment advice, information, convenience, and other intangibles, like reputation, that are of value to investors. The elimination of 12b-1 fees would impose costs on investors via an impact on the market for these services. Put succinctly, these valuable services will continue to be demanded and thus provided, and ultimately investors will

FIGURE 3**Two Approaches to Fund Monitoring**

bear the cost. Two obvious possibilities that might follow from the elimination of 12b-1 fees are increases in management fees to advisory firms and a shift to more fee-based broker-investor arrangements. It is not possible to eliminate 12b-1 fees and leave investors enjoying the same bundle of services at a lower price.

It may be helpful to consider the analogous practice of slotting fees and promotional allowances in the distribution of many consumer package goods, such as soft drinks, cereal, yogurt, or soup. Payments are made by manufacturers to wholesale and retail distributors to acquire shelf space and to run sales and other product promotions. In grocery stores, shelf space is scarce, with over 100,000 products competing for 40,000 slots in a typical store. It is no surprise then that shelf space commands a positive price in the form of slotting fees. In the mutual fund industry, the constraint may not be a physical one on mutual fund distribution space, but there certainly is a scarcity of investor attention and interaction.

Thus we should not be surprised that resources will flow to brokers and financial advisers who are the point of contact for investors. But brokers operate in a competitive environment, as do grocery stores. In their own quest for customers, brokers supply a variety of services that customers value. For grocery stores this activity results in a natural foods section, freshly made sushi, free recipe cards, and samples of new products. Similarly, brokers offer financial planning, information, and advice that both reduce investor search costs and supply expertise that many investors do not possess.

It is important to note that brokers will strive to meet their customers' demands just as retailers will pull products that do not sell from the shelves and replace them with products their customers prefer. A system of 12b-1 fees to pay for distribution, or the other arrangements made to obtain placement on select lists, does not control the opportunity set of funds that investors can choose from. Investor preferences and demands continually drive the mix of

22. The other well-known financial markets example of such separation of functions was the Glass-Steagall Act, which separated investment and commercial banking.
 23. See www.sec.gov/rules/proposed.shtml for current rule proposals at the SEC, Fitzgerald.senate.gov for the Mutual Fund Reform Act of 2004, and www.baker.house.gov for the Mutual Fund Integrity and Fee Transparency Act of 2003.
 24. Interestingly, in 1980 the SEC proposed a modification in fund governance, the unified investment form, that would have done away with fund boards and shareholder voting. Ultimately, the agency decided that such a move would leave shareholders unprotected, the same argument used today to support increasing the functions of fund boards. See SEC (1992).

products and services in the marketplace. An example of recent innovation in this arena is the 12b-1 fee rebate program currently offered by E*Trade. E*Trade has built a business catering to price-sensitive retail investors, and now this price competition has been extended to mutual funds.

Thus, investors who choose to purchase mutual funds through brokers pay for the valuable services through 12b-1 fees. But what of the fact that most broker-sold mutual funds offer various share classes, each with a different combination of loads and 12b-1 fees? All of these investors are receiving the services of the broker. Is there an inequity lurking here in that some investors pay more than others? There is

Market timing using mutual funds imposes two types of costs on other shareholders, and both such costs will hurt fund performance in up markets.

no inequity if we correctly view the current system of multiple share classes as a rich collection of pricing options. Depending on their investment horizon (not just their long-term horizon but their expected horizon in that fund), investors will find themselves better off in different share classes, paying different levels of 12b-1 fees.²⁵ To eliminate these fees would restrict advisory firms' ability to offer such a large menu of choices; effectively, only share classes with purely back-end or front-end loads would survive. A reduction in the menu of pricing options would undoubtedly make some investors worse off (that is, they would prefer a share class that is no longer offered). As argued above, the investment advice and services supplied by the brokers would continue to exist but would be paid for via different mechanisms, such as fee-based financial advisers.

