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March 2, 2007

Ms. Nancy M. Morris
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Re: File No. S7-03-04, Investment Company Governance, Release No. IC-27600 (December 15, 2006) (the "Release")

Dear Ms. Morris:

I am writing on behalf of Fidelity Investments in response to the Commission's invitation for public comment on the belated public release of two papers by the Office of Economic Analysis relating to the now-vacated fund governance rules. Those rules would have effectively (i) prohibited fund boards of directors from electing a management director to serve as board chairman and (ii) required that all fund boards have at least a 75% supermajority of independent directors. Because independent directors at virtually all fund groups constitute a majority on fund boards – and at an overwhelming majority of fund groups constitute a supermajority – the fund governance rules would, paradoxically, have limited the discretion and authority of independent directors in choosing who should serve as fund board chair and deciding to what extent independent directors should out-number management directors on a fund board. Fidelity has previously commented on the fund governance rules and incorporates all of these previous submissions. [1]

On April 7, 2006, the U.S. Court of Appeals for the District of Columbia Circuit unanimously ruled that the Commission had violated the Administrative Procedure Act when addressing the requirements of Section 2(c) of the Investment Company Act of 1940. That provision requires the agency to "consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation"[2] in any rulemaking under the 1940 Act. The Court of Appeals held that the Commission, in the wake of the court's earlier remand

[1] Letters from Eric D. Roiter to Paul F. Roye, Director, Division of Investment Management (January 7, 2004); to Jonathan G. Katz, Secretary, Securities and Exchange Commission (March 18, 2004); and to Nancy M. Morris, Secretary, Securities and Exchange Commission (August 21, 2006).

[2] *Chamber of Commerce v. Securities and Exchange Commission,* 443 F. 3d 890 (D.C. Cir. 2006)

ruling,[3] violated the APA by relying on data outside the rulemaking record and by failing to afford the public adequate notice and an opportunity to comment on that data with regard to the cost and competitive implications of the fund governance rules.

The Court of Appeals deferred for ninety days the issuance of its order to vacate the fund governance rules to allow the Commission time to file a status report with the court. The Commission did so on June 13, 2006 and in light of the absence of any request by the Commission to extend the deferral of its order, the Court of Appeals issued an order on July 20, 2006 overturning the fund governance rules.

The Commission's Current Request for Comment

On December 15, 2006, the Commission invited public comment on two papers prepared by the OEA at an earlier stage of the Commission's rulemaking, but which had not previously been made available to the public. Fidelity, in its letter of March 18, 2004 (submitting an economic study prepared on its behalf by Geoffrey H. Bobroff and Thomas H. Mack) had called upon the Commission to make public any economic studies prepared by its staff so that the Commission would have the benefit of the views and critiques of interested persons before taking action on the fund governance proposals. [4]

We are pleased that the Commission, under the leadership of Chairman Cox, has now seen fit to release the OEA's two papers for public comment and review. Transparency is at least as important in the public sector as in the private sector. In response to the Commission's invitation for public comment, Fidelity engaged John C. Coates IV, (John F. Cogan Jr. Professor of Law and Economics) of Harvard Law School to review the two papers. We are pleased to submit Professor Coates' paper, dated March 1, 2007 (attached hereto), for the public record. We are also attaching for the record (i) an earlier paper jointly authored by Professor Coates and R. Glenn Hubbard, "Competition and Shareholder Fees in the Mutual Fund Industry: Evidence and Implications for Policy)" (June 2006) and (ii) our submission of March 18, 2004 conveying the Bobroff-Mack study.

Professor Coates' March 2007 paper addresses a number of specific methodological and statistical shortcomings of the two OEA papers. Among the salient general points made by Professor Coates regarding the OEA papers are the following:

- "Despite providing an extensive survey of relevant literature, the [OEA] Research Memo does not identify a single study presenting either theory or evidence that the

[3] *Chamber of Commerce v. Securities and Exchange Commission*, 412 F. 3d 133 (D.C. Cir. 2005)

[4] In our March 18, 2004 letter, we wrote (at p.6):

> "At the Commission's open meeting, Commissioner Glassman asked the staff to develop empirical data comparing independent chair funds and interested chair funds to assist the Commission in reaching a final decision on whether to adopt the independent chairman requirement. Other Commissioners expressed an interest in evaluating this data. If such a review has been undertaken, then we respectfully suggest that the Commission should publish this data and invite public comment. Indeed, this would appear in keeping with the Administrative Procedure Act's requirements to afford interested persons adequate notice and a meaningful opportunity to comment on an agency's proposed rules."

[Independent] Chair Mandate would provide *any benefit* to funds, much less benefits that outweigh costs." (at p. 2) (emphasis in original)

- "The Research Memo is also forthright about one important reason to doubt that the Proposed Rules will provide net benefits to investors: optimal governance structures are likely to vary from fund to fund." (at p. 2)

- "[T]he available evidence suggests that (a) the Proposed Rules will eliminate value-enhancing flexibility and variation in fund governance and (b) the Proposed Rules are unnecessary because investors can already discipline funds and advisors for failing to use that flexibility to choose an optimal governance structure." (at p. 21)

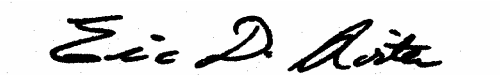
- "The Research Memo's broad suggestions about agency theory as applied to mutual funds, and its specific claims about the forms that agency costs take in mutual funds, are not supported by robust evidence. Where the Research Memo does point to evidence from academic studies, those studies do not support the broad claims made in the Research memo, report findings that are contrary to the claims made in the Research memo, or are inconsistent with other studies, including studies cited elsewhere in the Research memo." (at p. 21)

* * * * *

Fidelity again commends the Commission for inviting public comment on the OEA papers. In our comment letter of August 21, 2006, we noted that the Commission had announced in a press release on June 13, 2006, that Chairman Cox had asked the Commission's General Counsel "to conduct a top-to-bottom review of the Commission's process for complying with [NSMIA] and other laws that require an economic analysis of rule proposals." We urged the Commission in our August letter to invite public comment on any significant changes that the agency might be considering with regard to how its staff will conduct economic analyses on rule proposals, in light of recommendations made in that top-to-bottom review. We respectfully renew that request.

Finally, consistent with our prior comment letters, and especially in light of the absence of an adequate analysis of economic factors and costs, we urge the Commission to abstain from any rulemaking to re-impose an independent chair requirement on fund boards or to impose any separate fund governance requirements on fund boards who choose a management director to serve as fund board chair.

Sincerely,



Eric D. Roiter

Attachment

cc: Hon. Christopher Cox
Chairman, Securities and Exchange Commission

Hon. Paul S. Atkins
Commissioner

Hon. Roel C. Campos
Commissioner

Hon. Annette L. Nazareth
Commissioner

Hon. Kathleen L. Casey
Commissioner

Andrew Donohue
Director, Division of Investment Management

Brian Cartwright
General Counsel, Office of General Counsel

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March 1, 2007

Ms. Nancy M. Morris
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549-0609

Re: Request for Additional Comment
Investment Company Governance;
File No. S7-03-04

Dear Ms. Morris:

This letter comments on the SEC's proposed mutual fund governance rules (***Proposed Rules***), and the analysis contained in the memos (***Memos***) from the SEC's Chief Economist dated 12/29/06 summarizing (a) research on the governance of mutual funds and operating companies (***Research Memo***) and (b) the limits of statistics in researching fund governance (***Statistics Memo***).

The Chief Economist has added significantly to the public debate on the Proposed Rules. The Memos illustrate the complexity of fund governance and the difficulty of devising regulations that will reliably improve investor welfare. Given time constraints, this response cannot comprehensively comment on the Memos or the research they survey. The 31-page Research Memo, in particular, covers a range of theoretical, empirical and methodological topics, draws on 85 articles and papers, and makes a number of valid points relevant to the Proposed Rules (see ***section I*** below).

Yet the Memos may create an imbalanced impression because they mix theory and evidence without clearly noting the limited degree to which the evidence supports the theory described (***section II*** below), because they do not fully survey research relevant to an evaluation of the Proposed Rules (***section III*** below), because they do not fully state the differences between mutual funds and operating companies (***section IV*** below), and ultimately because they do not relate the research they survey to the Proposed Rules in any specific way (***section V*** below).

I. Important points made by the Memos

Despite containing statements that have led some in the media to depict the Memos as providing support for the Proposed Rules, in fact, the Research Memo's most important points demonstrate that, from an economic point of view, existing research does not support the Proposed Rules in their current form. Specifically, the Memos' single most important general conclusion[1] is that no scientific research provides evidence that the two governance mandates contained in the Proposed Rules will increase investor welfare by enhancing fund returns. As the Research Memo acknowledges, both mandates – the mandate for 75% independent fund boards (***the 75% Mandate***) and the mandate for an independent chair of fund board (***the Chair Mandate***) – will impose costs on investors,[2] and nothing in the existing governance literature provides evidence that those costs are lower than any benefits the mandates might in theory provide.

With respect to the Chair Mandate, the Research Memo is even more compelling. Despite providing an extensive survey of relevant literature, the Research Memo does not identify a single study presenting either theory or evidence that the Chair Mandate would provide *any benefit* to funds, much less benefits that outweigh its costs.[3] If cost-benefit analysis is to assist the regulatory process, the minimum one would expect before adding regulations is at least some economic evidence that the regulations will provide some benefit. In an area as complex as corporate governance, theory without evidence should not be enough, particularly when theory provides no clear predictions, and at least some evidence – not adequately summarized in the Research Memo – suggests that the Proposed Rules would impose real costs (see III.d below).

The Research Memo is also forthright about one important reason to doubt that the Proposed Rules will provide net benefits to investors: optimal governance structures are likely to vary from fund to fund.[4] This conclusion is consistent with the evidence reviewed in the Memos, and is also supported by evidence from research not reviewed in the Memos showing that board structures, takeover defenses, and ownership structures vary dramatically across funds and operating companies (see III.B below). The range of services provided by different mutual funds, the variation in their portfolios, the variety of kinds and governance of advisers, and the differences in funds' clienteles, ages, sizes, investment styles, and contracts – not to mention variation in the size, composition, personalities, experience, and tenure of fund boards themselves – all suggest that a one-size-fits-all board structure will not be best for investors in all funds.

A fourth key point made – if too cautiously – by the Research Memo[5] is that mutual fund investors are protected to a striking degree by market forces. Unlike operating company

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[1] Research Memo at 1.

[2] Research Memo at 2, 18–19, 21.

[3] This conclusion is the same as that previously reported by the SEC staff. See SEC Staff Report to the SEC, Exemptive Rule Requirements of 2004: The Independent Chair Provision (April 2005).

[4] Research Memo at 2, 11, 19, 21, 23.

[5] Research Memo at 7–8.

investors, mutual fund investors can withdraw their investments at any time with minimal transaction costs and invest their funds elsewhere. Adviser reputation is an important determinant of fund flows, and portfolio manager reputations and career concerns provide important market constraints on funds. If particular fund governance arrangements produce net benefits for investors, investors can easily move their money to funds that provide those arrangements. While the Research Memo sketches a few theories as to why competition might not be sufficient to protect fund investors, closer examination of those theories and the available evidence suggests that the Chief Economist's concerns about competition are substantially overstated (see II.C below).

Finally, the Memos also make clear that serious economic and statistical research on fund governance is relatively recent but beginning to become more reliable and valuable.[6] The Statistics Memo notes that the larger the number of observations available for study, the greater the ability of statistical tests to find evidence relevant to a given question, and that over time, observed fund performance in the presence of variation in governance structures provides a more reliable basis for drawing inferences about the effects of those structures on investor welfare. All three observations lead to the conclusion that over time the SEC will have available to it more, better, and more reliable information about fund governance than is the case today. If research on fund governance were forever doomed to be inconclusive, it might make sense to proceed rapidly to make a regulatory change that might otherwise seem attractive. The Memos make it clear that this is not the case, and that further research can in fact plausibly help resolve, or at least significantly reduce the uncertainty about, the value of the Proposed Rules, or similar proposals.

II. Review portions of memos that are unsupported by evidence

While the Memos include a great deal of important information and analysis relevant to the Proposed Rules, the Research Memo mixes conclusions based on a combination of economic theory *and* robust evidence with inferences based solely on economic theory or weak evidence. This occurs throughout the Research Memo as it reviews and relies upon the theoretical literature on agency costs without being clear about what parts of agency theory have, and which aspects have not, been confirmed by empirical research. The Research Memo also makes a variety of specific points that are based solely on theoretical models.

a. No evidence shows that agency costs overall are large at mutual funds

At the most general level, the Research Memo implies that agency theory shows that agency costs overall "may" be large in the mutual fund industry.[7] If that were true, and could be shown to be true, then that might provide a basis for further regulation. (It would still remain to show that a particular regulation would respond to the high level of agency costs.) But the Research Memo provides no evidence to support this general implication. The one published article cited in the Research Memo's brief description of

[6] Research Memo at 3–4.

[7] Research Memo at 4-5.

agency theory is purely theoretical, has no explicit application to mutual funds, and does not in fact establish (but takes for granted) the proposition for which the Research Memo cites it, that is, that "managers may not always serve investors' best interests."[8]

b. Particular theoretical points are not supported by evidence

More specifically, the Research Memo suggests, asserts or recites claims made in academic research that mutual funds are subject to a number of particular types of agency problems. But in each instance, these assertions and claims have no robust or general evidentiary basis, are based on theoretical models that make a number of stylized and often counterfactual assumptions, or are based on a small number of studies (often a single study) with a narrower focus than is made clear in the Research Memo. These assertions include the following:

Research Memo's Suggestion: *Fund board structures may not be chosen optimally*.[9]

While the Research Memo suggests that fund board structures may not be chosen optimally, the Research Memo provides no evidence to show that this is true. In fact, given that nearly all mutual fund boards have long had a majority of independent directors, and given that a majority of the board has the legal authority to make changes in (a) the identity of the board's chair and (b) the composition of the board's nominating committee, which in turn has effective power to choose new directors, it is hard to see why existing boards have not already chosen an optimal board structure.[10] The answer to this cannot simply be "agency costs," because it is not the adviser or the fund managers that have this legal authority, but the majority of the board, who as noted are already independent at nearly all mutual funds. If the answer to this is that independent directors are currently unable to stand up to managers or manager-affiliated chairs, despite having clear authority to do so in determining board structure, it seems hard to understand why the situation will not continue to operate even if the Proposed Rules were enacted. Why

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[8] B. Holmstrom and P. Milgrom, Aggregation and Linearity in the Provision of Intertemporal Incentives, 55 Econometrica 308 (1987). That article asks why real-world incentive contracts rarely match the predictions that agency theory had generated prior to the article, and instead more often rely on relatively simple, linear incentives. The Research Memo also cites a recent, unpublished working paper to support its general claim about agency costs, N. Siggelkow, Caught Between Two Principals, Working Paper (2004), which finds that expense ratios are higher for funds with 12b-1 fees, and that expense ratios of retail funds with 12b-1 fees are higher than expense ratios of institutional funds with 12b-1 fees, which the author suggests is consistent with the idea that customer power is "more important" than competition in the relationship between funds and shareholders. The author's model, however, does not support these inferences, as it is impossible to tell from his reported data whether funds with 12b-1 fees were qualitatively similar to funds without 12b-1 fees, or whether his regression model adequately controls for differences. Nor does the author take seriously alternative hypotheses. For example, advisors provide different and/or more costly services to retail funds than to institutional funds, so it should not be surprising that 12b-1 fees would have differential effects on expense ratios at the two types of funds. The author relies on a single year, non-rigorous, out-of-sample survey to dismiss this possibility.

[9] Research Memo at 3.

[10] I take it that this is the primary basis for the opposition of the independent directors of Vanguard's funds to the Chair Mandate. See www.sec.gov/rules/proposed/s70304/vanguarddirectors031004.htm. See also the comment of Professor Roman Weil, who chairs the audit committee of the Mainstay VP family of mutual funds, available at www.sec.gov/rules/proposed/s70304/s70304-540.pdf ("If you don't think the board can ... decide for themselves whether to have an independent chairman ... why do you suppose they can make other ones, likely more important?").

wouldn't supine boards simply appoint additional, nominally independent but in fact supine directors and then appoint a nominally independent but in fact supine chair? The likely answer, of course, is that most existing fund boards are not supine, but have exercised independent judgment in nominating directors and chairs. As discussed more in III.b below, deliberately chosen variation in board structure is consistent with variation across a wide range of corporate governance structures, in and out of the fund industry.

Research Memo's Claim: *Adviser fees based on AUM create incentives that diverge significantly from investor interests*.[11]

The only evidence supporting this broad claim are studies of the narrower claim – discussed next – that mutual fund advisers alter fund risk mid-year to improve year-end returns. Even if this narrower point were true (and the evidence is mixed at best), it would provide little evidentiary support for the broader claim that adviser fees based on AUM create incentives that diverge significantly from investor interests. With respect to the theoretical claim, the Research Memo notes but does not emphasize the complexity of the economic literature on the optimal compensation of portfolio managers, or how rapidly that literature has challenged the simple, earlier theoretical claims cited by the Research Memo.[12]

Research Memo's Claim: *Advisers alter fund risk mid-year.*[13]

For the narrower claim that mutual advisers may alter fund risk mid-year, the Research Memo cites three studies. These studies, however, present evidence relevant to still narrower claims. The first only purports to show that *new equity* funds in existence for five or fewer years exhibit risk-shifting, and even the authors of the study characterize the risk-shifting they find as "small" in economic significance.[14] The second study purports to find evidence of risk-shifting solely in a sample of *growth* funds in the late '80s (but not in the early '80s), and also finds that more than half of the purported risk-shifting in that period would arise from a passive, randomly selected portfolio simply due to changes in portfolio risk in the period studied.[15] The third study also focuses exclusively on growth funds and does not test the robustness of its findings with a more detailed review of (for example) time trends.[16]

Beyond the fact that these three studies are far narrower in scope than implied by the Research Memo, the Research Memo does not note several troubling facts about these

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[11] Research Memo at 5.

[12] E.g., Livio Stracca, Delegated Portfolio Management: A Survey of the Theoretical Literature, 20 J. Econ. Surveys 823 (2006).

[13] Research Memo at 5.

[14] J. Chevalier and G. Ellison, Risk Taking by Mutual Funds as a Response to Incentives, 105 J. Pol. Econ. 1167 (1997).

[15] K. Brown, W. Harlow and L. Starks, Of Tournaments and Temptations: An Analysis of Managerial Incentives in the Mutual Fund Industry, 51 J. Fin. 85 (1996).