A practice that has also come under scrutiny and may be facing potential elimination is the use of soft-dollar brokerage agreements. While the total brokerage payments are observable (implicitly as a part of net performance and explicitly in a fund's Statement of Additional Information), the portion of brokerage commissions that is being used to fund non-trading-related activity is hidden from investors. This issue is difficult to analyze especially because so few statistics on soft-dollar payments and services are available. But some inquiry into the economics

underlying the use of soft dollars will serve to further the discussion of their overall impact on investors. First, to the extent that soft-dollar brokerage is used to circumvent the NASD cap on 12b-1 fees and compensate brokers for distribution of fund shares, some fraction of soft-dollar expenditures can be eliminated by a removal of this regulation. The other use of soft dollars is to purchase research, both independent and that produced by the brokerage firms themselves. A common criticism of this practice is that investors have a right to know how the advisory firm is spending their money. As noted earlier, the view of investors as customers effectively negates this line of inquiry and instead focuses on the economic underpinnings of the provision of advisory services.

The open question is, why do advisory firms fund research using soft dollars? One possible answer is that soft dollars are preferable since they are not included in expense ratios. Firms can then "hide" these costs from investors. But soft dollars do cause a drag on net performance. And, as we shall see in the next section, investors make decisions based on performance and not expense ratios. So it is difficult to see what incentive advisers have to overspend on research. Is there then an economic rationale behind soft-dollar arrangements? Indeed, several potential economic scenarios could explain the existence of soft dollars.

Soft dollars are essentially tying agreements. Brokerage firms charge mutual fund advisers for a package including both trade execution and research services rather than pricing each component separately. Firms can use tying to price discriminate when they face heterogeneous customers or to try to deter the entry of potential competitors. Additionally, tying can be an efficient outcome when there are production complementarities—when the cost of producing both goods is lower than the sum of the cost of producing them separately. Finally, tying may be the equilibrium result of a competitive game in which firms add products in an attempt to differentiate themselves from rivals.

Which of these reasons is likely behind soft-dollar usage by mutual fund advisers? A thorough study would require in-depth institutional knowledge of the soft-dollar agreements and data on their usage across the industry that is beyond the scope of this paper. However, I think the most plausible explanation, given my current knowledge, is that soft dollars are the result of brokerage firms' competition to differentiate. To the extent that some brokerage firms can offer proprietary research, they will have some monopoly power. But any tying of outside

research resources (for example, Bloomberg terminals, independent research) would of course be copied by all competitors, and the result would be widespread usage of soft-dollar agreements. If this is indeed the explanation, it is likely not the case that soft-dollar agreements are inefficient or that economic rents are accruing to the brokerage firm. Provided there is competition for trade execution and the majority of research resources can be competitively supplied, brokerage firms will not earn economic profit on the tied products and mutual fund advisory firms will not be paying prices higher than they would in a market where the services were sold separately.

Perhaps this is not the economic story behind soft dollars and it is price discrimination or entry deterrence that is driving the practice. I would welcome data and analysis to differentiate among potential explanations.²⁶ The discussion here highlights the need for an economically rigorous inquiry. The answer to the question of whether investors would gain from the elimination of soft dollars is not obviously affirmative. Moreover, this important question is the first one a policymaker should answer when contemplating proposed regulation and the first question that an investor needs to answer in deciding whether he would prefer to restrict his investment to funds with no soft-dollar usage or only those that disclose their soft-dollar payments.

Monitoring and information disclosure. Increased monitoring of agents by the principal is, in addition to compensation, the other widely prescribed solution to agency problems. Along this line, other proposals call for increased disclosure by advisory firms, including more frequent disclosure of portfolio holdings, individual manager compensation, trading by managers, transactions costs, and proxy voting. This increased disclosure would certainly provide investors with more information on adviser activities. The increase in available information is then presumed to result in increased monitoring of advisers by investors. Using this information, each individual investor can enact his own implicit compensation contract by directing his investment allocations to the managers he prefers and away from the managers he deems inferior. The aggregate impact of these investor decisions will serve as an implicit compensation contract with advisers, one that reflects the assessments of investors on

average. These incentives will then discipline managers from taking actions that are not in their investors' interests.