[16] J. Taylor, Risk-Taking Behavior in Mutual Fund Tournaments, 50 J. Econ. Beh. and Org. 373 (2003).

studies. First, the studies are not consistent: the first and third studies find that fund managers increase risk in the middle of the year following higher returns earlier in the year,[17] but the second study finds the opposite. Second, the first study finds no robust evidence of risk shifting in the great majority of funds (over 75% of their sample) that are older, more established equity funds.[18] Third, another study by the authors of the first study – which the Research Memo relies on elsewhere – finds that advisers are more likely to terminate an individual portfolio manager if his fund's sector weightings or risk levels deviate significantly from the mean of the fund's style class.[19] This implies that risk shifting is already being disciplined by advisors.

Finally, the Research Memo omits mention in this context of a fourth study examining the possibility of mutual fund manager risk-shifting, although the Research Memo relies on the fourth study elsewhere.[20] This fourth, most recent study reproduces the results of the second study on which the Research Memo relies but finds those results *disappear* when daily rather than monthly data are used, suggesting that the results of the second study were spurious.[21] The fourth study also presents theoretical and empirical reasons to put more faith in the daily data than in the monthly data.

In sum, the literature surveyed in the Research Memo does not support the proposition that significant amounts of risk shifting occur in mutual funds, is inconsistent and contradictory, and has not held up under subsequent analysis.

Research Memo's Claim: *Advisers can alter risk without being discovered.*[22]

For the claim that advisers engage in significant amounts of risk-shifting to be plausible, the Research Memo must assume that advisers will not be discovered in this behavior. While the Research Memo is correct that fund portfolios are only disclosed at intervals, so that investors cannot monitor fund risk in real time, the Research Memo does not acknowledge that even intermittent disclosure permits investors – as well as the SEC, third parties, or researchers – to discover risk shifting and thus for fund advisers to be disciplined if they altered portfolio risk significantly. Nor does the Research Memo acknowledge that frequent, significant risk-shifting behavior would increase transaction costs for the funds, which would reduce returns, which in turn would reduce fund assets, which would ultimately reduce adviser compensation, so that advisers also have an incentive to control risk shifting by portfolio managers.

The Research Memo also asserts with no empirical support that funds "may" engage in "style drift," i.e., deviation from a fund's stated investment philosophy in search of

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[17] Chevalier and Ellison, supra note 15; Taylor, supra note 17.

[18] Id.

[19] Chevalier and Ellison, Career Concerns of Mutual Fund Managers, 114 Q.J. Econ. 389 (1999) at 391.

[20] Research Memo at 15 n.52.

[21] J. Busse, Another Look at Mutual Fund Tournaments, 36 J. Fin. Quant. Anal. 53 (2001).

[22] Research Memo at 6.

superior returns. (The one article cited by the Research Memo provides no evidence on this point.[23]) While the Research Memo notes that SEC rules limit the ability of funds to "drift" in this way, the Research Memo asserts that advisers "still have significant flexibility in the choice of individual investments," without acknowledging that this flexibility – for the size of which it provides no evidence – does not imply or necessarily lead to the potentially more troubling "style drift" it claims "may" exist, since investment philosophy (and thus "style drift") is appropriately measured at the portfolio level, not at the level of individual investments.

Research Memo's Claim: *Advisers and investors have different risk preferences.*[24]

The Research Memo asserts that fund advisers "may be far less risk-averse" than fund investors. To support this proposition, the Research Memo cites one study that the Research Memo describes as providing evidence that "some managers significantly increase portfolio risk as the threat of termination increases."[25] In fact, that study[26] asks what the *causes* of manager termination are, not what the *consequences* are of an increased threat of termination, and nowhere makes strong assertions about how termination risk causes manager risk preferences to deviate from investor preferences. Moreover, the study finds that a young manager is more likely to be terminated if they deviate significantly from the mean risk levels of the fund's style class – suggesting that advisers are monitoring individual manager's choices of risk levels and disciplining them when they deviate from norms.

Research Memo's Claim: *Advisers benefit "star" funds by cheating other funds*.[27]

Again, the Research Memo broadly asserts that advisers to fund families "may" have "incentives to favor one fund over another," then narrows to a claim that "advisers managing … diverse mutual funds within a family may have an incentive to assign winning and losing trades after the fact" to create a "star" fund, and then cites a single study in support.[28] The Research does not note that this study focuses on a subset of actively managed equity funds, nor does the Research Memo note the miniscule explanatory power of the main empirical model testing cross-subsidization in that study – the models have an adjusted-R^2 ranging from 0.01 to 0.03.[29] Despite spending 28 single-

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[23] Research Memo at note 9, citing Paula A. Tkac, Mutual Funds: Temporary Problem or Permanent Morass, Fed. Res. Bank of Atlanta Econ. Rev. (Fourth Quarter 2004) at 1, which is an essay that does not purport to offer evidence.

[24] Research Memo at 5-6.

[25] Research Memo, at note 7.

[26] Chevalier and Ellison, supra note 20.

[27] Research Memo at 6.

[28] J. Gaspar, M. Massa, and P. Matos, Favoritism in Mutual Fund Families? Evidence on Strategic Cross-Fund Subsidization, 61 J. Fin. 73 (2006). The only other published study cited by the Research Memo on this point simply finds that all funds within a complex benefit from having a top-performing fund in the complex. V. Nanda, Z. Jay Wang, and Lu Zheng, Family Values and the Star Phenomenon: Strategies of Mutual Fund Families, 17 Rev. Fin. Stud. 667 (2004), and makes no claims about "cross-subsidization."

[29] Gaspar, et al., supra note 29 at 86 (Table III). To be clear, a high adjusted R-squared does not necessarily mean that a study is more reliable than one with a low R-squared, as data mining and outright data manipulation can produce

spaced pages in the Statistics Memo to state how methodological problems could explain the failure of researchers to find a relationship between board structure and fund performance, neither Memo spends any time explaining that empirical models of the financial markets generally often produce fragile and inconsistent results, and that models with low explanatory power often produce very different results once a more extensive battery of controls are introduced.

Research Memo's Claim: *Advisers create "incubator" funds to mislead investors*.[30]

The Research Memo claims that advisors "may" create an array of diverse, unadvertised "incubator funds" and then liquidate the worst performing funds before marketing the best performing funds without disclosing the "random nature" of the performance of those funds. Again, the Research Memo cites the same, single study to support this broad claim,[31] but does not note that this study in fact finds that cross-subsidization of funds does *not* seem to be used to support young funds within a complex,[32] contrary to the "incubator" theory.

c. Claims about switching costs are unsupported by evidence

In response to the fact that competition constrains funds significantly (discussed more in III.C below), the Research Memo raises the possibility that taxes undermine competition among mutual funds. But the Research Memo does not note that the *tax-exempt* portion of the mutual fund industry has risen dramatically over the recent past, and continues to increase. In 2005, more than half of all mutual fund assets were held in tax-deferred accounts or tax-exempt funds,[33] more than 60% of all fund shareholders invest through tax-deferred accounts, and nearly 60% view tax-deferred retirement plans as their primary source for purchasing funds.[34] More than half of all US households have at least one tax-deferred individual retirement account (IRA), 70% of those invest in mutual funds, and roughly two-thirds of all fund investors now own a portion of their assets through tax-exempt vehicles (401(k)s, IRAs, etc.).[35] In addition, as the Research Memo acknowledges, embedded taxes deter new investment (investors anticipate buying into a greater amount of future capital gains taxes for the same cost, i.e., net asset value), so

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artificially high and non-representative goodness-of-fit statistics. But whenever an empirical model produces a very low adjusted R-squared, even after including (as Gaspar et al. do) a battery of plausible controls, researchers rightly worry that too much noise remains in the model for anyone to place too much reliance on the magnitude or even the sign of the reported findings. At the very least, one would want to test the model on further samples before drawing any firm conclusions about the theory being tested.

[30] Research Memo at 6-7.

[31] Gaspar, et al., supra note 29.

[32] Id. at 86 (Table III Cols. 5 and 6).

[33] Investment Company Institute, Investment Company Fact Book 2006, at 15.

[34] Id. at 50.

[35] Id at 62-63. These numbers do not include tax-exempt institutional investors in mutual funds, and so understate the degree to which taxes have ceased to impose significant switching costs on fund investors.

fund managers have a clear incentive to not permit embedded taxes to grow beyond a fairly low level, which is borne out by the best evidence on fund behavior.[36]

What does the direct evidence on switching show? In fact, significant amounts of switching occur annually by fund investors. During the last market down-turn, investors redeemed over $13 trillion of mutual fund shares,[37] including roughly a $1 trillion of redemptions from long-term equity funds,[38] producing $27 billion of *net* outflow of cash from equity funds.[39] As a percentage of average fund assets, shareholder redemptions ranged from 25% (2004), to 39% (2002), to 57% (1987) for all funds, and from 23% (2005), to 41% (2002), to 73% (1987) for equity funds.[40] Since these are *annual* rates, total redemptions over a multi-year period would be higher, and since these are *average* rates, particular funds would have experienced higher redemption rates even within a single year. Many funds, in fact, experience net outflows: Barclay et al. found that 25% of a sample of fund-years from 1976 to 1992 experienced net outflows of at least 14%.[41] At the complex level, too, many mutual fund competitors experience net outflows in any given year. In 1999 and 2000, nearly half of all mutual fund complexes saw net cash outflows from their long-term funds.[42]

Finally, it should be noted that the overall market dynamics of the mutual fund industry have also meant that – even if switching costs were significant for existing investments – the effect of those costs has not been to significantly reduce competition within the fund industry. That is because investors can avoid switching costs on old investments by making new *investments* elsewhere. From 1994 to 2004, investors have added $372 billion to funds each year, on average. That amount is roughly double the total amount of all AUM in 1980. To get a rough sense of the importance of these facts, make the following assumptions: (1) investors in 1980 decided advisory fees were too high at the funds in which they had invested, (2) those investors did not want to redeem their shares and reinvest elsewhere because of switching costs, (3) those investors invested all of their new fund investments from 1994 through 2004 in new funds, and (4) nothing else changed between 1980 and 2004. Based on those assumptions, the market share of the 1980 funds would have shrunk from 100% to less than 5% of the overall fund industry. However crude this analysis, it suggests that even if switching costs were very high, competition will continue to be an important constraint on advisory fees in any period

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[36] M. Barclay, N. Pearson and M. Weisbach, Open-end Mutual Funds and Capital Gains Taxes, 49 J. Fin. Econ. 3 (1998), at 23 (finding negative relationship between unrealized capital gains and new stock fund inflows).

[37] Investment Company Institute, Investment Company Fact Book 2005 at 60 (Table 2). This figure excludes "exchange redemptions," i.e., redemptions followed by an immediate reinvestment in a fund within the same fund complex.

[38] Id. at 83 (Table 25).

[39] Investment Company Institute, Investment Company Fact Book 2006 at 89 (Table 19).

[40] Investment Company Institute, Investment Company Fact Book 2006 at 97 (Table 27).

[41] Barclay et al., supra note 36.

[42] Brian Reid, Chief Economist, Investment Company Institute, Competition in the Mutual Fund Business (January 2006), at 2 (Figure 1).

that the fund industry experiences large in-flows, as has been the case over the past 30 years.

III. Important points about the Proposed Rules missing from the Memos

In addition to presenting theory unsupported or only weakly supported by evidence (outlined in II above), the Research Memo also omits a number of important facts and plausible theoretical possibilities that should be included in a survey of economic research on fund governance.

A. The Proposed Rules will eliminate variation, and limit future research

The first missing observation – one that is incontestable – is that if the SEC imposes a governance mandate on all funds, the variation necessary for statistical analysis necessarily disappears in the world.[43] Once variation in governance structures is eliminated, no further statistical study is possible because the only funds that can then be observed are funds with the same governance structure. A related observation not made explicit in the Memos – but one with which I have confidence the Chief Economist would agree – is that statistical techniques improve over time. With computing power growing rapidly, those improvements are substantial over even a short time frame. A simple comparison of the well-known "Wharton Report,"[44] which helped prompt the 1970 amendments to the Investment Company Act, with any of the research articles cited in the Research Memo will bear out this point. What was cutting-edge 30, or even 10 years ago, in the best economic journals is now considered primitive and unreliable. Again, this suggests that if the value of a proposed regulation is already debatable – as the Memos suggest is the case with the Proposed Rules – then waiting, and preserving variation, will preserve the SEC's ability to regulate more reliably in the future.

B. Where permitted, governance variation is the norm, not the exception

A second point made in the Memos but insufficiently emphasized is that there is substantial evidence from research on both mutual funds and operating companies finding that variation in governance is common where it is permitted, as illustrated in Table 1. Among pooled investment vehicles, many (but not all) mutual fund advisors voluntarily restrict their investment discretion by contract, many (but not all) money managers voluntarily waive fees, and most (but not all) choose to pool investments in the mutual fund structure rather than in unit investment trusts (UITs), closed-end funds, or

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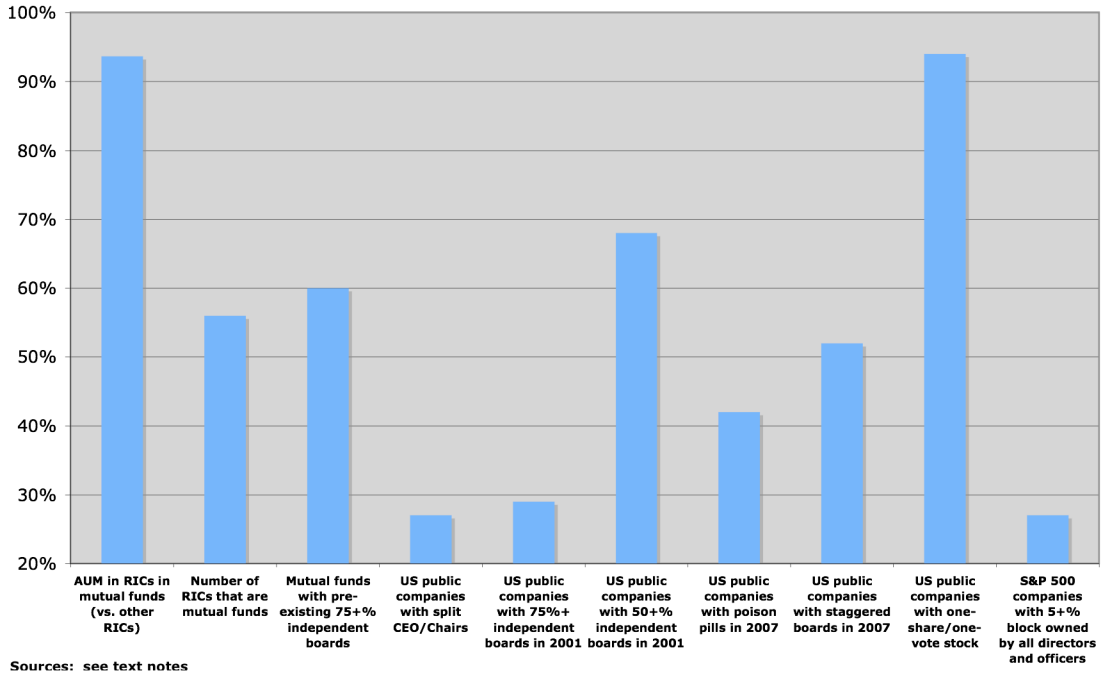
[43] The same point is true if the form of a regulation is not a literal mandate, but takes a form that nevertheless creates strong incentives to conform to a single governance structure; thus, even a "disclose or abstain" rule can eliminate or greatly reduce variation, as with Section 404 of the Sarbanes-Oxley Act, which "only" requires disclosure of control weaknesses but has led to increased control expenditures across the board. See generally John C. Coates IV, The Goals and Promise of the Sarbanes-Oxley Act, 21 J. Econ. Persp. 91 (Winter 2007).

[44] Wharton School of Finance and Commerce, A Study of Mutual Funds, Report of the Committee on Interstate and Foreign Commerce, 87th Congress (1962).

ETFs.[45] Directly relevant to the Proposed Rules, of course, the SEC staff has estimated that roughly 60% of mutual funds already had 75%+ independent boards prior to the original proposal of the Proposed Rules, but 40% did not, and that 10% of mutual funds do not rely on an exemptive rule and could have had less than a majority of independent directors.[46] Evidence exists, moreover, that board independence operates as a substitute for contract restrictions on fund managers, consistent with optimal variation in board structure.[47]

Table 1. **Governance Variation in Funds and Public Companies**



Sources: see text notes

[45] Andres Almazan, Keith C. Brown, Murray Carlson, and David A. Chapman, Why Constrain Your Mutual Fund Manager?, 73 J. Fin. Econ. 289 (2004) (reporting systematic patterns in investment constraints, consistent with optimal contracting, in a sample of US equity funds, in which contract constraints substitute for higher levels of board independence); Susan E.K. Christoffersen, Why do Money Fund Managers Voluntarily Waive their Fees?, 56 J. Fin. 1117 (June 2001) (documenting variation in fee waivers); Daniel N. Deli and Raj Varma. Contracting in the investment management industry: evidence from mutual funds, 63 J. Fin. Econ. 79 (2002) (fund advisors have discretion to use derivatives when it is efficient to do so, and not otherwise); Investment Company Institute, Investment Company Fact Book 2006, at 7-8 (reporting that as of 12/31/05, of the $9.5 trillion AUM in US-registered investment companies (RICs), $8.9 trillion were held in mutual funds, $276 billion were in closed-end funds, $296 billion were in ETFs, and $41 billion were in UITs; and that of ~15,000 RICs, ~8,400 were mutual funds, ~600 were closed-end funds, ~200 were ETFs, and ~6,000 were UITs).

[46] See Investment Company Governance, Investment Company Act Rel. No. 27395 (June 13, 2006) at n.11; Investment Company Governance, Investment Company Act Rel. No. 26520 (July 27, 2004), at n 89; Investment Company Governance, Investment Company Act Rel. No. 26323 (Jan. 15, 2004) at n.61. The Investment Company Act requires at least 40% of fund directors be independent. 15 U.S.C. 80a-10(a).

[47] Alamazan, et al., supra note 46 (Table 3, finding robust negative relationship between proportion of fund board that is independent and a measure of contract constraints on fund managers).

Among operating companies, a range of existing evidence not cited in the Research Memo supports the view that variation in ownership and governance structures is the norm, not the exception. While there are reasons to doubt the applicability of research on governance in operating companies to governance in funds (see section IV below), the Research Memo is highly incomplete on the one area of research most relevant to the Chair Mandate in the Proposed Rules. Specifically, the Research Memo states "the literature on the economic consequences of an independent chair is substantially smaller" than that on board independence, citing a single study of the difference in performance of operating companies with split vs. unified Chair/CEO positions.[48]

In fact, the literature on that topic is much larger than suggested by the Research Memo. At least 33 additional studies of those differences have been conducted over the last 20 years, including two "meta-studies."[49] The most important, clear lesson from those studies is that there has been no long-term trend or convergence on a split Chair/CEO structure, and that variation in board leadership structures at large US public companies have persisted for decades.[50] Similar findings have been reported in numerous studies of U.K. companies.

Variation in board and committee structures was also standard prior to the adoption by the NYSE and the Nasdaq of revised governance standards in 2002.[51] Variation in ownership structures – which arguably are of far greater importance to performance than board structures – continues to be the norm among publicly held operating companies. The best studies of broad samples of public operating companies find that variation in

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[48] J. Brickley, J. Coles, and G. Jarrell, Leadership Structure: Separating the CEO and Chairman of the Board, 3 J. Corp. Fin. 189 (1997).

[49] See, e.g., Dan R. Dalton, Catherine M. Daily, Alan E. Ellstrand and Jonathan L. Johnson, Meta-Analytic Reviews of Board Composition, Leadership Structure and Financial Performance, 19 Str. Mgt. J. 269 (1998) (reviewing 54 empirical studies of board composition and 31 studies of board leadership structure and finding "little evidence of systematic governance structure/financial performance relationships"); D.L. Rhoades, P.L. Rechner, and C. Sundaramurthy, A Meta-Analysis of Board Leadership Structure And Financial Performance: Are "Two Heads Better Than One"?, 9 Corp. Gov.: An Int'l Rev. 311 (2001) (meta-analysis of 22 independent samples across 5,271 companies indicates that independent leadership structure has a significant impact on performance, but this impact varies with context); O. Palmon and J.K. Wald, Are two heads better than one? The impact of changes in management structure on performance by firm size, 8 J. Corp. Fin. 213 (2002) (finding positive abnormal stock price reactions for small firms that switch from dual to non-dual CEO/chair structure, and negative reactions for large firms that make the same switch, consistent with independent chairs providing added value for larger firms where agency costs may be higher, but destroying value for smaller firms where clarity of leadership is more important).

[50] See sources cited in prior footnote; see also S. L. Gillan, J. C. Hartzell, and Laura T. Starks, Tradeoffs in Corporate Goverance: Evidence from Board Structures and Charter Provisions, working paper (June 2006) (only 27% of sample companies have split Chair/CEO positions, and only 1% have designated lead directors); B. Ram Baliga, R. Charles Moyer and Ramesh S. Rao, CEO Duality and Firm Performance: What's the Fuss?, 17 Str. Mgt. J. 41 (1996) (reporting large variation in board leadership structure in 1979, 1985 and 1991; finding no abnormal stock price reactions associated with announcements of changes from split to non-split CEO/chair structure in Fortune 500 during 1980s, no impact on operating performance, using accounting data, and no differences in firm value using a measure similar to Tobin's Q).

[51] In 2001, one survey reported that 29% of operating company boards were 75+% independent, 39% had majority-independent boards, and 32% did not have majority-independent boards. See 2001-2002 NACD Public Company Governance Survey, 2001 Nat'l Ass'n of Corp. Dirs. 18.

ownership structures has no clear effect on investor returns.[52] Variation in takeover defenses and other elements of control structures of publicly held operating companies is also the norm: 42% of S&P 1500 companies have poison pills that effectively prevent shareholders from selling their shares to third-party bidders without board approval; roughly half have effective staggered boards that make taking control of a company via a proxy context nearly impossible; 6% of all companies in Compustat give some shareholders more votes per share than other shareholders.[53] These variations have persisted for decades. There is no compelling evidence that any single ownership, board, or control structure is best for all companies.

C. Competition gives funds incentives to optimize governance structures

As noted above, the Research Memo acknowledges that competition gives funds incentives to optimize governance structures – that is, to choose the best structure given the characteristics of the fund and its investors. But the Research Memo does not fully present the existing evidence on how strong competition in the fund industry is. (The Research Memo calls into question the strength of this competitive pressure by suggesting that search and switching costs may pose significant impediments to competition in the fund industry, but the evidence is to the contrary. See II.C above.) In a working paper co-written with R. Glenn Hubbard,[54] we demonstrate the degree to which these market forces are evidenced by investor sensitivity to advisory fees. Among other things, we find that a 10% increase in fund fees (e.g., from 150 basis points to 165 basis points), will, all else equal, decrease a fund's total net assets by ~25% and will reduce a fund complex's assets by ~15%. Similarly, the best evidence suggests that investors responded powerfully to the market timing and late trading scandals, punishing advisors by dramatically reducing assets under management at affected funds, and underlining the strong competitive pressures for funds to prevent such scandals from recurring.[55]

As a result of this competition, market shares for funds and fund complexes are highly unstable over time.[56] Some fund complexes (e.g., American Express, Dreyfus) have experienced substantial declines in market share over the past two decades, whereas other

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[52] E.g., Charles P. Himmelberg, R. Glenn Hubbard and Darius Palia, Understanding the Determinants of Managerial Ownership and the Link Between Ownership and Performance, 53 J. Fin. Econ. 353 (1999). Data in Table 1 on ownership blocks among S&P 500 companies are derived from the Execucomp database and are on file with author.

[53] Data on poison pills and classified boards are from www.sharkrepellent.net (visited 2/28/07); for dual class companies, data are from Paul A. Gompers, Ishii, Joy L. and Metrick, Andrew, Extreme Governance: An Analysis of Dual-Class Companies in the United States, AFA working paper, available at ssrn.com (March 2006); see also John C. Coates IV, Explaining Variation in Takeover Defenses: Blame the Lawyers, 89 Cal. L. Rev. 1301 (2001) (documenting and explaining takeover defense variation among companies going public for the first time).

[54] See John C. Coates IV and R. Glenn Hubbard, Competition and Shareholder Fees in the Mutual Fund Industry: Evidence and Implications for Policy, AEI Working Paper #127 (June 2006), available at http://www.aei.org/publications/pubID.24577/pub_detail.asp (last visited 1/31/07).

[55] Stephen J. Choi and Marcel Kahan, The Market Penalty for Mutual Fund Scandals (January 2006), NYU Law and Economics Research Paper No. 06-07, available at http://ssrn.com/abstract=877896 (last visited 1/31/07).

[56] Coates and Hubbard, supra note 55 (Tables 4, 5 and 8-10).

complexes (e.g., Fidelity, Vanguard) have experienced significant growth in market share over that period. Even in the short term, substantial shifts in shares occur as competition on performance leads investors to move assets among funds and fund complexes. Examples from 2000 to 2004 include American Funds' share increasing by 50% to 14.1%, and Dodge and Cox's share rising by over five times. Some complexes have seen both dramatic increases and decreases, with Putnam Funds' share almost doubling from 1990 to 2000, before falling by more than half from 2000 to 2004, in large part due to its involvement in the market timing scandals.

The fund industry's market structure and experience with new entry and expansion also support the idea that competition is a strong force pushing funds and advisors to optimize on all dimensions of their choice set, including governance structures. Mutual funds number in the thousands, and are offered by hundreds of complexes.[57] Data on equity funds from Strategic Insight shows the number of U.S. equity funds and complexes increased dramatically from 1985 through 2004. Herfindahl-Hirschman Indexes (HHI) of industry concentration for equity funds and for complexes (measured as the sum of the squares of the percentage market shares of funds or complexes) are low, indicating that no fund, complex, or small group of funds or complexes, has a dominant market share. The HHI for funds has fallen steadily as the number of funds increased, while the HHI for fund complexes has risen since 1985 but has remained low. HHIs with a value of 1,000 or less are considered consistent with competition by the U.S. Department of Justice and Federal Trade Commission horizontal merger guidelines.[58]

More generally, the Research Memo does not acknowledge that the best economic theory teaches that competition will have important effects on market participants even if *some* investors face significant switching or search costs. Not all or even most buyers have to switch from worse to better products, or to search for the latter, to affect the competitive equilibrium. Given a sufficient number of buyers engaging in search, willing and able to switch to competitors, fund advisors and funds alike must compete for their funds to retain sophisticated customers and maximize their own returns.[59] Competitive prices benefit all fund investors – price-searching or non-price-searching, tax-constrained or tax-free – alike. This process applies as much to mutual funds as it does to everyday goods, such as foods, clothing, and household products, and is not affected by the difficulties most of us would have on our own in evaluating the quality of particular goods, such as televisions or cars.

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[57] The Investment Company Institute reports 8,454 U.S. mutual funds in 2005, including 4,586 equity funds. Investment Company Institute, Investment Company Fact Book 2006 at 8, 75 (numbers of funds). These numbers only include true mutual funds, and do not include close substitutes, such as exchange-traded funds (ETFs).

[58] See Coates and Hubbard, supra note 55 (Tables 2, 3).

[59] E.g., Alberto Cavaliere, Price Competition And Consumer Externalities In A Vertically Differentiated Duopoly With Information Disparities, 86 J. Econ. 29 (2005) (competitive price can prevail in market where both product quality and consumers' willingness to pay for a given level of quality varies even if less than all consumers are informed); Alan Schwartz and Louis Wilde, Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests, 69 Va. L. Rev. 1387, 1405-06 (1983) ("A market can be in competitive equilibrium even though the ratio of comparison shoppers to all consumers is much less than one.").

D. Costs of Proposed Rules

An additional, surprising omission from the Research Memo is a full discussion of the economic theories and evidence regarding the costs of increasing the independence of boards of directors and/or board chairs. While the Research Memo notes one important cost of increased board independence – the possible reduction of information available to the board as potentially more informed insiders are replaced by potentially less informed independent directors – the Research Memo neglects several other reasons board independence may impair firm performance that have been long identified in research on board structure and, in some cases, supported by evidence. These additional potential sources of the costs of board or chair independence include:

1. Agency costs specific to independent boards

The Research Memo relies in part on research on the economic theory of agency costs,[60] generally and as applied to "managers" of mutual funds. It is all the more surprising, then, that the Research Memo does not acknowledge that the very same theory predicts that independent directors or chairs – who are also "agents" as that term is used in the economic literature – will generate their own agency costs because fund investors cannot perfectly observe or control their behavior. The specific ways in which the interests of independent directors and chairs can be expected to diverge from those of fund investors include (a) excessive risk-aversion, (b) asymmetric incentives, (c) a preference for the "quiet life," and (d) director remuneration.

Independent directors and chairs are often significantly more wealth- and liquidity-constrained than for-profit firms, and can be expected to exhibit a greater degree of risk-aversion than the for-profit firms that serve as advisers to most mutual funds. As a result, agency theory suggests, independent directors or chairs may avoid taking risks even when those risks have a positive expected value for their funds, and even when a less independent board or a board with a non-independent chair might take on those risks. Not all independent directors and chairs will exhibit a greater degree of risk-aversion, but that is precisely why different funds could benefit from having different board structures.

Exacerbating the likely risk-aversion of independent directors and chairs is the fact that director incentives are asymmetric: they have little upside but significant potential downside from taking actions that have uncertain outcomes. Independent directors have little upside because they often do not own significant amounts of stock in the mutual funds they oversee, relative to their net worth or income. As between a governance decision that will produce little benefit but pose no risk of material loss to the fund, and an alternative that will produce a great benefit, but only a slight risk of material loss, the fund investors may prefer the latter, and agency theory predicts that independent directors and chairs who own relatively little mutual fund stock may prefer the former. Managers and directors affiliated with advisors will often derive more benefits from a beneficial outcome than is true of independent directors because managers and affiliated directors

[60] Research Memo at 4, 18-19.

may derive greater amounts of compensation that is based in part on increases in mutual fund assets or returns.

More basically, independent directors and chairs will often be required to expend a greater amount of effort to change a mutual fund's course of action than to maintain the status quo. Because they do not have significant upside incentives, they may simply be unwilling to expend that effort. Managers who do have significant upside incentives or have long-term career concerns may be willing to expend more effort than independent directors or chairs.

Finally, directors themselves derive non-trivial compensation from serving as mutual fund directors. As a result, agency theory predicts that directors will have reasons to resist value-enhancing fund mergers or liquidations, or to resist efforts to rationalize fund board structure over time, or even to retire when it would be clear to an informed investor that the time has come for a given director or chair to retire. Again, managers or affiliated directors will have other incentives, such as from long-term career concerns, and thus may be more willing to take actions that reduce their benefits from serving as directors.

The point is not that the foregoing applications of agency theory are universally true, or even that these agency costs are large on average, but only that the very theory that the Research Memo uses to suggest that the Proposed Rules *may* have beneficial effects by reducing agency costs also predicts that the Proposed Rules *may* increase agency costs and reduce investor welfare. The nature and size of agency costs arising from increased board independence can be expected to differ from those generated by the need of shareholder-principals of funds to delegate to managers. Nothing in agency *theory* allows any clear prediction as to whether shifting power and authority from managers to independent directors will increase or decrease total agency costs to shareholders. That ambiguity in the theory makes carefully focusing on available evidence all the more important, and is, again, a reason to expect variation in board structures to be best for investors.

2. Increased conflict, loss of trust, loss of coherent leadership

In addition to the agency problems that increased board independence may create, a separate body of management theory predicts that increasing board independence may increase conflict and decrease trust among board members, or reduce the stability of leadership over time, thereby reducing board effectiveness and fund performance.[61] These fears have long been articulated in research exploring the costs and benefits of splitting the Chair and CEO positions in operating companies. But in the fund industry, they have special application, because the independent chair of an operating company will often more easily be able to establish clear lines of authority over managers than is the case in a mutual fund. That is because an independent chair of a mutual fund board

[61] E.g., J. R. Galbriath, Organizational Design (1977); D. Miller and P.H. Freisen, Strategy-Making in Context: Ten Empirical Archetypes, 14 J. Mgt. Stud. 253 (1977); Baliga et al. supra note 51.

will often face a more difficult leadership challenge given the importance and practical power of the advisor to resist actions the independent chair wishes to take, or to insist on presenting issues that the chair would rather not have on the board's agenda. As a result, conflict may be a more constant and overt fact of life with independent directors and chairs. This conflict, in turn, may produce a lowering of trust among board members, and produce erratic leadership, as decisions are revisited, changed, or reversed more frequently.

3. Increased compensation for managers

A third reason to believe that increased board independence and an independent board chair may create additional costs is that managers may trade off compensation and control.[62] Mandating increased board independence may lead a manager to demand higher levels of compensation. For some companies, any gains to investors resulting from lower agency costs due to increased board independence may be swamped by the higher compensation demanded by managers who must give up power as a result of board independence. Another way of putting the point is that, at the margin, managers may value control more than investors. As the Research Memo notes, several studies have found no robust relationship between board structure and fund expenses or fees.[63] The Statistics Memo suggests the lack of findings may have to do with low-powered tests. While this may be the case, it may also be true that there is no simple theoretical predicted relationship between board independence and fees, and this may account for the lack of robust findings.

4. Decreased effort by managers

A fourth reason to believe that increased board independence may create additional costs derives from behavioral economics. Traditional agency theory posits that principals can lower agency costs by monitoring agents, and the Research Memo suggests that increasing board independence may represent a way in which fund investors can monitor managers and advisors. But a growing body of work provides reasons to believe that explicit monitoring of agents can be more costly as a result of behavioral responses by agents. Monitoring provides explicit evidence that agents are not trusted, and agents may expend less effort when they are not trusted. A recent article published in the *American Economic Review* provides evidence of such an effect in an experimental setting.[64]

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[62] Andres Almazan and Javier Suarez, Entrenchment and Severance Pay in Optimal Governance Structures, 58 J. Fin. 519 (2003). This study was cited in the Research Memo, but its central claim was not made clear.

[63] Research Memo at 12.

[64] Armin Falk and Michael Kosfeld, The Hidden Costs of Control, 96 Am. Econ. Rev. 1611 (2006); see also David M. Kreps, Intrinsic Motivation and Extrinsic Incentives, 87 Am. Econ. Rev., May 1997, at 359, 359 (monitoring and high-powered incentives may reduce trust and destroy loyalty). Additional support for the interaction of monitoring and trust can be found in Frey (1993), Barkema (1995); Slikwa (2003); Ichino and Muhlheusser (2004) – all cited in Falk et al. – as well in the *legal literature*, e.g., Margaret Blair and Lynn A. Stout, Trust, Trustworthiness, and the Behavioral Foundations of Corporate Law, 149 U. Pa. L. Rev. 1735 (2001); the *management science literature*, e.g., Laura Poppo and Todd Zenger, Do Formal Contracts And Relational Governance Function As Substitutes Or Complements?, 23 Str. Mgt. J. 707 (2002); and in the *political science literature*, e.g., Iris Bohnet, Bruno S. Frey and Steffen Huck, More Order with Less Law: On Contract Enforcement, Trust and Crowding, 95 Am. Pol. Sci. Rev. 131 (2001).

Again, the point is not that such an effect would necessarily be large or general in the fund industry if fund board independence were increased, but only that it is an additional possible cost to balance against the theoretical agency costs that the Research Memo implies could justify the Proposed Rules. It is thus also an additional explanation for the bottom line of the Research Memo – that no evidence suggests that the Proposed Rules would produce net benefits for fund investors.

5. Increased board size

One way a fund board might try to respond to the threat of reduced information that the Research Memo acknowledges may result from mandating increased board independence is to simply add independent directors, rather than replacing existing manager- or affiliated-directors. But the one empirical point that seems fairly robust in the research on board structure is that large boards perform less well, on average, than small boards.

E. New regulations should await clear evidence or a clear problem

A final observation – more contestable than the foregoing, but at least something that an economically minded observer might consider – is that new regulations are most defensible when the need for the regulation is clear and supported by the preponderance of reliable evidence. An exception to this is where gathering evidence about the effect of a proposed regulation promises to remain impossible for the foreseeable future, where the problems the regulation is meant to address are clear and specific, and where the means by which the regulation will address the problems are intuitive to a supermajority of those who know the most about the problem in question. None of those conditions is met by the Proposed Rules. The Memos make clear that there is no evidence showing the Proposed Rules will have net benefits, and nothing in the Statistics Memo suggests that the absence of reliable evidence on whether such benefits exist is permanent.