As with soft-dollar brokerage, the first question to ask is whether the proposed disclosures will have any benefit to investors. Will they in fact help to remedy any of the conflicts of interest highlighted in the previous section? Certainly more complete information on portfolio transactions would allow investors to perform much more powerful tests to identify and evaluate portfolio risks and attributes. To the extent that investors then use this information to direct their investments, such disclosures could help minimize style tilting and risk shifting by portfolio advis-

The fact that no separation-based regulation has been proposed is a welcome sign that regulatory authorities and legislators understand that, when seeking to eliminate conflicts of interest, some costs are not worth paying.

ers. Disclosed proxy voting would indeed allow for monitoring to confirm that funds are not voting contrary to the interests of investors. Again, some enforcement or punitive mechanism, such as investor flow, would need to support such monitoring. It is much less clear how disclosure of manager compensation would directly aid in reducing conflicts of interest. As noted above, manager compensation can be expected to be correlated with advisory firm profitability, so while there could be incentive effects resulting from idiosyncratic aspects of manager compensation, they are likely to be second-order. Finally, fee information, to the extent that it is less variable than security returns, could be helpful not in reducing conflicts of interest but in aiding investors in forecasting future net fund performance.

Once the magnitude of the benefit is established, analysis turns to the cost of the monitoring. Investment advisers typically cite the cost of dissemination as prohibitively expensive and note that the cost will be borne by the fund management and, ultimately, by shareholders. Certainly there are dissemination costs, which may be larger or smaller

25. For an example of the comparison across share classes, see Reid and Rea (2003). Using standard assumptions on load and 12b-1 levels, C shares provide the highest annual return on holding periods of one to five years while A and B shares yield higher net returns on horizons of seven to fifteen years.

26. The paper by Horan and Johnsen (2003), of which I recently became aware, is along these lines.

depending on the particulars of the disclosure regulation (paper versus electronic, all shareholders versus available to all shareholders, frequency, etc.). But there are other costs to be concerned with. With respect to portfolio disclosure, these buy-sell decisions clearly represent the value-added of the adviser, the very service he is selling. If too much information about his strategy (to adopt a simple term) is released, the strategy could be duplicable, thus destroying much of the adviser's human capital.²⁷ Even if the strategy is not forecastable and thus duplicable going forward, the possibility exists of front running, trading ahead of adviser transactions as they amass holdings over a period of time.

Brokers will strive to meet their customers' demands just as retailers will pull products that do not sell from the shelves and replace them with products their customers prefer.

This problem is, of course, easily solved with lagged disclosure at sufficiently low frequencies. Here, the monitoring interests of the investors must be weighed against the interests of the adviser as a business enterprise. Notice also that it is not in an investor's best interest to have his portfolio front run.

What do investors really gain from the portfolio disclosures, and what is the lowest frequency at which these needs can reasonably be met? I do not think that a credible case can be made that investors would value portfolio disclosure on a daily or weekly basis, for example. The case for quarterly disclosure is much stronger. What is the optimal lag? Again, it does not seem that investors need this information in anywhere near real time to perform valuable monitoring of fund managers. If a major deviation in style, say, does occur, investors will find out with a maximum lag of six months (if it is quarterly reporting plus a quarter delay). One could argue that much damage could be done in six months, but would it? Knowing that investors will find out later disciplines advisers in and of itself. In addition, investors already have at their disposal daily net asset values for their funds. Analysis of the fund's return can identify the most egregious changes in style or risk. Issues like these, measuring costs and benefits, are central to an analysis of any proposed regulation, but there is, I believe, a more fundamental question regarding disclosure.

Can increased disclosure be supplied by the private market rather than mandated via regulation or legislation? Put another way, even if increased disclosure is deemed valuable, is there a need to write new disclosure rules? Proponents of proposed regulation argue that firms will not voluntarily disclose new information and that some information already disclosed, such as fees, needs to be provided to investors in a more useful format. But are these assertions true? Is there no incentive for advisory firms to disclose new information valued by investors? Can the private market not provide available information in the packages most useful to investors?