Nor are the Proposed Rules designed to respond specific, clear problems in the fund industry. I recognize the SEC staff has in the past taken a different view,[65] stating that the Proposed Rules will enhance legal compliance and the ability of fund boards to oversee conflicts of interest between funds and advisors. But the Research Memo could have noted that no rigorous empirical support exists for these claims.

It is also worth emphasizing that all of the anecdotes about the market timing and late trading scandals described in the SEC staff's 2005 study of the Chair Mandate occurred in an environment when, as the staff itself emphasizes, fund compliance officers often did not report directly to fund boards.[66] Those anecdotes thus undermine the case for the Proposed Rules, since with the SEC's adoption of the rule mandating a chief compliance officer who reports directly to the board, the "compliance reporting gap" that those anecdotes might have suggested was a general problem is no longer plausible. Nor are

[65] SEC Staff Report to the SEC, Exemptive Rule Requirements of 2004: The Independent Chair Provision (April 2005).

[66] Id. at 74-75.

the Proposed Rules designed to respond to specific agency problems said to exist in the fund industry, as discussed in section II above and section V below.

IV. Research on operating companies is not likely to carry over to mutual funds

The Research Memo relies heavily on research on corporate governance on operating companies, and acknowledges that this research may not carry over to mutual funds.[67] The Research Memo does not, however, set forth all of the relevant reasons that this research is not applicable to mutual funds. Put simply, mutual funds are much more heavily regulated, have very different relationships with their investors, and conduct a much narrower range of operations, than do ordinary operating companies. These differences make it even less likely that governance mandates would improve investor welfare in the fund context than they would in the operating company context. Although these points will be well-known to the SEC and to the Chief Economist, they are worth emphasizing to reinforce the degree to which the Research Memo's attempt to draw inferences from research on operating companies is undermined by these differences.

By any objective measure, mutual funds are more heavily regulated than operating companies generally, even publicly held companies. Mutual funds must comply with all of the disclosure rules generally applicable to publicly held companies, but must also comply with a large number of additional rules. Mutual funds are tightly restricted in their capital structure (especially leverage) and ownership structure; operating companies are not. Mutual funds are already effective required to have boards of directors with a majority of independent directors, they have regulatory incentives to maintain a supermajority of independent directors, and they are either required to have, or have incentives to have, independent directors approve a number of specific transactions. Even after the NYSE/Nasdaq corporate governance reforms of 2002, operating companies are not subject to the same breadth or degree of governance mandates as mutual funds.

In particular, mutual funds are subject to detailed federal laws and regulations that channel the myriad ways that managers can extract value from funds into a single, readily monitored path – advisory fees; operating companies face much looser constraints on self-dealing transactions.[68] Fees, in turn, are subject to heightened procedural requirements: all fee increases must be approved by fund shareholders;[69] independent fund directors must approve all advisory contracts, including advisory fees, at least

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[67] Research Memo at 8, 22-23.

[68] See generally John C. Coates, IV, "Fair Value" as a Default Rule of Corporate Law: Minority Discounts in Conflict Transactions, 147 U. Penn. L. Rev. 1251 (1999) (discussing management buyouts, freezeouts and other conflict transactions and the way such transactions can allow control persons to extract value from partially owned corporations); Simon Johnson, Rafael La Porta, and Florencio Lopez-de-Silanes and Andrei Shleifer, Tunneling, 90 Am. Econ. Rev., Papers and Proceedings 22 (May 2000) (arguing civil law countries permit more tunneling than common law countries, but acknowledging U.S. law as applied to operating companies only imposes loose controls on certain types of tunneling).

[69] 15 U.S.C. §80a-15.

annually;[70] and independent third-party service providers (such as Morningstar) now provide free and easily obtained comparative fee data on the internet.[71] None of that is generally true of operating companies. Finally, and also unique to the fund industry, firms who provide advisory services to funds are required to act as fiduciaries in regard to their compensation from funds and fund shareholders, and shareholders may sue in federal court for excessive compensation.[72]

Second, mutual funds have a very different relationship with their investors than do operating companies. In addition to existing regulations and governance mandates, mutual funds are also subject to a number of self-imposed contractual restrictions that are reinforced by regulation.[73] Investment companies that hold themselves out as open-end mutual funds, in particular, must redeem investor shares on demand at net asset value, something that no operating company does. The feature of redeemable shares is one of the key institutional features of mutual funds that force mutual funds to be far more sensitive to shareholder concerns than is true of operating companies. Many operating companies are invulnerable to hostile takeovers, because of ownership structure or takeover defenses, and if they do not anticipate needing to return to the equity capital markets in the foreseeable future, can effectively ignore investor demands for an extended period of time. A mutual fund that did so would soon be out of business.

Put differently, mutual fund investors hold both *product market* power and *capital market* power over funds. An operating company might stumble in the product market, but because it has locked in its equity capital, it will have some time to regain the confidence of its customers. An operating company might stumble in the capital market, by missing an earnings target, but as long as it continues to keep its customers happy, it will have some time to regain the confidence of the stock market. A mutual fund that stumbles in either market simultaneously creates unhappy customers and unhappy shareholders – who can quickly flee with their business and their capital.

Because of the regulatory and contractual differences just described, mutual funds conduct a much narrower range of operations than other companies generally do. As a result, the transparency of a typical mutual fund is much greater than is the case with a typical operating company. Mutual fund boards confront a narrower range of issues for decision or review than is typical of publicly held operating companies. Operating companies engage much more frequently in transformative acquisitions, buyouts, mergers, spin-offs, split-ups, recapitalizations, and other transactions dramatically affecting investor interests than do mutual funds. Operating companies go bankrupt; mutual funds do not.

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[70] Id .

[71] E.g., http://www.morningstar.com/ (last visited 1/21/07).

[72] 15 U.S.C. §80a-36(b).

[73] See note 46 above.

As a result of these differences, a large portion of the Research Memo is simply inapposite to the Proposed Rules. Many of the Research Memo's pages are devoted to reviewing research on operating companies, none of which is likely to carry over to any significant degree to the mutual fund industry. While the theory reviewed may have some application at a very general level of abstraction, the institutional context in which mutual funds operate make it highly unlikely that the same empirical tests of, for example, agency theory in the operating company environment would have much relevance to an evaluation of the same theory as applied to mutual funds.

V. The Mandates are not likely to provide net benefits, given existing rules

Putting the bottom-line findings of the Memos together with the foregoing, it seems highly likely that the case that the Proposed Rules will not improve fund investor welfare. No evidence suggests that they will. To the contrary, the available evidence suggests that (a) the Proposed Rules will eliminate value-enhancing flexibility and variation in fund governance, and (b) the Proposed Rules are unnecessary because investors can already discipline funds and advisors for failing to use that flexibility to choose an optimal governance structure. Further, available research suggests that the same theoretical problem that the Proposed Rules are meant to address may add costs as well as benefits for fund investors (due to excessive risk-aversion, excessive spending on compliance, inadequate levels of effort, and excessive director compensation), and the Proposed Rules may also increase conflict and reduce trust within the board, reduce the coherence of leadership, increase managerial compensation, reduce managerial effort, and reduce board effectiveness by increasing board size.

The Research Memo's broad suggestions about agency theory as applied to mutual funds, and its specific claims about the forms that agency costs take in mutual funds, are not supported by robust evidence. Where the Research Memo does point to evidence from academic studies, those studies do not support the broad claims made in the Research Memo, report findings that are contrary to the claims made in the Research Memo, or are inconsistent with other studies, including studies cited elsewhere in the Research Memo. Finally, the Research Memo's attempt to rely on research on operating company governance is subject to three important qualifications not adequately emphasized in the Research Memo: funds are much more heavily regulated and contractually constrained than are operating companies, fund investors are also their customers, and fund operations are much narrower and simpler to evaluate than is the case with other companies.

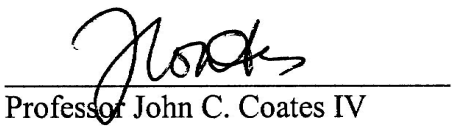
The Memos also do not relate the economic literature relevant to the Proposed Rules in one last, vital respect. They do not take on the task of using existing research (or analysis) to relate the *specifics* of the Proposed Rules to any of the theoretical agency problems that the Research Memo draws from the literature (i.e., suboptimal board structures, risk differences or risk shifting, cross-subsidization, etc.). Put in economic terms, the Research Memo reads as if the task were to assess the absolute or average value of fund regulation, rather than the marginal value of additional regulation. Put in English, the bulk of the Research Memo's literature review answers the question "Is the

Investment Company Act of 1940 a good idea?" rather than the question "Are the Proposed Rules a good idea?"

The answer to the latter question, on the basis of the evidence in the Memos and the facts reviewed above, seems to be "no." As reviewed in section IV above, funds are already subject to stringent regulations that are specifically directed at many of the theoretical problems identified in the Research Memo. For example, transactions through which cross-subsidization most plausibly could take place – trades between funds within a complex – are already subject to the *separate* approval of independent directors. Adding more independent directors to the board, or requiring an independent chair, will not add a material check on such transactions. If adviser or manager risk preferences differ from investors, those differences are a brute fact that the Proposed Rules cannot change. If those differences or incentives cause fund managers to alter portfolio risk in ways that cannot be detected *ex ante* by a fund's compliance officer, or *ex post* by either the SEC or investors (or third-party service providers) armed with a full list of the fund's investments, then it seems highly unlikely that marginally increasing board independence will cause a fund board to detect such risk alterations in real time, as they happen.

Most importantly, as discussed in section II.b above, the existing ability of the independent directors of the vast majority of mutual funds to control the nominations of new directors and the choice of the fund board chair means that the Proposed Rules will add nothing to the ability or incentives of fund boards to choose an optimal governance structure. To the contrary, by further restricting the ability of fund boards to choose different structures, the Proposed Rules will reduce the authority that the SEC has already effectively mandated for independent directors.

Very truly yours,



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Competition and Shareholder Fees in the Mutual Fund Industry: Evidence and Implications for Policy

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Executive Summary

This paper examines claims that price competition in the mutual fund industry either does not exist or is too weak to prevent anticompetitive pricing by investment advisors to retail investors. These claims draw on a view of mutual fund competition tracing to the 1960s, which was not supported by economic analysis. In contrast to the 1960s view, contemporary analysis demonstrates that competition in the mutual fund industry prevents "excessive fees." Numerous structural and performance characteristics of the mutual fund industry demonstrate that it is price competitive. Demonstrating that competition is present, and not limited by the fund-advisor governance structure, is sufficient to reject claims of "excessive fees." These observations about the centrality of price competition from an economic perspective imply a prominent role for competition as a factor in the legal analysis of "excessive fees" in the framework of the *Gartenberg* decisions interpreting Section 36(b) of the Investment Company Act.

Our paper offers the following conclusions, each of which corresponds to a major section of the paper.

The Structure of the Mutual Fund Industry Is Conducive to Competition.

The mutual fund industry is a classic, competitively structured industry, with hundreds of competing firms offering thousands of products, low barriers to entry and firm expansion, and low concentration. Any attempt at pricing above the competitive level is threatened by lower prices from rivals and entrants, and investors switching to rival firms.

Fund shares are purchased through numerous competing distribution channels, ranging from direct purchases by investors from funds to purchases through brokerage houses, independent financial advisors, banks, insurance companies, and pension plans. Investors are free to choose the channel offering them the best price and service.

The Performance of the Mutual Fund Industry Is Competitive.

Claims that price competition is absent among equity mutual funds are unfounded. Investors have thousands of rival, substitutable product choices, and face small transaction costs in moving from one fund to another. Fee waivers and price decreases are at least as common as price increases. Fund complexes frequently attempt to undercut rivals' prices.

Investors' demand for equity mutual funds is sensitive to shareholder fees. Investors concentrate their investments in low-fee, high-return funds for a given risk class. We estimate that, on average, a 10 percent increase in equity fund fees leads to an approximately 25 percent decline in a fund's asset share and a 15 to 18 percent decline in a complex's share of total assets managed by mutual funds.

Equity fund complex market shares change from year to year, reflecting in part the relative ability of complexes to attract investors through lower fees and higher returns.

Claims that expense ratios have risen since the 1970s, reflecting a lack of price competition, do not survive careful scrutiny. Recent economic research shows that expense ratios both rise and fall, depending on the fund sample and time periods examined, and that when total costs are measured – including load fees – expense ratios have fallen consistently since 1980.

The existence of price dispersion across funds within various investment objective categories offers further evidence of price competition and consumer choice. Price dispersion reflects, among other factors, differences in services and the quality and content of services sought by investors, as well as consumer search costs, including the opportunity cost of investors' time.

The Competitive Market for Mutual Funds Is Consistent with "Pricing Anomalies" Noted by Critics.

Studies report economies of scale and scope exist in mutual funds and mutual fund complexes, benefiting investors. However, the 1960s view that such economies necessarily lead to declining mutual fund costs in the long run is not consistent with economic theory. Economies of scale across firm sizes do not imply that costs will necessarily decline over time with ever increasing volume. Moreover, economies of scale do not rule out competition or drive market structure in the mutual fund industry. Hundreds of smaller funds and complexes successfully compete against much larger funds and complexes, suggesting that such economies are relatively modest.

The differences in fees paid by institutional and retail mutual fund investors are consistent with a competitive market, and fee disparities reflect differences in services provided. For example, while both public pension plans and retail clients seek traditional portfolio management services, retail portfolio management also involves managing portfolio liquidity to minimize the cost of accommodating investors' deposits and redemptions, and costs for websites and investor information, trading, and financial counseling. In contrast, external portfolio managers for public pension plans generally devote minimal if not zero resources to liquidity management and incur little or no costs for pension investor websites, telephone access, and counseling services.

Investors capture so-called fall-out benefits, consistent with a competitive market. Attempts to exploit investors by withholding fall-out benefits will be undercut by rival mutual funds.

The Governance Structure of Funds Does Not Forestall the Ability to Capture the Benefits of Competition.

In over 40 years of head-to-head competition between the internal and external governance structures of mutual funds, the external form has proven more efficient and thus beneficial to investors. Regardless of whether internal or external forms are used, investment advisors earn their profits on invested capital from fund shareholders, must earn a competitive rate of return, and must charge investors competitive fees to survive. If internal organizational forms provided investors with more protection against conflicts of interest between shareholders and advisors, holding other factors constant, they would have prospered in much larger numbers relative to external forms.

Shareholders' best protection against conflicts of interest is a competitive market. Investors seek high returns and low fees. To gain new customers and expand assets under management, advisors seek high returns, which are produced in part by low fees. Thus, competitive market conditions provide a common goal for investors and advisors.

The Competitive Market for Mutual Funds Suggests Caution for Regulatory or Judicial Intervention in Fee Setting.

Economic analysis suggests limiting principles for the law and regulation of mutual funds. The law does not provide for rate regulation of shareholder fees or mandatory bidding for advisory contracts. Instead, the law relies on competition to prevent rates above the competitive level.

These limiting principles are consistent with Section 36(b) of the Investment Company Act, which established the fiduciary duty of investment advisors to fund shareholders regarding the advisors' compensation.

As interpreted in the legal framework established by *Gartenberg*, Section 36(b) imposes an upper bound on advisory fees and requires a full consideration of all facts relevant to advisory fees, including the existence and effect of price competition.

Economic analysis, limiting principles, and changes in the mutual fund industry suggest the importance of competitive market conditions as a factor to be considered under the *Gartenberg* legal framework

Competition and Shareholder Fees in the Mutual Fund Industry: Evidence and Implications for Policy

John C. Coates IV and R. Glenn Hubbard[1]

I. Framework for Assessing Competition in the Mutual Fund Industry

A. Contemporary Analysis of the Fund Industry Centers on Competition

Despite the enormous growth and acceptance of mutual funds by millions of individual and institutional investors, mutual funds have periodically been accused of charging investors excessive fees – that is, fees above the competitive level.[2] From an economic perspective, however, a competitive market is the best guardian against fees above the level required to guarantee a well functioning market. With price competition, fund advisors cannot set fees above the competitive level in the long run without driving themselves out of business.

This paper is organized around evidence for and implications of a contemporary view of the mutual fund industry. Section II begins with a review of the structure of the mutual fund industry; structural factors are conducive to competition in the industry. We present the core of our economic analysis in section III, offering evidence that the performance of the mutual fund industry is consistent with competition. In addition to analyzing competitive dynamics in price decreases and market shares, we offer new empirical evidence documenting that investor sensitivity to fees leads funds to compete on fees.[3] In section IV, we address "pricing anomalies" noted by skeptics of mutual fund price competition. We conclude that shareholders capture economies of scale and scope as well as so-called "fall-out" benefits. We also explain that the differences in fees paid by institutional investors and retail mutual fund investors are consistent with a competitive market. Section V extends our analysis of competition for investors to the governance structure of funds; we conclude that the governance structure of mutual funds does not prevent investors from capturing the benefits of price competition. Finally, in section VI, we consider implications of our economic analysis for regulatory or judicial intervention. We argue that the competitive market for mutual funds suggests caution for regulatory or judicial intervention in fee setting. In particular, economic analysis and changes in the mutual fund industry suggest the importance of competitive market conditions as a factor to be considered under the *Gartenberg* legal framework.

B. An Alternative Approach: The 1960s View of Investor Fees Ignores the Contemporary Economic Framework and Evidence

Claims of excessive fees in equity mutual funds first arose in the 1950s and 1960s, when the mutual fund industry was far different in structure and scope than it is today. In the early 1960s, there were fewer than 200 mutual funds and most were load funds. The U.S. Securities and Exchange Commission ("SEC") contracted in 1958 with the Wharton School of Finance and Commerce to conduct a study of the mutual fund industry. The Wharton Report, issued in 1962, concluded that mutual fund assets grew substantially in the 1950s, providing lower cost through economies of scale, yet shareholder fees remained at approximately 0.5 percent of assets for most mutual funds.[4] The report also concluded that investment advisor fees were lower for non-mutual fund clients, where advisors were allegedly easily fired, in contrast to mutual funds.[5] The report concluded that competition had "not been substantially operative in fixing the advisory fee rates paid by mutual funds"[6] because lower costs from economies of scale had not led to lower fees and because advisors did not compete for retail mutual fund contracts. The Wharton Report, however, did not test for the existence and size of economies of scale and offered no evidence that costs had declined. It simply assumed such economies were prominent and had resulted in lower costs for mutual funds. Additionally, no analysis of non-mutual fund clients was offered; nor did the study attempt to adjust for differences in asset size, size of accounts, number of accounts, and other factors that distinguished mutual fund and non-mutual fund clients. Finally, the report offered no economic basis whatsoever for the claim that price competition depended on advisors competing for mutual fund contracts.

The SEC issued a report in 1966, accepting without question the Wharton Report's conclusions that the organizational relationship between investment advisors and mutual funds made arm's-length bargaining on shareholder fees impossible due to the leverage that advisors had over mutual fund boards of directors, and that competition on fees was absent.[7] The SEC concluded that then current law in the Investment Company Act of 1940 ("ICA") and SEC regulations did not protect investors from excessive fees.[8] To guard against the possibility of excessive fees, Congress amended the ICA in 1970 by requiring advisors to act as fiduciaries in regard to their compensation from shareholders and granting shareholders the right to sue based on claims of excessive fees.[9]

The size and number of competitors in the mutual fund industry have changed drastically since the SEC and Wharton reports. According to the SEC, in June 1966, there were 379 mutual funds in the United States with assets of $38.2 billion and approximately 80 percent of mutual fund assets were accounted for by load funds.[10] In 2004, there were over 8,000 mutual funds with assets of $8,100 billion, and no-load funds accounted for the majority of fund assets.[11] Particularly since the early 1980s, there

has been significant new entry and existing firm expansion.[12] In addition, numerous innovations have changed the mutual fund industry since the 1960s. For example, money market funds, index funds, exchange-traded funds, fund supermarkets, and defined contribution pension plans all came into existence since the 1960s.

Despite increases in the number of competing funds and distribution channels, the 1970 ICA amendments and additional legal protections for fund shareholders (discussed in section VI below), and limits in the economic analysis underlying the 1960s view of excessive mutual fund fees, this view was revived in 1998 Congressional hearings.[13] According to the 1960s view, excessive mutual fund fees and the absence of price competition have allegedly persisted because: (1) investment advisors do not compete for contracts to manage mutual funds; (2) advisors control the mutual funds' boards of directors, so that advisors are not vulnerable to being fired and the boards have little independent power to contest the fees charged to shareholders; and (3) advisors deny investors clear knowledge of the fees they are paying.

At the heart of the 1960s view is a perceived conflict of interest between investment advisors and mutual funds. A mutual fund is created and operated by the fund's investment advisor, who also appoints the fund's initial board of directors. The fund's board of directors contracts out all services to the investment advisor. The fees that an advisor charges a fund for the advisor's services require approval by the fund's board of directors (as well as the shareholders for any fee increase).[14] The conflict is seen as the advisor's incentive to maximize its profits by charging the highest possible fees for its services, the fund's shareholders' desire to minimize fees so as to maximize the fund's return on investment, and the advisor's alleged control over the fee approval process. Because they are generally not vulnerable to being fired by the mutual fund's board of directors, advisors are sometimes alleged to be dealing in effect with themselves when seeking approval of shareholder fees.[15]

There are two primary types of this alleged conflict of interest. One is the conflict between those wishing to sell at the highest price and those wishing to buy at the lowest price. This conflict is, of course, inherent in all economic transactions and such conflicts are addressed in a market economy by ensuring that competition prevails. Under competition, sellers and buyers transact exchanges at competitive prices. Under competition, the desire to maximize profits forces firms to minimize costs in order to survive in the long term.

The second type of alleged conflict is the advisors' alleged ability to have noncompetitive shareholder fees approved by the mutual funds' boards of directors. But mutual fund investors have alternative mutual fund and non-mutual fund investment choices. While investment advisors may typically not compete for mutual fund contracts (although some compete to be sub-advisors to other

funds), advisors clearly compete for individual investors' assets by striving for superior returns in order to increase money inflows. Investors in turn can fire any investment advisor on their own by redeeming their shares and investing their assets elsewhere. If price competition prevails, advisors' attempts to charge excessive fees relative to the services offered will fail in the long run as investors move to lower-fee funds. As long as investors can switch at relatively low cost to lower-cost, better-performing funds, excessive fees cannot persist for more than a short period of time despite the perceived conflict of interest between advisors and fund shareholders.

Proponents of the 1960s view try to buttress their conflict-of-interest theory with claims that investment advisors engage in fee competition for institutional clients but not for mutual fund clients. The explanations offered for these contrasting views are that investment advisors engage in competitive bidding to manage portfolios for institutional clients and institutions can fire external investment advisors on short notice.[16] By contrast, retail investment advisors are rarely fired by their mutual funds for either poor performance or fee levels.[17] The alternative, investors firing the investment advisor by moving to lower-cost, higher-return funds, is given little credence in the 1960s view. The 1960s view concludes that competition has not served to protect the interests of retail mutual fund shareholders by ensuring that they pay no more than competitive fees.[18]

II. The Structure of the Mutual Fund Industry is Conducive to Competition

Basic economic theory shows that price competition is determined, in part, by the number of rivals and the extent of barriers to entry and expansion (and thus the effect of potential competition on existing competitors). In addition, both law and regulation provide additional support for price competition in a given industry. In this section, we review the evidence on market structure in the mutual fund industry, and show that structural conditions are consistent with and conducive to the presence of price competition.

A. Trends in the Number and Concentration of Assets in Mutual Funds and Fund Complexes Support Competition

As noted, one element of economic models of competition is the number of firms competing in a market. While under certain market conditions two firms are sufficient to assure competitive prices, various models show that the larger the number of rivals, the more choices available to consumers and the greater the likelihood of competitive pricing.[19] Thus, the greater the number of rivals and choices available to buyers in a market the less likely is collusion and rivals fixing prices above the competitive level.[20] Empirical studies of auction markets and various product lines, such as airlines, railroads, books,

and pharmaceuticals, show prices declining as the number of bidders or rivals increases and as concentration of sales in a few firms declines.[21]

The mutual fund industry offers many choices for investors, and with choice comes competition. There are thousands of mutual funds divided among equity, bond, balanced (stocks and bonds), and money market funds.[22] Using data on equity funds from Strategic Insight, Table 1 shows the number of U.S. equity funds and complexes annually from 1985 through 2004. The number of equity funds and complexes has increased dramatically since 1985. Funds are offered by hundreds of complexes and single fund investment advisors. Figure 1 shows the distribution of funds by complex size in terms of number of funds from 1985 through 2004. The majority of funds, over 70 percent, exist as single funds or part of complexes up through 10 funds. However, fund complexes with from 11 to over 100 equity funds have increased their share of total funds since 1985.

Table 1 also shows that the Herfindahl-Hirschman Indexes ("HHI") of industry concentration for equity funds and for complexes (measured as the sum of the percent market shares of funds or complexes) are relatively low, indicating that no fund, complex, or small group of funds or complexes, has a dominant market share. The HHI for funds has fallen steadily as the number of funds increased, while the HHI for fund complexes has risen since 1985 but has remained low. HHIs with a value of 1,000 or less are considered consistent with competition by the U.S. Department of Justice and Federal Trade Commission horizontal merger guidelines.[23] Similar results of relatively low fund HHI levels are shown in Table 2 for the five largest Morningstar investment style categories. As the number of funds increased, concentration declined. Table 3 presents a comparable table at the complex level, where there are fewer entities, and somewhat higher HHIs. HHIs fell in each category over the period to below 1,000, except for the large-cap value category, which declined from 1985 but remained slightly above 1,000 in 2004. However, the HHIs remain today well below what would be considered high levels of concentration – that is, sales dominated by a few funds or complexes.

With thousands of investment choices available to individual investors from hundreds of investment advisors, the likelihood of price collusion is virtually zero. An individual firm gains more from deviating from a price-fixing agreement than by adhering to price collusion, so the likelihood of effective price collusion decreases with the number of firms. Thus, the structure of the mutual fund industry, with thousands of funds and hundreds of investment advisors competing for investors, implies effective price competition.

Firms have different business models and strategies. Some choose to compete for investors by offering extensive services, incurring higher costs with commensurately higher prices, while others choose to compete with less service, lower overhead, and lower prices. With hundreds of complexes

seeking to gain a competitive advantage on their rivals, "price" is an integral element of competition. The view that all fund complexes select not to compete on price, when price competition can gain new customers and increase advisor profits, is economically unfounded.[24]

B. The Absence of Barriers to New Firm Entry and Expansion of Existing Firm Supports Price Competition

Conditions that facilitate entry of new firms and expansion of existing firms enhance price competition. Low barriers to entry and expansion inhibit existing firms from raising price (adjusted for product quality and customer service) above the competitive level. Although price competition *per se* is not inconsistent with high barriers to entry and expansion, potential entry and expansion enhance price competition.

The most direct indicator of barriers to entry and expansion is the extent of actual firm entry and existing firm expansion. Recall that Table 1 demonstrated that the number of equity mutual funds and complexes have grown at a rapid pace since 1985. New mutual funds have been created by both new and existing firms expanding the breadth of their fund complexes. Many of the funds and complexes existing in 2004 entered from 1985 to 2004.[25] Table 4 shows the 20 largest equity mutual funds in 2004 that did not exist in 1994 and Table 5 shows the same thing for equity complexes. The top fund entrants are larger than 95 percent of existing funds while the top complex entrants are generally larger than approximately 70 percent of existing complexes. Funds and complexes entering in the past 15 years have secured billions in new investments. Existing firms have also expanded through new investment flows and asset appreciation.[26] A further indicator of growth in the number of funds is presented in Figure 1, which presents the distribution of funds by complex size. Complexes in various sizes from 6 to 100 funds have increased in the number of funds offered. Given no substantial barriers to entry and expansion in equity mutual funds, as indicated by new entry since 1985, there is little basis to claim that such funds have been able to price above the competitive level.

The 1960s view claims that investment advisors earn above competitive rates of return owing to their pricing above the competitive level. Absent barriers to entry and expansion, this observation simply cannot be correct. While some firms will earn above average returns owing to their superiority, with no significant barriers to entry and expansion investment advisors will not earn monopoly rates of return. Instead, there will be a distribution of returns to investment advisors, with superior firms earning above average returns and funds with persistently low returns unable to attract new investment funds and possibly exiting or being merged into better-performing mutual funds. At the margin, firms that remain will earn a risk-adjusted, competitive rate of return.

C. Numerous Distribution Channels and Trends in Distribution Costs Promote Competition

Multiple channels of distribution offer more industry contacts with consumers and greater competition. The more channels the more competition for mutual fund investors, and the more competition for investors the greater the pressure on shareholder fees. Mutual funds are distributed through a variety of channels, all competing for investor funds. With multiple funds competing in each channel, the structure of distribution channels in mutual funds is consistent with price competition. Institutional investors have their own channel, with direct sales from mutual funds to institutions. Current channels include: (1) direct sales,[27] (2) retirement plans,[28] (3) full-service financial firms,[29] (4) fund supermarkets and discount brokers,[30] and (5) direct sales to institutional investors.[31]

Mutual fund purchases in 2001 by major distribution channel segment were approximately: 48 percent through retirement plans; 37 percent through sales force outlets, such as brokers, financial advisors, and insurance brokers; 10 percent through direct sales by funds; and 5 percent through broker-provided fund supermarkets, whereas in 2005 60 percent of shareholders used defined contribution retirement plans as their main mutual fund purchase source.[32] The growing importance of retirement plans, such as 401(k) plans, as a main channel for mutual fund investments place additional price pressure on mutual funds as funds compete to be one of a limited number of employee fund investment options. To be selected by an employer, acting as an agent for employees, a fund must offer competitive prices.

Multiple share classes with different fee structures also provide alternatives for purchasing mutual funds. Investors have a range of price choices, depending in part on how long they intend to hold the mutual fund assets. For those purchasing load funds, there are A, B, and C class shares. The A class shares are most common, generally having a front-end load at the time of purchase and a small annual 12b-1 fee. B class shares have a 12b-1 annual fee and a back-end load, more formally known as a contingent deferred sales load ("CDSL"). After the first year, the CDSL generally decreases by one percent each year until reaching zero. C class shares are a modified form of B class shares; they have a 12b-1 annual fee and a CDSL set at one percent the first year, and generally not charged thereafter.[33]

Funds are subject to competition in each share class. Investors can chose which class is most suitable for financing their mutual fund investments, and determine which fund offers the best financial terms.

Distribution costs have been declining since 1980, with average equity fund distribution costs declining from 149 basis points in 1980 to 40 in 2001.[34] Part of the decline came from a shift by consumers from load to no-load equity funds, with no-load funds increasing from 34 percent of total

equity sales in 1980 to 58 percent in 2001.[35] Among funds with loads, average load fees declined from 227 basis points in 1980 to 47 points in 2001, and average maximum equity load fees fell from 7.4 percent in 1980 to 4.9 percent in 2001.[36] This decline was partially offset by a rise in average 12b-1 fees from 15 basis points in 1985 to 43 in 2001.[37] The net decline in distribution costs from load and 12b-1 fees provides unambiguous evidence of price competition in the total fees facing equity mutual fund customers.

D. Law and Regulation Offer Structural Underpinnings for Competition

Law and regulation offer important structural underpinnings for competition in the mutual fund industry. In particular, restrictions under the ICA and SEC have helped funds successfully compete with other sectors of the financial services industry; that is, investors could invest in funds knowing that the usual temptations for self-dealing or outright theft were greatly mitigated by law and regulatory oversight.[38] Unlike traditional business corporations, funds are subject to detailed laws and regulations that channel the myriad ways that fiduciaries can extract value from funds into a single, readily monitored path – advisory fees.[39] Regulators require that fee increases be approved by fund shareholders (who have little interest in raising fees). Recent scandals involving the fund industry do not change the fact that the industry has long been regulated and that it has been a remarkable success not only from the perspective of growth, but also in remaining relatively untroubled by serious financial lapses (compare the thrift crises of the 1980s, the bank crisis of the early 1990s, and the large numbers of complaints brought by individual investors against brokers in the last few years).[40] The indignant and rapid public and regulatory response to the discovery of late trading and undisclosed frequent trading (both of which were already illegal) demonstrates the seriousness of the oversight of funds.[41] More directly relevant to fees, fund directors are subject to fiduciary duties under both the ICA and state corporation or equivalent business trust law.[42]

Another legal restraint – from an economic perspective arguably more important in structurally supporting competition than the ICA, SEC or fiduciary duties – is embedded in the contracts between funds and fund shareholders: *redeemable shares*.[43] Investors' ability to demand nearly immediate repayment of their investment at current net asset value ("NAV") is the defining feature of the open-end investment company (that is, the mutual fund).[44] While the ICA and SEC regulations help make redeemable shares even more effective at providing investors with assurance that advisors will deal fairly with funds, it is worth noting that redeemable shares in mutual funds were developed in the marketplace in the 1920s, and that market forces had already begun to allow mutual funds to dominate closed-end companies prior to enactment of the ICA.[45] Along with mandatory disclosure, the requirement of an independent custodian for fund assets, and rules governing how NAV is calculated, the simple mechanism

of redeemable shares is perhaps the most important aspect of fund regulation – often neglected by critics[46] – that directly facilitate competition in the fund industry. That redeemable shares facilitate competition among funds is consistent with the fact that, in the market for pooled investments, open-end companies with redeemable shares have largely displaced closed-end funds, which lack redeemable shares and instead sell shares only on a sporadic basis.[47]

III. The Performance of the Mutual Fund Industry is Competitive

In addition to theory and evidence showing that the structure of the fund industry is price-competitive, the performance of the industry and the behavior of investors show that it is price competitive. Funds have frequently reduced fees, as we review in subsection A, and the evidence of overall trends in fees is at least as consistent with long-term reductions in fees as it is with long-term increases (subsection B). Funds and fund complexes experience large and frequent changes in market shares (subsection C), and we provide new econometric evidence showing that an important factor in the demand for funds and complexes is investor sensitivity to fees and changes in fees (subsection D). Funds with lower expenses, holding other factors constant, perform better – that is, have higher net returns. Such funds outperform rivals and grow in asset size.[48] Shifts in funds' size are therefore indicative of relative returns and price competition.

A. Price Reductions Provide Evidence of Competition

A clear example of price competition takes place in money market mutual funds. Differences in money market fund net returns can be traced to differences in shareholder fee expenses, with the lowest-fee money market fund having the highest net return.[49] Susan Christoffersen found that close to 80 percent of institutional money market fund managers waived almost half of their contractual advisory fees and 55 percent of retail money market fund managers waived almost two-thirds of their contracted-for fees.[50] Almost half of money market fund total expenses were being waived in the early 1990s. Low-performing retail and institutional funds waived fees to improve their net performance and ranking relative to rivals. High-performing retail money market funds also waived fees to improve performance in an attempt to increase investment flows into their funds. For equity mutual funds, Christoffersen found that 37 percent waived fees to be more price competitive. Christoffersen also found that fee waivers changed frequently throughout a calendar year, reflecting price responses to competitive pressures. Such widespread waiving of fees by investment advisors reflects price competition in both money market and equity mutual funds.

Table 6 shows the number of equity mutual fund classes annually with fee waivers in the Simfund dataset. Over 40 percent of the share classes waived fees annually since 1998, with 48 to 49 percent in recent years. Price reductions through waivers rose substantially since 2001.

Also seen in Table 6 is the number of equity share classes with fee increases, decreases, and no change in price. Fee decreases occurred more frequently than fee increases in some years. The 1960s view's claim that conflicts of interest determine advisor fees implies that fees never decline and are pushed steadily upward in the absence of price competition. The evidence is to the contrary; fee decreases are relatively common.

B. Trends in Shareholder Expense Ratios Offer Evidence of Price Competition

Proponents of the 1960s view contend that average shareholder expense ratios for equity mutual funds have risen since the 1950s.[51] Based on this finding, they conclude there is no (or, at best, little) price competition among mutual funds. They argue that if price competition existed, expense ratios would have declined over time given economies of scale in mutual fund operation, especially in spreading the fixed costs of research and portfolio management over more assets through new investment funds and the large appreciation in fund assets since the 1970s.[52]

Studies of trends in average expense ratios report conflicting results, depending on the time period analyzed, how expense ratios are measured, and the sample of funds analyzed. Some studies find increasing average expense ratios over long time periods and some find decreasing ratios. Results are also mixed within shorter time periods.

Studies on trends in expense ratios tend not to follow a fixed group of funds over an extended period of time, instead focusing on all funds in a given year and comparing results across years. The number, size, and composition of funds have changed substantially over the past 25 years, and those changes have affected average expense ratios.[53] For example, higher expense ratios predominate in international funds, small-cap funds, funds in smaller complexes, and newer funds.[54] Conversely, lower expense ratios predominate in index funds, bond funds, money market funds, and large, older income and value funds.