In fact, a rich industry of information intermediaries providing investors with data on mutual fund performance and operating characteristics—Morningstar, Lipper, *Money* magazine, etc.—already exists. The influence of these firms extends beyond their dedicated subscribers or users and into the mainstream investor community via their proprietary mutual fund ratings that appear in advertisements, software sold to financial advisers, and free Web content. The main focus of these intermediaries has been to distill and present the volumes of mutual fund performance and style data into a form that is valuable to individual investors. The results are style boxes, star ratings, select lists, and fact sheets with fund information presented in a graphically pleasing manner. Over time, Morningstar in particular has increased its fund information to include portfolio holdings (voluntarily disclosed), subadviser information, and fee breakdowns.

In the face of recent scandals, as more fund advisers want to signal that they look out for shareholder interests, the pressure will mount to supply additional information. Indeed, we would expect fund advisers of all stripes, not merely those that have the cleanest record or set of practices, to reveal information. A classic result from signaling theory tells us that as long as there is a spectrum of quality—in this case the amount of expropriating activity by advisers—then all suppliers will reveal their quality. Even advisers who fall into the middle of the spectrum and do not follow all of the industry best practices have an incentive to reveal information (that is, allowing managers to trade funds for their own account). Advisers choosing not to reveal information would risk being lumped together with the advisory firms that are the worst in the eyes of the investing public. Indeed, many fund complexes that are not under investigation have issued statements to investors regarding their policies on market timing, late trading, and so forth. And the firms that are under investigation are

releasing detailed reports to investors on their own internal investigations.²⁸ This disclosure is motivated by business interests, not regulation.

To be sure, much of this information is costly to collect and aggregate, but we are already seeing evidence that there are gains to doing so. Both *Money* magazine and TheStreet.com have conducted surveys of advisory firms concerning their governance and operating practices, and the results are prominently displayed and analyzed in their publications and on Web sites.²⁹ Even more recently, Morningstar has added Fund Fiduciary ranking, which assesses a variety of fund governance practices. In addition, organizations such as the Social Investment Forum have aggregated information, including proxy voting records and investment screening criteria, for a large number of socially responsible mutual funds. Investors who value this information do not have to incur the costs of finding and aggregating the information themselves.

The pressure that motivates such voluntary disclosure is individuals' willingness to withdraw or redirect assets away from advisers with poor governance, disclosure, and operational practices. Any additional penalty the capital market asserts on publicly traded advisory firms is really just a market assessment of the ultimate discipline that investors will exert.³⁰ Faced with these penalties, advisory firms have an incentive to disclose information and change to practices or fee structures that investors want. Thus, the likelihood of voluntary disclosure is dependent on the actions of individual investors.

Many have argued, and the SEC seems to act under the assumption, that individual investors need to be protected via strong regulation while such protection is not necessary for more sophisticated investors such as hedge fund clients. This view implies that investors require the SEC to monitor and discipline mutual fund advisers in ways they cannot. With respect to proposed rules mandating disclosure, this position seems self-contradictory. The power of any disclosure, regulated or voluntary,

relies on the ability of individual investors to use the disclosed information to penalize firms. Thus, it cannot be argued that regulated disclosure is necessary because investors will not sufficiently discipline managers of their own accord. Unless the regulation also includes rules on actions and policies, and a high degree of agency monitoring and enforcement of such rules, it will rely solely on investor action. In other words, if we truly believe that individual investors will not discipline managers, then even mandated disclosure is not likely to change the behavior of advisers or the price of advisory services.

Therefore, the question of how investors wield their power is key to the debate over whether additional regulation is necessary and, if so, what form it should take. If investors are deemed unable to take action in their own best interests, then we are led to policies that not only mandate adviser behavior but dictate investor behavior as well. If, on the other hand, investors are capable of making decisions that promote their own interests, then additional regulation is largely unnecessary. The next section presents evidence on investor decision making, how investors use their power to influence adviser behavior, and some interpretations of these findings for policy.

The Power of Investors

Investors, as demanders of advisory services, can pressure advisers to deliver the services they prefer at prices they are willing to pay. The mutual fund industry is, in this sense, no different than any other competitive industry. Individual consumers exert their power via their aggregated purchasing decisions in a marketplace replete with choices. As of 2002, some 7,267 equity and bond mutual funds are available to investors, offered by 431 different fund complexes (ICI 2001a, 2003). While investment styles and objectives differ, each niche offers ample choice to U.S. investors.³¹ In such a marketplace investors exert market power as a group to

27. See Myers et al. (2001) for estimates of the returns available on funds that mimic the transactions of actively managed mutual funds.