Studies finding apparent evidence of increasing expense ratios over various subperiods since the 1970s, as shown in Table 7, include those by the SEC, John C. Bogle, Brad M. Barber, *et al*., and the Investment Company Institute.[55] For the S&P 500 Index funds, Ali Hortacsu and Chad Syverson found that while large new fund entry occurred from 1995 to 2000, it was dominated by higher-fee firms and thus asset-weighted average fees in their sample increased from 0.27 percent in 1995 to 0.32 percent in 2000.[56] The SEC concluded that the primary cause of increasing average expense ratios was that firms

shifted from load fees, which are not included in expense ratios, to 12b-1 fees, which are part of expense ratios and have been rising over time. Examining pure no-load funds, with no 12b-1 fees, the SEC found the average expense ratio rose slightly from 0.75 percent in 1979 to 0.80 percent in 1992, but declined to 0.66 percent in 1998, followed by a rise to 0.69 percent in 1999.[57] Thus, overall, the SEC actually found a decline in expense ratios.

A number of studies have found evidence of expense ratios declining over time. The U.S. General Accounting Office found the average expense ratio (without accounting for load fees) for the 46 largest equity funds, declined from 0.74 percent in 1990 to 0.65 percent in 1998, with a rise to 0.70 percent in 2001.[58] They found that 39 of the 46 funds reduced their expense ratio from 1990 to 1998, two did not change, and five experienced a higher expense ratio. Despite this general decline in expense ratios, the GAO concluded that fund advisors compete primarily on the basis of performance (returns) or services to investors rather than on fees charged. Because returns necessarily embody fees and advisors compete on returns, competition on returns includes competition on fees.

Michele LaPlante examined equity and bond expense ratios for the period 1994 through 1998, distinguishing between funds sold through no-transaction-fee fund supermarkets and those sold outside fund supermarkets.[59] The expense ratio of no-load funds available outside supermarket channels declined from an average of 0.74 percent to 0.54 percent, while the ratios of funds sold through supermarkets fell from 1.06 to 0.89 percent.[60] Expense ratios for funds sold through supermarkets were 0.17 to 0.19 percentage points higher on average than expense ratios for funds unavailable through supermarket channels due to the added cost of distribution.

As Table 7 shows, studies examining total fees, including amortized load fees, tend to find declining total fees. Examining expense ratios from 1970 to 1989 for no-load and load funds, Erik Sirri and Peter Tufano found that expense ratios rose in no-load funds from approximately 0.60 to 0.75 percent and fell in load funds from approximately 2.25 to 1.9 percent. Overall, total fees fell from 2.2 to 1.5 percent.[61] In a second study of 690 mutual funds from 1971 to 1990, the authors found that average expense ratios increased over the period from 0.96 percent to 1.44 percent, but total fees fell over the same period from 1.66 percent to 1.37 percent.[62] Studies by the SEC and Investment Company Institute looking at load fees alone found significant declines from 1980 to 1999 (SEC)[63] and from 1980 to 2002 (Investment Company Institute).[64] Calculating expense ratios by fund complex and amortizing loads, Khorana and Servaes found average expense ratios declined from 1.40 to 1.19 percent over the period 1979 to 1998.[65] Amortizing loads over a five-year period, the SEC found average expense ratios fell from 2.28 percent in 1979 to 1.88 percent in 1999.[66] Similarly, adding amortized load fees to expense ratios, the Investment Company Institute found expense ratios declined from 1980 to 2002 in equity funds from

2.26 to 1.25 percent, in bond funds from 1.53 to 0.88 percent, and in money market funds from 0.55 to 0.34 percent.[67]

These results indicate that drawing conclusions about price competition in mutual funds based on trends in expense ratios can be misleading unless one accounts for total shareholder costs, including front- and back-end loads, changes over time in the composition of the funds examined, and changes in distribution channels. The large increase in small, new funds in the 1990s and the shift in investing toward international and specialty-sector funds with higher expense ratios tended to push average expense ratios higher, while the fall in load fees pushed average total fees lower. The rise in 12b-1 fees, including financial advisor fees, tended to move expense ratios higher. In addition, the introduction of no-transaction-fee fund supermarkets in the early 1990s offered direct competition to fund complexes and thus provided easier access to more investment choices in funds and transfers between funds, but added to higher expense ratios. To summarize, the 1960s view's conclusion that expense ratios have risen over time is contradicted by numerous studies, and the results are sensitive to how the expense ratio is measured and over what period of time. Drawing a conclusion that price competition is absent in mutual funds because expense ratios are rising is unwarranted.[68]

C. Changes in Market Shares Offer Evidence of Competition

Changes in market shares are a direct reflection of competition, with more successful funds growing at the expense of rivals. Table 8 presents market shares of the top 25 equity fund complexes in select years from 1985 through 2004. As the table shows, market shares for complexes are not stable, reflecting competition among complexes. Some funds experienced substantial declines in business, such as American Express' market share falling from 3.7 percent in 1985 to 1.1 percent in 2004 and Dreyfus' share declining from 3.2 percent to 0.9 percent over the same period. Other funds experienced significant growth in share, including American Funds, Fidelity, and Vanguard. Tables 9a through 9e show similar market share data for five investment style categories. Again, market shares are far from stable, reflecting competition among complexes within investment style categories.

Even in the short term, substantial shifts in shares occur as competition on performance leads investors to shift among funds and fund complexes. Examples from Table 8 for the period 2000 to 2004 include American Funds' share increasing from 8.5 percent to 14.1 percent and Dodge and Cox's share rising from 0.3 to 1.6 percent.[69] Substantial share changes from 1990 to 2000 include Janus' share rising from 0.6 to 4.5 percent and Putnam Funds' share rising from 2.8 to 5.4 percent. American Funds outperformed the S&P 500 in recent years. As a consequence, American Funds grew faster than many of its rivals over the past three years and its share grew accordingly. American Funds' strong performance is attributed to astute stock selection as well as low shareholder fees, in some cases 50 percent lower than

similar funds according to Morningstar, enhancing American Funds' performance.[70] Low fees represent price competition and are reflected in returns to stockholders.

D. Investor Mobility Across Funds Provides Important Evidence of Price Competition

Effective mutual fund competition entails the ability to redeem shares and move assets to better performing funds. If investors' movements from one fund to another are subject to high switching costs, such as large back-end loads, and switching costs are not revealed *a priori*, investors are more susceptible to fees being raised to reflect the switching costs. Accordingly, choosing no-load funds and funds with no or reduced back-end loads facilitates investor mobility, and increased mobility enhances price competition.

However, investors can avoid switching costs on old investments by investing new contributions elsewhere. In addition, markets have evolved to minimize switching costs. Supermarket-style fund marketing provides no-transaction-fee investing in numerous funds, facilitating shifts between mutual funds. Through fund supermarkets investors can readily switch to the hot funds of the moment, or invest in a set of funds for the long term. Furthermore, fund complexes typically charge no fees for switching within the fund complex. Large fund complexes may offer scores of funds, facilitating asset allocation and diversification. Most importantly, with the widespread availability of no-load funds, switching costs are very low. The Simfund equity fund dataset indicates that 58 percent of assets were in no-load funds in 2003 and 59 percent in 2004.[71]

Equity mutual funds typically seek long-term investors. However, nothing prevents investors from switching from one type of fund to another, such as equity, bond, and money market funds; within a fund sector, such as specialized equity funds; or within bond funds. (However, funds seek to minimize high frequency trading to reduce overall shareholder transaction costs.) With low switching costs, investors can move in and out of stock, bond, and money market funds with changes in their personal requirements and market conditions, such as interest rates, unemployment, and expectations for business profits.[72]

Not all buyers have to switch from high- to low-cost products to affect price competition; only price-sensitive buyers. Given a sufficient number of buyers engaging in price search for a given quality of product and service, rivals must price competitively to retain price-sensitive customers, which benefits all their customers, both price searching and non-price searching customers. This process applies as much to mutual funds as it does to everyday goods, such as foods, clothing, and household products.

Mutual funds compete for investment funds by striving to outperform their rivals. Superior returns increase fund flows and market share. A variety of studies have tested for price competition

between funds by determining whether investor costs, expense ratios, and load fees are related to returns, fund flows, and market shares. These studies provide direct tests of price competition. For example, an inverse relationship between expense ratios and returns, flows, and market share is consistent with price competition. The lower expenses the greater returns, leading to greater fund flows and market share relative to rivals. The consensus results show price competition between mutual funds affecting market shares and fund flows. Stated differently, studies show that investors are sensitive to expense ratios, investing where expense ratios are relatively low.

Ajay Khorana and Henri Servaes examined the relationship between fund expenses and fund complex shares over the period 1979 to 1998 for the universe of open-ended fund complexes.[73] They found a strong inverse relationship between expenses and market share; the lower expenses the higher fund market share. They found the same inverse relationship between fees and market share at the fund objective level and concluded that "Competing on price is an effective way of obtaining market share."[74] The results held after they adjusted for the fact that larger funds may charge lower fees. Similar results were found by Mark Carhart who examined diversified mutual funds from 1962 to 1993, finding a negative relationship between expense ratios and fund abnormal returns and between load fees and abnormal returns.[75] To summarize, the best-performing fund complexes had the lowest fees and the highest market shares. Consistent with these findings, Barber, *et al*. found the lowest decile of operating expenses in their sample represented 36 percent of total net assets while the highest operating expense decile represented only one percent of assets.[76] Investors are sensitive to price and concentrate their investments in the lowest-fee funds.

Studies have found that fund flows are positively related to various measures of returns over the period and fund ratings, and ratings are based in large part on past returns.[77] In a sample of 690 funds from 1971 through 1990, Erik Sirri and Peter Tufano found a positive relationship between returns and fund flows and the relationship was especially strong for firms in the top quintile of returns.[78] They also found that total fees and changes in fees were inversely related to growth in fund flows. Lower-fee funds and funds that reduced their fees grew faster than higher-fee funds. In a study of 632 equity mutual funds from 1979 to 1990, the same authors found that lower-fee funds gained market share over higher-fee funds.[79] Funds charging 10 percent more than the average level (approximately 15 basis points) experienced 1.2 percentage points lower growth than funds charging the average fee.[80] Vikram Nanda, *et al*. examined the relationship between money growth in mutual funds and expense ratios, along with other variables, finding an inverse relationship; the lower expense ratios the greater the funds' money growth.[81] Specifically, Nanda, *et al*. estimated the extent to which mutual funds' cash flows are affected by their performance and the performance of other funds in the mutual fund complex. They showed that

complexes with at least one Morningstar five-star-rated fund attract greater inflows both to the star fund and to other funds in the complex. Their estimates imply that a 10 percent decline in expenses increases new fund flow by 2.5 percent, confirming the sensitivity of investors to fees.

These recent studies – confirming price competition – in which lower-fee funds have higher market share, grow faster, and have greater returns than higher-fee funds – raise additional questions, which we explore below. First, the "demand for funds" is in part a demand for the complex of funds. Second, as Michael Koehn, Jimmy Royer, and Marc van Audenrode point out, the empirical specifications used by existing studies on fund flows (such as Nanda, *et al.*) underestimate the sensitivity of investors to fees.[82]

Using the Simfund data over the period from 1998 through 2004, we find that both a fund complex's and an individual fund's total assets are very responsive to fees. (We present our findings in detail in the appendix to this paper.) In our econometric tests, we estimate the effect of fees on a fund's (complex's) total net assets in each year from 1998 through 2004. In so doing, we hold constant other factors determining investors' relative fund asset allocation. Those factors in our analysis include a fund's Morningstar rating, number of funds in a complex, complex or fund age, investment category, and channel of distribution.

We estimate a range of elasticities of market share with respect to fees for funds of approximately -2.3 to -2.8 and for fund complexes of -1.5 to -1.9. These estimates imply that a 10 percent increase in fund fees, all else equal, decreases a fund's share of total net assets by 23 to 28 percent and a complex's share of assets by 15 to 19 percent. While broadly consistent with implied elasticities estimated by William Baumol, *et al.*,[83] our estimated effects of fees are larger than those implied in some earlier studies.[84] In addition, we find that investors select fund complexes and not just individual funds in making their asset allocation decisions. Taken together, our results strongly support competitive responses of assets to fees.[85]

IV. The Competitive Market for Mutual Funds Is Consistent with "Pricing Anomalies" Noted by Critics

A. Economies of Scale and Scope in Funds and Complexes Must be Analyzed Carefully

The existence and size of economies of scale in mutual fund management, that is, declining costs per unit as output increases, have been a central issue in the debate over whether shareholders are being charged excessive fees. The Wharton Report found that investment advisors tended to charge an approximately 0.5 percent fee in the 1950s and early 1960s, and the fee did not change appreciably during

the rapid growth in mutual fund assets in the 1950s.[86] In approximately 80 percent of the funds they studied, the fee rate remained at 0.5 percent despite growth in assets managed. As a consequence, the Wharton Report concluded that investment advisors were gaining from economies of scale but not sharing the cost savings with shareholders. Had there been competition on fees, the report concluded, cost savings would have resulted in non-trivial reductions in fees. Therefore, according to the Wharton Report, mutual fund investment advisors did not compete for mutual fund contracts or investors on the basis of fees. The Wharton Report further argued that because investment advisors ran the funds and were difficult to discharge, there was a lack of arm's-length bargaining, so advisors did not have to compete on fees.

As noted above, this view, an absence of price competition on shareholder fees, was accepted by the SEC in the 1960s.[87] Indeed, the view that large economies of scale existed in mutual fund management, but were not being passed on to shareholders due to an absence of price competition, motivated the SEC to recommend changes to the ICA in the late 1960s, some of which were adopted by Congress in the 1970 Amendments to the ICA.

Lower costs per unit as output increases can arise from a variety of sources – including greater specialization in the use of capital and labor, learning-by-doing as output grows, and spreading fixed set-up and operating costs over greater output. Observers have long assumed that there are economies of scale in mutual fund operation due to fixed set-up costs. Using assets as a measure of output, they assume that the costs of securities research and portfolio management are relatively fixed so it costs roughly the same to conduct research and manage portfolios for both small and large asset portfolios.[88] Even if research and portfolio management costs increase with asset growth, economies of scale may exist if advisors become more efficient in managing resources through specialization and learning-by-doing.

Total assets in mutual funds have grown decade by decade through market price appreciation and new investment, prompting some observers to expect declining expense ratios and shareholder fees. The 1960s view claims that expense ratios have risen with asset growth, which allegedly shows that cost savings from economies of scale are not benefiting investors due to an absence of competition on shareholder fees.

This argument makes little economic sense. Underlying costs for mutual funds can increase over time while economies of scale exist at any point in time. Hence, economies of scale do not necessarily imply that average costs decline over time. Numerous industries experience large economies of scale, such as automobiles, beer, and telecommunications, while their underlying costs rise as the costs of inputs – labor, raw materials, technology, and so forth – increase. Moreover, in mutual funds, economies of scale do not rule out competition between small and large funds and complexes.

One approach to identifying the presents of economies of scale is to examine the survival of firms or plants by size distribution categories. Optimum sizes can be inferred by shifts in the size distribution of firms over time, as firms move to the most efficient size ranges or depart the industry.[89] Such analysis shows that there is a wide dispersion in sizes across mutual funds and mutual fund complexes; small funds and fund complexes have competed for years against much larger funds and complexes, indicating that there is no unique optimum size (minimum efficient scale) associated with economies of scale in mutual funds. Tables 10 and 11 present the distribution of surviving funds and complexes through 2004, respectively, by size decile, with 1 representing the bottom 10 percent. As shown in Table 10, 44.6 percent of funds in the smallest decile in 1985 survived through 2004 and 46.7 percent of the smallest funds survived starting from 1995. The survival rate of funds increases with decile size which is not unexpected because larger funds can survive a given percentage redemption rate better than smaller funds.

The matrices on the right hand side of Table 10 indicate the percentage of surviving funds that did not change size deciles (shown in bold) between the starting year and 2004. Within a given decile size, cells to the right of the highlighted cells show the percentage of funds that moved into larger size deciles over time and cells to the left show funds that moved into smaller fund deciles over time. If the 1960s view that economies of scale were large and ubiquitous was correct, small funds would suffer a cost disadvantage and would not survive. The fund survivor table shows this was not the case. Of the surviving fund in the smallest decile starting in 1985, 34 percent remained in the bottom half of the distribution. For funds starting in 1995 that survived through 2004, 66 percent remained in the bottom half of the size distribution. The analysis also shows that some funds decline in size over time, contrary to the 1960s view that economies of scale are large and pervasive.

Similar data for complexes are shown in Table 11. Of the surviving complexes in the smallest decile starting in 1985, 55 percent remained in the bottom half of the size distribution by 2004. For complexes as of 1995 in the smallest decile, 79 percent remained in the bottom half of the distribution by 2004. As with funds, large complexes frequently decline in size, indicating that smaller size complexes, as with funds, do not suffer a major cost disadvantage relative to larger size complexes.

If economies of scale in mutual funds were significant, small funds and complexes would not be cost competitive. While economies of scale in mutual funds may exist, they are likely relatively modest because small funds and complexes compete with larger funds and complexes. To summarize, the claim that economies of scale in mutual fund management necessarily lead to declining industry expense ratios over time given price competition is inconsistent with basic economics and industry reality.

Costs extend well beyond portfolio management. Management costs can include distribution and marketing costs. Such costs may be subject to economies of scope as a fund complex adds more products. Additional expenses include transfer agency, communication with investors (websites, telephone access, fund reports), custodial service, reports to regulatory agencies, brokerage fees, and overhead expenses such as management, legal, regulatory, and accounting. Whether economies of scale in these and other areas exist has been discussed in court cases challenging the level of shareholder fees.[90]

Some prominent studies have found evidence of, or evidence consistent with, economies of scale in mutual fund complexes. The studies range from simple examinations of how expense ratios change with fund asset size to econometric models of fund costs and size. Holding other influences on costs constant, such as portfolio turnover, number of funds in a complex, prior fund returns, fund objective, and age of fund, regression analysis using assets as the measure of output generally find evidence of economies of scale – that is, declining cost per unit of assets as assets increase.[91] The consensus view from regression analysis is that economies of scale exist; however, there is no consensus on the size of such economies and at what level of output unit costs no longer decline or diseconomies of scale occur.