28. See "Update from the Independent Trustees of the Janus Funds" at ww3.janus.com.

29. Interestingly, not all advisers surveyed submitted responses, but in many cases the lack of response could be due to the short time frame allowed for answering the survey. But I would expect the number of nonresponders to drop, at least among the firms that receive a substantial amount of revenue from retail mutual funds.

30. See Karpoff and Lott (1993) and Beatty, Bunsis, and Hand (1998) for studies of reputation losses due to SEC enforcement.

31. To argue that investors do not have power in such a market requires the documentation of market frictions or barriers to capital mobility that stop investors from allocating their money to the preferred funds. Such a barrier does exist in the form of a capital gains tax on mutual fund redemptions. But this friction is likely to be less important than one might think. While investors may be hesitant to redeem shares because of tax liabilities, they can always begin allocating their stream of future investments to different funds. Nonetheless, eliminating the tax on mutual fund investment would increase investors' power.

guide the invisible hand of the market for investment services.

The important empirical questions are, how and to what extent do investors exercise this power? In other words, which fund characteristics influence investor flow, and how homogenous are investors in their decision making? Fund characteristics that guide flow will create a scheme of implicit incentives for fund advisers through the asset-based fee structure. The degree of homogeneity of investor decision making determines the power of investors, in aggregate, to induce economically powerful incentives. The more investors agree on a desirable portfolio attribute, the more flow will accrue to funds

The question of whether investors would gain from the elimination of soft dollars is the first one a policymaker should answer when contemplating proposed regulation.

possessing that attribute and the more advisers will lose when not providing that attribute.

How do individual investors allocate their investment capital? The academic literature on fund flows is replete with papers demonstrating that mutual fund investors respond strongly to past fund performance.³² More specifically, net flow to equity funds is positively related to raw returns and popular rating measures, such as Morningstar star ratings, and unrelated to risk measures such as tracking error (see Del Guercio and Tkac 2003, 2002). As first noted by Sirri and Tufano (1998), one of the most well known features of this relation between flow and performance is that funds at the bottom of the performance spectrum in any year experience little if any net outflow while funds performing above the 90th percentile receive large amounts of net inflow. More recent work tracks flows to individual funds over time and finds that investors exert economically significant penalties (that is, outflows) on funds that decline in performance while rewarding funds that experience performance upgrades with additional flow (Del Guercio and Tkac 2003). The positive effect from performance improvement, similar to that in Sirri and Tufano, is found in funds that “win the tournament,” but there seems to be no economically significant punishment for a slight decline once a fund has been in this esteemed

group. Thus, the effect of performance on flow is persistent and not limited to the most recent month or year of returns. The relation between performance and flow is also very strong in the cross-section, suggesting that flow provides important economic incentives for fund advisers.³³

Thus, net performance matters to investors, but do they pay explicit attention to fees? Barber, Odean, and Zheng (2002) study equity funds and find that flows in their sample are negatively and significantly related to loads but not significantly related to expense ratios. This finding is echoed in Del Guercio and Tkac (2003), who find that expense ratios, 12b-1 fees, and the existence of a load are not related to the abnormal flow experienced by funds that change Morningstar rating groups. As a whole, investors appear to be somewhat vigilant with respect to the load component of fees but seemingly ignore expense ratios in that they do not allocate more flow to funds with lower expense ratios.

This characterization of investors as rewarding performance without penalizing risk and having a willing ignorance of fee levels implies that investors, in aggregate, are not using their allocations to give advisers, in aggregate, an incentive to reduce fees or keep portfolios aligned to their stated style. Instead, advisers appear to have an incentive to post good performance and beat rival funds and to have the freedom to maintain or raise fees. Some researchers have interpreted these findings as evidence that mutual funds investors are wielding economically significant power but seemingly not to their best advantage; high-fee funds are not being punished with outflows while the worst performers continue to retain investment assets. Indeed, the very reliance on performance is at odds with the academic literature on performance persistence (see Carhart 1997). Such a reading of the data would argue that regulation is needed to protect investors from themselves.