Economies of scope (lower costs to produce two or more products jointly than to produce them independently) have also been estimated for mutual fund complexes. Adding funds to a complex can contribute to covering common costs, such as information technology and a computer system. Studies tend to find economies of scope in mutual funds for smaller complexes, implying that such economies are exhausted in the earlier stages of product extensions.[92] This finding is consistent with the evidence that small complexes compete with larger complexes, indicating that small complexes need not incur a significant cost disadvantage.[93]

To summarize, a number of studies have found evidence of economies of scale and scope in the mutual fund industry, however, the studies disagree on the magnitude of such economies. As noted, economies of scale are not so large as to limit competition to a few firms, given that hundreds of complexes of varying size compete in equity funds alone. The claim that mutual funds experience large economies of scale that do not benefit investors because expense ratios have risen over time is false; there is substantial evidence that expense ratios have declined over time and little evidence of large economies of scale.

B. Price Dispersion Supports Investor Demand for Mutual Funds in a Competitive Market

Claimants of excessive fees and expense ratios also point to the range of price dispersion in shareholder fees across passive funds, such as S&P 500 index funds, as reflecting an absence of price

competition.[94] Such claims reason that if price competition prevails, there will be little price dispersion across funds, especially for an essentially identical good like the returns on S&P 500 index funds. These claims also point to a difference in fees charged to retail and institutional investors in passive funds as further evidence that price competition is absent. If price competition existed in retail funds, as in institutional funds, according to this view there would be little difference between retail and institutional investor fees for identical services. The view implicitly assumes that the cost of duplicating the S&P 500's performance is identical for retail and institutional funds.

Common experience and economic research show that price dispersion for specific products is widespread in competitive markets and is perfectly compatible with price competition. Careful shoppers are well aware that prices for identical items differ across types of outlets, such as full service department stores versus mass merchandiser price discount stores. Price dispersion in everyday highly competitive markets is well documented by economists.[95] Economic theory shows that price dispersion in homogeneous good markets is a function in part of search costs.[96] Given that consumers lack perfect information, they search up to the point where search costs just exceed the expected lower price. Thus, search cost, including the opportunity costs of an investor's time, provide a basis for price dispersion in competitive markets.

Economic theory also points to differentiation by type of outlet, such as services offered, and differences in preferences of buyers as further causes of price dispersion among homogeneous products. Products are necessarily associated with the services, amenities, reputation, and location of outlets, which differentiates products in accordance with buyer preferences.[97] Thus, not even for physically homogeneous goods is a homogeneous purchasing experience ensured.[98]

The importance of search costs and seller differentiation in explaining price dispersion applies with equal force to variation in prices across mutual fund investors and, more specifically, investors in S&P 500 index funds. Given that there are over 8,000 mutual funds, there are obviously search costs in choosing between mutual funds. Various specialized research firms, such as Morningstar, Lipper, and Yahoo Financial, have long served the demand for information on mutual funds to reduce buyer search costs. In addition, there are thousands of financial advisors and pension plan administrators serving to economize on search costs by providing information for first-time and subsequent mutual fund investors. Moreover, while gross returns vary little across S&P 500 index funds, the funds are differentiated in terms of marketing and investor access in order to serve different segments of the demand for mutual funds. At one end is a fund like the Vanguard 500, which promotes low prices. Investors seeking a low-price fund with basic service can select the Vanguard 500, assuming they meet Vanguard's minimum investment requirements and do not subsequently fall below that minimum investment, which would trigger

additional fees by Vanguard. At the other end of the service and price spectrum are funds providing more access to fund personnel and financial advice, with higher costs of marketing. Vanguard and other funds' business model is based on being a low-cost alternative, while still other funds provide a larger set of services to investors, at a higher price.[99] That is, expense ratios will vary depending on the type of services provided and selected by investors.

Ali Hortacsu and Chad Syverson studied price dispersion and the role of search costs and seller differentiation in S&P 500 index funds.[100] They found substantial price dispersion across 85 S&P 500 index funds. At the extremes, prices ranged from 9.5 to 268 basis points. The price differences are not likely due to differences in returns because gross returns are similar across the funds. In addition, the number of S&P funds increased from 24 in 1995 to 85 in 2000. The authors ask: if entry and more firms increase competition, why did price dispersion remain wide and persistent?

Hortacsu and Syverson found that price dispersion in retail S&P 500 index funds is consistent with investor search costs, differences in services offered to investors across the funds, and changes in the demographics of investors in the late 1990s. Over the 1995-2000 period, entry into S&P 500 index funds was dominated by higher-price funds and asset market shares within this sector shifted from lower- to higher-price funds. Simultaneously, large numbers of new investors with little knowledge of mutual funds entered. As novice investors with a high demand for information, they tended to rely on financial advisors, whose services are paid for by front- and back-end loads and 12b-1 fees – that is, the highest-price funds. In the face of search costs and large differentiation across funds, new investors sought financial advice and guidance, which is not as extensively available through the lowest-price S&P 500 index funds. It is not surprising that price dispersion persisted with new entry during this time period.

Focusing on the price of an individual fund may also be misleading. The median number of funds owned by an investor is four.[101] If investors prefer the convenience of multiple funds at the same fund complex, then investors are interested in the bundled price of all their funds, including investing in the complex's index fund. The price of the fund as a standalone product is not as relevant as the bundled price across all the funds in a complex and the services received. Index funds arise to serve the divergent interests of all index fund investors, from those who seek financial advice, asset allocation recommendations, access to a broad fund complex, an inexpensive place to park their funds, high-quality investor services, and easy access to investment and redemption choices – to those who want no more than the lowest-price S&P 500 index fund with limited investor services. The range in fees reflects these divergent interests in the services sought; they are not a sign that price competition is absent.

Table 12 shows measures of price dispersion across investment styles. Price spreads differ across the various styles and sectors. As seen, the S&P 500 index fund style has the lowest median expense

ratio, but relatively high price dispersion. It is also the case that more than 90 percent of investments in the S&P 500 index sector are concentrated in funds with the lowest expense ratios, below 0.5 percent (see Figure 2). In a low-price sector, investors are concentrating their investments in the lowest-priced funds, indicating investors' responsiveness to the level of fees.

To summarize, while the 1960s view contends that price dispersion reflects an absence of price competition, the opposite is true: price dispersion is perfectly consistent with a competitive equilibrium. Indeed, price dispersion reflects search costs for some investors. Prices also differ because of cost differences across funds due, for example to average balance size. Buyer choice is a hallmark of competitive markets. The price dispersion in, for example, S&P 500 index funds demonstrates substantial choice available to investors.

C. Fees Paid By Institutional and Retail Investors Are Consistent With a Competitive Market

The 1960s view concludes that investment advisors compete aggressively on price for institutional clients, in particular public pension plans, in contrast to the alleged lack of price competition for retail mutual fund customers.[102] Starting with the 1962 Wharton Report, various studies have reported that public pension plans, due to price competition, incur lower advisory fees than retail mutual funds.[103] Some attribute the lower prices to institutional clients to the absence of a conflict of interest between investment advisors and institutional clients.[104] Advisory fees to public pension funds are viewed by the 1960s school as the competitive benchmark for what retail mutual fund prices would be if price competition prevailed.

To be meaningful, price comparisons among goods or services require the supply and demand conditions for the products to be equivalent. Without comparing the same product under the same market conditions, there is no basis for a price comparison. If retail and institutional customers consume different services or differ in the underlying cost of generating services, simple price comparisons are invalid.

On an overall cost basis, there is little justification for comparing fees paid by public pension plans and retail mutual fund shareholders. There are significant product and cost differences between advising retail mutual funds and public pension plans. Retail mutual funds provide investors liquidity, incurring costs for cash management and possibly lower returns to meet claims and the costs of processing redemptions. Retail customers purchase, sell, and communicate with funds, resulting in costs to the fund. External portfolio managers for public pension funds do not face the same costs associated with providing liquidity, websites, and shareholders moving in and out of the fund. Servicing retail

mutual fund shareholders requires providing 24-hour telephone access, Internet websites, checking and direct deposit services, tax information, transfers between mutual funds, preparation and distribution of prospectuses, reports to the SEC, and retirement plan advice. Retail mutual funds also face costs in distribution and marketing to replace redeemed assets and to grow the fund. Managing a portfolio for a public pension fund does not entail similar distribution and marketing expenses. The products and costs of servicing retail shareholders and public pension fund clients are quite distinct, invalidating any comparisons of operating expense ratios and investor fees.[105]

The Wharton Report examined 54 investment advisors on the fees they charged mutual and non-mutual fund clients. Fees were found to be at least 50 percent higher to mutual funds in 39 cases, and reached 500 percent higher in nine cases.[106] The SEC's 1966 study examined advisory fees at six banks for pension and profit-sharing plans. The fee was 0.06 percent on a portfolio of $100 million at five of the banks and 0.07 percent at the remaining bank.[107] The SEC compared these fees to the 0.50 percent fee that the Wharton Report found the majority of investment advisors at the time were allegedly charging retail mutual funds. The SEC concluded the disparity reflected a lack of price competition between retail mutual funds. However, it acknowledged that part of the fee difference came from: (1) the lower cost of managing pension portfolios owing to a greater emphasis on fixed-income securities in pension plans; and (2) the greater risk and cost of starting and operating a retail mutual fund.[108] The Wharton and SEC fee studies are examples of nonsensical comparisons of two different products with different services. In neither case is there a basis for concluding that price competition is absent in retail mutual funds.

To avoid nonsensical product price comparisons, some studies of fee levels attempt to compare like services between retail mutual funds and public pension plans, such as the pure costs of stock selection and portfolio management. They reason that such services are identical for each client base, be it retail mutual funds or public pension plans, so pure portfolio management costs and thus fees should be identical if price competition prevails in both market areas. A further refinement is to compare like investment styles in portfolios. As we noted earlier, expense ratios are generally higher for international, small-cap, and specialized funds as compared to large-cap income or growth funds.[109] Therefore, valid comparisons of fees must consider similar style funds, such as large-cap income funds, mid-cap growth funds, small-cap growth funds, and so forth. However, even if stock research, selection, and portfolio management costs could theoretically be accurately identified, the portfolio management requirements are sufficiently different – managing liquidity in one case and not the other – that price comparisons would be invalid.[110]

More recently, John P. Freeman and Stewart L. Brown surveyed the top 100 public pension plans in 1998 on the fees they paid external equity portfolio managers. They received usable responses from 36

plans, with the majority sending the fee schedule for different asset size funds.[111] The authors concluded that retail mutual fund advisory fees were twice as high on average as fees paid by public pension plans, 56 versus 28 basis points. They found similar differences when the public pension and mutual funds were divided into large-cap, mid-cap, and small-cap portfolios, although the difference was not as large in the case of small-cap stock portfolios, with an average fee of 71 basis points for mutual funds and 58 basis points for pension plans.[112] But Freeman and Brown did not compare pure portfolio management fees at retail mutual funds with pension plan external portfolio manager fees. They could not isolate pure portfolio management costs for mutual funds. Indeed, they could not distinguish between administrative and management costs in some cases, and within management costs they could not isolate the pure cost of equity research and portfolio management that constitutes the primary service (along with reporting, checking for compliance, and communicating and meeting with pension fund clients) investment advisors provide to pension funds.[113] Mutual funds report different costs in the same categories of expenses. Management fees sometimes include administrative and costs other than pure portfolio management.[114] Any decomposition of pure portfolio management costs would entail arbitrary cost allocations.

Freeman and Brown compared retail fees to public rather than private pension plans. Corporate private pension plans may contract for portfolio management at higher costs than public pension plans, and there is no reason to believe that price competition does not exist for managing assets of private pension plans.

In an attempt to correct the poor measures used in the Freeman and Brown study, Sean Collins compared a closer approximation of pure portfolio management fees for mutual funds to comparable fees for pension plans.[115] Some mutual funds, such as Vanguard, contract out to third parties (sub-advisors) to manage active funds, which entails security selection, trading, portfolio balancing, and reporting. Money managers can serve as advisors to their own fund complex, sub-advisors to other mutual funds, and external portfolio managers to pension plans. Fees vary by asset size of portfolios, whether the portfolio is an equity or fixed-income portfolio, and by equity portfolio styles.[116] Collins compared investment advisors' sub-advisory fees to fees paid to external investment advisors by pension plans, hypothesizing that sub-advisory fees were a closer approximation to actual charges for mutual fund portfolio management than reported management expenses. He found that sub-advisory fees for small- and medium-size portfolios were lower than the fees Freeman and Brown found were paid by public pension plans to external advisors. For large portfolios, public pension plan fees were lower than sub-advisory fees. Overall, fees paid by public pension plans averaged 28 basis points and sub-advisory fees averaged 31 basis points.[117] There was little difference in portfolio management fees, indicating, based on the

approach of Freeman and Brown, that price competition prevails for retail mutual fund investment advisors who engage in sub-advising other mutual funds.

Freeman and Brown also compiled sub-advisory fees for 10 actively managed Vanguard funds, with asset sizes ranging from $200 million to $23 billion.[118] They report average sub-advisor fees of approximately 13 basis points. By contrast, they found public pension plans paid average external advisory fees of 20 basis points for portfolios with assets of $1.55 billion and above.[119] They do not explain how Vanguard was able to obtain sub-advisory services at prices below what they contend is the competitive price for portfolio management – that is, the price paid by public pension plans.

To summarize, claims that public pension plans pay lower fees than retail investors for identical services are not supported by credible studies. A number of cost-related factors differ between public pension funds and retail customers, including liquidity requirements, number and size of accounts, and services provided to retail but not public pension plans. Data are not readily available to accurately isolate the pure costs of portfolio management, and even if they were, differences in liquidity requirements prevent a one-to-one comparison of portfolio management costs. But even if such costs differences do hypothetically exist, they do not prove a lack of price competition in retail mutual funds. Incremental pricing to public pension clients, for example, can easily explain price differences.

D. Investors are not Denied Fall-out Benefits, Consistent with a Competitive Market

Successful investment advisors earn profits from portfolio management through shareholder fees and complementary sources of revenues. Profits are also affected by cost reductions generated by the fund's existence and success, such as through economies of scale and scope. Additional potential contributors toward advisor profits, beyond shareholder fees, are known in various litigations against mutual funds as "fall-out benefits."[120] More succinctly, the so-called fall-out benefits are derivative or indirect profits to an investment advisor generated in some manner by the existence of the fund.[121]

In various lawsuits charging investment advisors with imposing excessive fees on fund shareholders, plaintiffs have argued that shareholder fees should be offset by fall-out benefits because the benefits accrue by virtue of the fund's existence and the shareholders own the fund.[122] Two kinds of benefits are alleged – additional sales revenues and lower costs. Among the sources of additional revenues and cost savings mentioned in various complaints are: interest income, additional business income, and lower costs of operation.

Fall-out benefits are viewed by those who claim mutual fund fees are excessive as "extra profits" accruing to investment advisors, beyond those generated by shareholder fees, which allegedly belong to the fund's shareholders. The additional profits are supposedly separate from profits earned from purely

managing the fund and providing all the services required by investors. Fall-out benefits are also characterized by plaintiffs in excessive fee cases as sources of profits that have been hidden from the funds' boards of directors when board members are considering the level of fees and negotiating fees with the investment advisor.

The claim of extra profits from fall-out benefits presumes that investment advisors earn at least a competitive rate of return, including a return on capital, based on shareholder fees alone. In other words, indirect profits from derivative activities are viewed by critics as pure surplus, not needed to cover the total costs (including the cost of capital) of portfolio management and administration. If this were not the case and various derivative sources of income contribute to covering total costs, the claim of foregone fall-out benefits has little meaning. Thus, if derivative revenues and profits contribute to recovering the total costs of investment management, then incumbent fund shareholders benefit directly from their existence.

The primary business of investment advisors is managing and expanding assets under management in mutual funds. Whatever the sources of the advisors' revenues – shareholder fees, brokerage commissions, additional business from new or existing customers, or reduced costs from new business – under competitive market conditions advisors can only price their services to shareholders at the competitive level. If fees are competitive for the level of services and fund performance provided, imposing fee offsets from alleged fall-out benefits will reduce fees below the competitive level. If the other business segments are earning competitive returns, this type of cross-subsidization will force losses on the advisor, increasing the risk of business failure. As such, contrary to shareholders' alleged wishes to gain fall-out benefit offsets through lower fees, the advisor will seek to return to competitive profitability by raising shareholder fees, although this would make it less competitive relative to rival funds. If another business segment is earning above a competitive rate of return, forcing shareholder fees below the competitive level through cross-subsidization can in theory subsidize shareholder fees.

But how can a business segment earn above a competitive return? Under competitive market conditions, if the advisor earns more than a competitive rate of return it is due to cost superiority and/or increasing demand for the advisor's products and services. Profits are a consequence of the advisor's superiority. If such profits are extracted by shareholders in the form of fall-out benefit offsets, the advisor's incentive for superiority in demand or costs is greatly reduced. By removing the incentive to become more efficient, shareholders are harmed.

Are shareholders denied fall-out benefits? Claimed fall-out benefits result in part from the multi-product, multi-service, one-stop offerings by large fund complexes. That is, a fund's investors can add more funds, purchase non-fund services, and use the advisor/broker for other transactions. By purchasing

multiple products and services, shareholders contribute to growth, leading to economies of scale and scope and reductions in fees. In this sense fall-out benefits accrue to shareholders.[123]

A fund contracts with its investment advisor for portfolio management and other services. How it compensates the investment advisor for the advisor's costs and profit is embodied in the contract. For the fund to gain and maintain shareholders, its investment advisor must offer services and performance at a competitive price. If shareholders and directors believe there are fall-out benefits from the success of the fund, such benefits are subject to contract negotiations. For example, if float interest and free credit balances are an issue, funds' boards can negotiate to minimize such transaction costs.

To summarize, if funds were somehow earning fall-out benefits, which did not accrue to shareholders, rivals could easily offer better terms to shareholders, capturing market share at the expense of firms earning the alleged fall-out benefits. In a competitive market, such as that for mutual funds, the notion of fall-out benefits somehow denied investors lacks economic credibility.

V. The Governance Structure of Mutual Funds Does Not Forestall the Ability to Capture the Benefits of Competition

All firms engage in some form of do-it-yourself activities, meaning that they are vertically integrated. However, at the boundaries of firms' operation they can choose between generating goods and services internally or acquiring them through external markets, depending on which alternative is more cost efficient. Over time, with competition between different organizational forms in an industry, if one is more efficient it will become the predominant form. Alternatively, if no one form is always the most efficient, a mix of forms will continue to compete. Mutual funds can vertically integrate and supply research and portfolio management internally, as well as other services such as accounting and administration, or they can contract out for some or all services.

The 1960s view blames the organizational structure of mutual funds – that is, contracting out for portfolio management services – as the basis for excessive fees and self-dealing behavior by investment advisors. Critics reason that if funds were internally managed, where investment advisors could be easily monitored and replaced, management and shareholders' interests would be coincident, maximizing the returns to the mutual fund, and excessive fees would disappear. Investment advisors would presumably no longer be able to dictate fee terms to funds.