But there is another, more reasoned, interpretation of the evidence that reaches a very different conclusion. The academic evidence represents a bird's eye view of the industry, a view that masks considerable heterogeneity across investors, decision-making costs, and important institutional details in the investment allocation process. For example, several attempts have been made to explain the lack of punishment of poorly performing funds. Among the proposed explanations are that tax lock-in effects cause investors to shift new allocations while not closing out poor fund positions and the observation that poorly performing funds are the ones most likely to change strategy and experience a performance

boost (see Lynch and Musto 2003). Finally, note that a reallocation of new contributions among long-term investors who are net buyers will decrease the weight of these poorly performing funds in an investor's portfolio and minimize any potential opportunity costs of reallocation. These alternatives indicate that there are valid institutional reasons why investors might behave the way they do and why their behavior might not be suboptimal.

A fundamental influence on investor decision making is the presence of decision and search costs. Current research along these lines formally models the distribution of search costs across investors in the S&P 500 index fund market (see Hortaçsu and Syverson 2004). This subset of funds is particularly interesting because index funds are perfectly substitutable. Thus, the dispersion observed in fees, and hence performance, is somewhat puzzling. Why would an investor pay an additional 40 or 50 basis points for the same portfolio services?³⁴ Hortaçsu and Syverson (2004) find that reasonable magnitudes of search costs can explain the observed price dispersion. Interestingly, their empirical estimates of search costs increase over the sample period, a result that they attribute to the recent entry of mutual fund investors with less expertise and higher decision costs.

Similarly important to the analysis is the heterogeneity within the population of mutual fund investors. They are indeed a varied group: 59 percent use financial advisers while 13 percent consult rating services. In addition, 52 percent of mutual fund shareholders primarily hold funds on their own while 48 percent of shareholders hold them through retirement plans. Of the former group, 71 percent buy through broker-dealers while 29 percent purchase shares directly from fund companies (see ICI 2001b, 1997). Many investors are responsive to fees, use sophisticated financial analysis to risk-adjust fund performance, or put all their money in Vanguard S&P 500 Index Trust (as recommended by academics nationwide). Some investors are more educated in finance and economics and, perhaps more importantly, have a preference for spending their leisure time increasing and practicing their investment-related skills. Other investors have heard the message of fund

companies everywhere that saving for retirement is important and mutual funds are a good way to achieve that goal. But these less knowledgeable investors have little investment expertise and are unwilling to acquire more perhaps because they are up against time constraints or are just uninterested in the details. This latter group, quite possibly the bulk of the mutual fund investing public, may be either unaware of the opportunity cost of altering their investment patterns or unwilling to devote resources to change. Either way, however, such a decision is rational given their set of information and skills.

This heterogeneity across investors can also help explain their behavior with respect to fees. In S&P

In the face of recent scandals, as more fund advisers want to signal that they look out for shareholder interests, the pressure will mount to supply additional information.

500 index funds, the difference in fees across funds is mainly due to differences in 12b-1 fees (see Elton, Gruber, and Busse 2004). As noted earlier, these fees largely go to brokers as compensation for fund sales and distribution. So the differences in S&P 500 index funds are real and reside not in the gross performance of the portfolio but rather in the distribution channel through which the fund is offered. The investors paying 12b-1 fees and loads for S&P 500 index funds are receiving more advice and information than do investors in direct-marketed, no-load funds. I find it hard to believe that these investors know that other lower-fee options are available and prefer them but are choosing not to take advantage of them. The brokers' expertise and handholding are clearly a service that some investors value. Multiple share classes and 12b-1 fees facilitate the purchase of these additional services. For investors who do not value such services, the no-load, low-fee funds in the market provide a

32. For some examples, see Sirri and Tufano (1998), Chevalier and Ellison (1997), Ippolito (1992), Patel, Zeckhauser, and Hendricks (1994), and Gruber (1996).

33. Del Guercio and Tkac (2002) find that roughly 51 percent of the variation in dollar flows across funds is due to recent performance and lagged fund flow. Lagged fund flow is correlated with performance farther in the past.

34. Elton, Gruber, and Busse (2004) report that 25 percent of S&P 500 index funds have an expense ratio greater than 59 basis points, a level commensurate with active management, and 41 basis points higher than Vanguard's well-publicized ratio of 18 basis points.

preferable alternative. In the mutual fund market as a whole, then, it is not surprising that fund flows are not negatively correlated with fees. As investors sort themselves based on their demand for investment advice, there will be a market for funds with fees at all levels.

Overall, I find nothing in the data consistent with the view that investors are irrational or in some other sense cannot look out for their own best interests. Rather, the mutual fund industry looks like many other industries that provide a variety of products and pricing structures to meet heterogeneous consumer preferences and budgets. It is not unlike the automotive industry in this respect. Not

The power of any disclosure, regulated or voluntary, relies on the ability of individual investors to use the disclosed information to penalize firms.

everyone drives the car with the lowest total operating cost. Consumers who prefer more style, features, or power willingly pay higher prices to drive the cars of their choice. The price-sensitive drivers do indeed purchase the low-cost, no-frills models. In aggregate, we would not expect there to be pressure on all car makers to reduce their prices and would not think of suggesting regulation that would interfere with market prices. Analogously, on the question of mutual fund fees, I do not view it as a problem that fees are at the levels they are; it merely represents the functioning of a relatively free market.

Some direct, though rough, evidence on investor rationality can also be found in the flow response to the announcement of market timing investigations and charges last fall. Several of the firms implicated experienced economically significant outflows over the five months following the allegations. Among those most hard hit are Putnam, Janus, and Invesco (AIM), with net outflows from equity and fixed income mutual funds of \$24 billion, \$12 billion, and \$6 billion, respectively.³⁵ Such market discipline has the power to deter future misconduct. Given an average industry management fee of 1.5 percent, these firms have lost approximately \$63 million of revenue this year alone. And a large portion of this revenue appears to have accrued to firms with clean records such as Vanguard, Fidelity, and American.

This trend suggests that (1) some investors care about the allegations of wrongdoing and (2) they will move their money to firms they find more trustworthy.³⁶

Armed with this knowledge of investor behavior, we turn back to the issue of disclosure. Would investors value more information about mutual fund operations and activities? First, consider how various investor types would use this information. Additional disclosure of soft-dollar brokerage, portfolio holdings, and proxy votes would likely not directly affect the investment decisions of the majority of investors. They rely on and pay financial advisers or brokers for processing such information and formulating guidance regarding fund allocation. A slightly more interested or financially astute group of investors would also not be likely to use the raw information directly but would be willing to pay for information aggregated and distilled by an intermediary, such as Morningstar or *Money* magazine. The most interested individuals would perhaps use the disclosed data in raw form, but this group would surely be the minority of investors. Therefore, it appears that no real demand exists for new forms of information other than that already being disclosed (for example, fees in dollar terms, brokerage costs in documents other than the Statement of Additional Information). This information, to the extent that it is used by most investors, is processed via intermediaries, be they brokers or information intermediaries. The private market seems well equipped to provide investors with the form of information they find most useful.

Investors might value disclosure of previously unobservable information if it helps to reduce the conflicts of interest highlighted earlier. Thus, a case could be made that investors would value disclosure of portfolio holdings to aid in monitoring risk as well as proxy voting. But, as discussed earlier, it is unclear that regulations to mandate such disclosure would be the optimal solution. The best indicator of the value of information is to see whether it is being supplied in the market. If investors as a group put a high value on such information and were willing to move investment allocations based on disclosure or the contents of the disclosure, fund advisers would find it in their best interests to supply the information. The fact that most funds have not voluntarily disclosed proxy and holdings information suggests that investors are not demanding disclosure. This behavior is not necessarily hard to understand. An estimate of the proposed restoration of market timing damages by Janus funds amounts to \$31.5 million in total but only “one cent or more” per

share.³⁷ With such a low value per investor, is it any wonder that investors do not find it worth the time and effort to monitor?

The onus on regulators proposing to monitor funds on behalf of investors is to demonstrate that governmental monitoring and enforcement is somehow more efficient than monitoring by individual investors. If individuals are not willing to pay with their own time and energy to monitor, the only way regulation can make them better off is if it can deliver value at a lower cost. But it is difficult to see how this could be the case. Mandatory disclosure imposes costs on all funds and all investors, even those who do not value disclosure. Moreover, mandated disclosure by its very nature cannot respond to the evolving informational demands of investors. Each regulatory change requires a thorough review and study by the SEC and countless hours spent by interested parties in researching the proposals and submitting comments. Layered over these costs is the ever-present drive for firms to lobby for regulation that will benefit them at the expense of their competitors. Such rent seeking wastes resources and contributes to the relative inefficiency of a regulatory solution.

Conclusion

Overall then, the answer to the question posed in the title of the paper, “temporary problem or permanent morass?” is yes. Mutual funds pose a temporary problem with respect to the current market timing and late trading charges. These particular forms of misconduct will largely be addressed via legal remedies and market discipline and are unlikely to occur again in the foreseeable future. Along these lines, there have been significant reallocations of assets away from firms that have engaged in these activities and into funds of firms who have clean records. The penalties to be paid in settlements with the SEC and various state attorneys general raise the cost of future violations while the increased investor focus and attention on manager actions increase the probability of discovery. The very occurrence of the scandal will likely prompt increased scrutiny by investors of all types, both individual and institutional. This scrutiny, along with the now higher expected cost of misconduct, will temper the behavior of advisory firms even in the absence of new regulations.

In the long run, however, mutual funds are a permanent morass. There will never be complete alignment of advisers’ and investors’ interests. In this respect, mutual funds are no different than any other service. There will always be a conflict between the profitability goals of producers and their customers, who wish to maximize their own surplus. This conflict is inherent in any interaction that involves the delegation of tasks and specialization of labor. The only way to eliminate such conflicts is a return to a world in which investors build and manage their own individual portfolios. This option is indeed available to investors right now. The fact that few (11 percent according to ICI)

When unfettered and free of frictions, a competitive marketplace will supply the products and services investors demand at the lowest possible price.

choose self-management over mutual fund investment is testament to the extraordinary gains from specialization and scale that mutual investment offers. Certainly no one would suggest that mutual funds be regulated out of existence because of the risk of misconduct by advisory firms. Since we are unwilling then to reduce risk to zero, the question becomes, what can be done to minimize the potential for conflict?

The best solution to such an agency problem is a pool of effective monitors armed with observable information on manager actions and activities. But who should these monitors be: boards of directors or investors themselves? And how should they get their information: through regulated disclosure or private market forces? These fundamental questions are at the heart of any policy debate.

I am of the opinion that investors are best viewed as customers of mutual fund services, so by far the strongest weapon investors have is their own demand. When unfettered and free of frictions, a competitive marketplace will supply the products

35. Data (as of March 2004) on fund flows by complex can be found at www.frcnet.com.

36. These flows represent mutual fund assets and do not include outflows resulting from withdrawal of institutional assets. In many cases these additional outflows are substantial as corporations and pension funds assess their potential liability from continuing relationships with firms under investigation.

37. Updates are available from the Independent Trustees of the Janus Funds at ww3.janus.com.

and services investors demand at the lowest possible price. With their power, investors can prompt advisory firms not only to offer funds in styles they prefer but also to disclose more information on portfolio holdings, proxy votes, soft-dollar arrangements, and anything else they feel would aid in monitoring a manager's actions. Much has been made of the high level of fees paid to advisory firms. But fees are not a conflict of interest except in the trivial sense: Firms would like to charge more and investors would like to pay less. The market interaction between the two groups sets an efficient

price level for investor services that includes not only portfolio management but also investment advice, convenience, expertise, and attaining a level of comfort.

In such a private market setting, investors themselves can decide which risks are worth monitoring more aggressively and which, while present, are not worth their time and energy. Moreover, as advisory firms compete to satisfy investors, the financial landscape will evolve. And a private market for information about managers is able to evolve with the speed and effectiveness that regulation cannot achieve.

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