In a vertically integrated operation with multiple business segments under common ownership, internal transfer prices between business segments should be at competitive levels. Anything other than competitive transfer prices, charging above or below the competitive level, will misallocate the firm's

resources and reduce the efficiency of its operations. In mutual funds, the internal transfer price for research, portfolio management, and other services to fund shareholders would be at the competitive level, and investors would not be charged an allegedly excessive price.

If vertically integrated funds, with internal management of portfolios and investor services were more price-competitive and efficient than external management, as some concluded based on 1960s analysis,[124] investors and funds would switch to internal management. Alternatively, if external management were more efficient and cost competitive, investors and funds would switch to external management and it would predominate.

In the early years of mutual fund development in the United States, internally managed funds were not uncommon. One of the earliest open-end funds, Massachusetts Investors Trust started in 1924, was internally managed. The firm followed with a second internally managed fund in 1934, Massachusetts Investors Growth Stock Fund.[125] These two funds thrived as internally managed well into the 1960s, with their combined assets of $3 billion ranking as the second largest U.S. fund complex in June 1966, behind Investors Diversified Services at $5.2 billion and ahead of Fidelity Management and Research at $2.7 billion.[126] The seventh largest fund complex in that year, at $1.4 billion in assets, was a combination of four internally managed funds by Union Service Company, which was owned by the four funds. However, there were only 11 internally managed U.S. funds (six open-end and five closed-end) in the mid-1960s with assets of $100 million or more versus 57 externally managed funds with $100 million or more in assets.[127] In 1970, the Massachusetts Investors Trust converted to external management.[128] Other internally managed funds from the 1960s also converted to external management. By the early 1970s, internally managed funds had largely vanished. After decades of competition between internal and external management of mutual funds, external management proved to be more efficient for investors.

These results are contrary to claims that internally managed funds are necessarily more cost-efficient and charge lower advisory fees to shareholders. If this were so, internally managed firms would have won the competitive battle. Investors would have shifted to internally managed funds to gain the lower costs and higher returns. Instead, by the 1960s, a small percentage of funds were internally managed and they subsequently reorganized as externally managed funds. Internal management proved less cost-efficient than external management and largely disappeared from the fund industry by the early 1970s.

Current critics, however, point to the Vanguard Group, started in 1974, when extolling the superiority of internal management and its ability to prevent excessive fees.[129] Vanguard states that it provides services to shareholders, including investment advisory, corporate management, administration, and marketing and distribution, at cost, with no amount added on for profits to Vanguard.[130] Vanguard

contrasts its no-profit-on-fees policy with rival funds that it characterizes as earning profits on shareholder fees. The Vanguard Group explains its low fee structure on, for example, the Vanguard 500 Index fund, as due to its policy of not earning profits on the fees it charges shareholders.

Vanguard's description of its fee policies implies that as an internally managed mutual company – that is, in which the fund shareholders indirectly own the Vanguard advisory company – it does not have to earn a profit on the fees it charges the shareholders. It provides services at cost to its shareholders, whereas external portfolio managers, as for-profit companies, set fees to include a profit.

However, this description and assessment of Vanguard is incomplete. Vanguard competes in competitive capital and labor markets, and, to be competitive it must pay competitive prices for capital and labor, and to pay competitive prices it must earn at least its cost of capital. As a privately held company, Vanguard Corporation's profits and rate of return are not publicly disclosed. However, Vanguard must earn a profit on its invested capital to remain in business and that profit must come from the funds' shareholders. Vanguard can generate profits for its services from fees charged to shareholders or by taking directly a share of the funds' net asset value. In both cases, returns to shareholders are diminished as Vanguard is compensated as the manager. Vanguard takes a share of its funds' net asset value as a "Contribution to Capital," which contributes to profits and a return on capital.[131] Assuming that Vanguard charges shareholders for its services at cost, with no profit margin imbedded in its costs for services, it nevertheless earns some profit by taking a portion of the shareholders' net asset value, reducing the return to shareholders. Either way, Vanguard must earn a profit from its funds' shareholders. Its mutual organizational form status does not shield it from having to earn a profit on invested capital to remain competitive and supply competitive products.

By keeping costs low and competing on fees against rivals, Vanguard has stimulated price competition and become one of the largest fund complexes in the U.S.[132] Vanguard differentiates its product by offering low prices to investors who prefer to buy independent of a broker or financial advisor. Low-price strategies are commonplace, such as Wal-Mart, Costco, and Southwest Airlines. With growth come increases in net assets, a portion of which Vanguard takes for managing shareholders' monies.

The view that Vanguard is a wholly internally managed fund complex is also misleading. Vanguard offers approximately 100 funds, with a substantial portion of the complex's assets in index funds. Managing index funds does not require the research and portfolio management expenditures of an actively managed fund. Vanguard manages its index funds internally but contracts with external managers for research and portfolio management for most of its actively managed funds.[133] In that regard, its compensation to external managers includes a profit for their services, paid for by Vanguard investors. While Vanguard may continue to provide administrative and marketing services internally to

the shareholders of its actively managed funds, the fees that shareholders pay investment advisors for active fund research and portfolio management include a profit for the external investment advisor. The view that Vanguard does not charge a fee which includes profits to advisors on all its funds is misplaced.

After decades of head-to-head competition between internal and external organization forms for actively managed mutual funds, external management became preeminent as the most efficient organizational form. The Vanguard example simply shows that price competition by firms that strive to be low-cost flourishes in the mutual fund industry.[134] By keeping costs and prices low, Vanguard has grown to become one of the largest fund complexes in the U.S. The example that fee critics like to point to, Vanguard, provides evidence contrary to their claim that price competition is absent in the mutual fund industry.[135]

VI. The Competitive Market for Mutual Funds Suggests Caution for Regulatory or Judicial Intervention on Fee Setting

The foregoing economic analysis points to two principles that limit the domain over which policy regarding mutual fund fees may range, both clearly established as a matter of law: Advisory fees are not set by the government, nor are funds required to put advisory contracts up for bid. After briefly discussing these principles, we discuss the one provision of existing law that directly addresses advisor fees – ICA Section 36(b) – and the lead cases interpreting that section. Here, we apply the results of our earlier analysis: Competition among funds for shareholders is strong; price competition does not require that advisory contracts themselves be the direct subject of competition, only competition for investors; and small differences in the total return to fund shareholders – including the effects of advisory fees – can have a substantial impact on investors' decisions and advisors' policies.

Based on the facts from our economic analysis, we argue that the lead case interpreting ICA Section 36(b) – *Gartenberg* – was correct in its overall holding, but that specific statements in the Second Circuit opinions in that case adopting the 1960s view of competition in the fund industry are unfounded from an economic perspective. Given the impact of the many changes in the fund industry since *Gartenberg* was decided, we argue that even if a court otherwise felt compelled to adopt the reasoning as well as the holding of *Gartenberg*, subsequent changes in industry conditions and regulation provide an alternative basis to revisit *Gartenberg's* adoption of the 1960s view of price competition in the fund industry. We then suggest modest modifications to the *Gartenberg* approach that will allow an appropriate consideration of price competition in cases brought under Section 36(b).

A. Economic Analysis Suggests Limiting Principles for Law and Regulation

Two limiting principles are important from an economic and legal perspective. First, the law does not provide for mutual fund advisory fees to be set by the government, or any agency of the government. Second, the law does not require that funds or fund directors conduct bidding competition among third parties for advisory contracts or otherwise run the equivalent of an auction. Both of these legal principles have been twice clearly established by Congress – once in 1940 when the ICA was first adopted, and again in 1970 when the ICA was amended to add Section 36(b) to address fees specifically. The reason for stating and supporting these limiting principles at the outset of our legal and policy analysis is that some of the judicial or regulatory remedies proposed by proponents of the 1960s view that price competition is absent in the fund industry would violate these principles in practice.[136]

Government-determined prices should be avoided. Only in a few select industries in the past have market failures been perceived to be so substantial that government has stepped in to determine prices directly, or to set price ranges for private actors.[137] Currently, only in the utility industries is direct price setting typical, and even there rate regulation and deregulation have been the subject of serious debate. Congress specifically considered and rejected such regulation for the fund industry on two occasions.[138] The Senate Report accompanying what became the 1970 Amendment to the ICA stated in clear terms, "It is not intended to introduce general concepts of rate regulation as applied to public utilities."[139]

Mandatory bidding for investment advisory contracts is not necessary to ensure competitive pricing. A second principle for regulation of funds relates to the structure of fund complexes and the means by which funds choose advisors. Funds have long been managed either externally (as at the great majority of funds) or internally (as at Vanguard, discussed above). In neither structure, however, have mutual funds generally put the advisory function out for bid, with the possible exception of using sub-advisors. As frequently noted by both critics and defenders of the fund industry, funds are generally organized by fund advisory companies, who then enter into advisory contracts with the funds. As we noted above, funds rarely "fire" their advisors once created, and this fact has misled some observers, including courts, to the view that price competition has no effect on fund fees.

Among the reasons for not firing advisors and conducting auctions are: First, fund investors often invest on the basis of an advisor's reputation, and rarely invest on the expectation that fund directors will take an active role in managing the portfolio or shopping around for advisors; second, fund investors often prefer to invest in a complex of funds with different investment styles and investment objectives that are nevertheless advised by commonly controlled advisors; third, advisor-organizers of funds need to earn a competitive return on their invested capital, which would be jeopardized if funds frequently

changed advisors; fourth, it is difficult to evaluate the quality of advisors over short periods of time; fifth, because of the key feature of redeemable shares, funds seek to maintain liquidity and attract new investors on a continual basis, and the operations of advisors and fund share distributors are frequently highly connected; and sixth, perhaps most important, redeemable shares allow fund shareholders to rapidly and cheaply "fire" advisors by switching investments from one fund to another, and this pressure makes it largely unnecessary for competition between funds to exist in the selection of advisors. [Are there supporting citations for some of these points, such as numbers 1 and 2.]

Any effort to mandate bidding for advisory contracts would be a radical change for the fund industry, would represent a sharp break from the more than three-quarters of a century of successful fund growth, and would require significant statutory changes by Congress to the time-tested success of regulation under the ICA. Common sense suggests that for an entire industry with a track record of success, any such radical change should occur only after demonstrating that the change was both feasible and desirable. Thus, we assume that laws and regulations governing fees will continue to be adopted or interpreted in the context of current fund practices regarding advisors. Advisors, we assume, will not begin competing to manage funds; instead, they will continue to compete for investors in the funds they advise.

B. These Limiting Principles Shape Section 36(b) of the Investment Company Act

With those limiting principles in mind, we turn to the primary existing law on advisory fees – Section 36(b) of the ICA. Section 36(b) provides:

> The investment adviser … shall be deemed to have a fiduciary duty with respect to the receipt of compensation for services, or of payments of a material nature, paid by such registered investment company, or by the security holders thereof, to such investment company or any affiliated person of such investment adviser.

The plain language of Section 36(b) is consistent with both limiting principles: Nothing in it suggests that fees should be subject to government regulation, whether set in advance by the SEC or evaluated after the fact by a court; and by imposing a fiduciary duty on fund advisors, the section embraces industry practices in which advisors maintain close and ongoing relationships with the funds they advise.

Understanding the content of Section 36(b) requires context. To understand what Section 36(b) was intended to do when it was adopted in 1970, an understanding of pre-existing law is essential. First, then as now, fund directors owe fiduciary duties of care and loyalty to the funds they oversee, and those duties are enforceable in court at the initiation of a fund shareholder. However, the standard by which directors' acts are measured under most state laws depends crucially on the nature of the acts, the process

by which those acts were approved, and the identity and characteristics of those who approved those acts. If directors approve a transaction in which they have no special financial interest, and do so after deliberating for a reasonable amount of time and with a reasonable amount of information, courts generally apply the "business judgment rule," which establishes a generally irrebuttable presumption that the transaction was not improper. Similarly, if disinterested shareholders approve a transaction after disclosure of material facts, courts will rarely if ever intervene. For conventional corporations, these presumptions make enormous sense. Judges are not generally experienced or capable businesspeople, and neither they nor self-appointed, aggrieved shareholder representatives can be reasonably expected to make better business judgments than disinterested, informed, and reasonably careful directors, who typically are experienced businesspeople, and who have in any event been elected by shareholders to oversee their corporation. If shareholders as a class receive sufficient information about a given transaction, and affirmatively approve or ratify the transaction, it is unlikely that the law would advance shareholder interests generally by allowing a subset of shareholders to overturn that decision in court.

Based on this law, when pre-1970 courts – predominantly Delaware courts – were asked to uphold challenges to fund advisory fees that were required by the ICA to be, and had been, approved by disinterested fund directors and/or shareholders, those courts declined to do so. Absent clear evidence of "waste" – a fee so excessive that it could not be justified as rational – the courts said they would not intervene. This seemingly straightforward application of traditional common law principles to the fund industry proved controversial. Critics – eventually including the SEC in the 1966 report to Congress we discussed earlier – argued that shareholder approval, in particular, was not likely to produce pressure on advisors to reduce fees because shareholder rejection of an advisory contract "might leave the fund without an effective advisory contract [and] possibly … harm … the fund's operations," and because shareholders themselves – dispersed, unorganized, and prevented by law from usurping the management role of fund directors – "cannot select a new advisor, formulate a new advisory contract or set a new advisory fee."[140] Thus, the combination of a mandate under the ICA for shareholder approval of advisory contracts, a practical and legal bar against shareholders attempting to negotiate with advisors or select new advisors, and a state law doctrine that effectively barred suits attacking transactions that had been approved by shareholders was said to have resulted in the effective elimination of *any* fiduciary duty constraint on advisor fees.[141] Section 36(b) was adopted largely in response to these concerns.

A second important part of the historical background to Section 36(b) is that the final language of the provision replaced language that had been previously proposed by the SEC and rejected by Congress. Bills introduced in Congress in both 1967 and 1968 would have imposed a "reasonableness" standard on advisory fees, but neither was enacted.[142] Instead, the language quoted above was adopted, providing that

advisors are subject to "a fiduciary duty" in respect of their compensation. The clear implication is that Congress considered but rejected the idea of allowing suits to attack fees as "unreasonable."[143]

What, then, was Section 36(b) meant to accomplish? Again, the plain language of the statute is relatively clear in any action under Section 36(b):

> approval by the board of directors of [the fund of the] compensation or payments, or of contracts or other arrangements providing for such compensation or payments, and ratification or approval of such compensation or payments, or of contracts or other arrangements providing for such compensation or payments, by the shareholders of such [fund] *shall be given such consideration by the court as is deemed appropriate under all circumstances*.[144] [emphasis added]

The effect of this language is to modify the pre-1970 common law of fiduciary duties described above to eliminate the *automatic* shift upward in the standard to be applied by a court to that of "waste" when reviewing advisory fees. Thus, the standard to be applied is neither "reasonableness," which would shift too much discretion from fund directors to courts, nor is it *always* to be "waste," which would make fee challenges too difficult even where an analysis of the facts and circumstances suggests that approval by disinterested directors and shareholders added no meaningful constraint to the size or structure of the fee. Nowhere did Congress specifically identify the standard that *should* apply in fee challenges where board or shareholder approval was viewed as meaningless by a court.

What, then, would the baseline legal standard be in fee cases? Absent a clear statutory amendment, courts traditionally fall back on the common law, and absent the presumption of the business judgment rule, that standard would ordinarily be a "fairness" standard. Although "fairness" may be no less subjective than "reasonableness," the concept as applied by courts has one important difference: A "fairness" standard requires a price to fall within a *range* of values, rather than to match the adjudicator's specific notion of a reasonable price. In other words, a fairness standard imposes an upper bound on fees. That upper bound could be moved even higher – potentially even as high as the pre-1970 standard of "waste" – if a court were to find, in the particular instance, that the effect of disinterested director or shareholder approval were meaningful.

Section 36(b) made two other important changes to fiduciary duty law. First, it clarified that the advisors themselves could be sued directly as fiduciaries, without any showing that they had dominated a fund's board or taken on a fiduciary role voluntarily, as would have been required under pre-1970 law. Second, under pre-1970 law, not only was the baseline standard one of fairness, but the burden of proof was imposed on the fiduciary, rather than on the plaintiff (on whom it would typically fall), but if disinterested directors or shareholders approved the transaction, not only would the standard be raised to waste but the burden would also shift back to the plaintiffs. In cases of uncertainty – which fee cases

almost always are – the burden of proof can be particularly important. Thus, even where a court decides under Section 36(b) that approval of directors or shareholders is meaningless, on the facts, the plaintiffs will continue to have to overcome difficulties of proving that the fee is so high as to fall outside the range of fairness.

To conclude, the intent of Section 36(b) was to increase the pressure of shareholder lawsuits on advisory fees by eliminating any automatic application of the very high "waste" standard that had previously applied, and by making it clear that advisors were subject to the same duties as other fund fiduciaries in respect of their compensation. Congress, however, balanced this increase in pressure by mandating that plaintiffs bear the burden of proof in all Section 36(b) cases, and by rejecting the idea that courts could simply substitute their judgment for fund directors as to what fees a fund should pay. Congress not only preserved a role for disinterested directors and shareholders to approve fees, but directed courts to consider the particular facts and circumstances surrounding such approvals in their consideration of fee challenges.

The economic effect of Section 36(b) is to advance competition. The net effect of these changes was to impose a real but uncertain upper bound on the fair range of fees that an advisor could charge to a fund. By setting an (uncertain) upper bound, Congress accomplished three plausible goals. First, Section 36(b) effectively prevents fund advisors from engaging in egregious extractions of fund value through advisory contracts. The ordinary constraints of disclosure requirements and redeemable shares would prevent advisors from extracting rents more than once, of course; but it remains possible (absent fiduciary duty constraints of Section 36(b)) that an advisor might engage in a one-time, massive payment to itself. Even that kind of one-time event would be constrained by reputation concerns and the requirement that the fee be disclosed and approved by fund directors and shareholders. However, if a person controlling an advisor were to plan to exit the fund business entirely, if the fund directors were dominated by the advisor, and if the SEC's concerns about shareholder approval in fact were serious in the circumstances, at least some risk of excess compensation would remain. Section 36(b) helps eliminate that risk.

A second, related goal is that by diminishing the ability of advisors to extract unexpected, one-time egregious payments, Section 36(b) helps preserve the mechanism of competitive feedback on advisors by ensuring that the functional relationship between fund returns and advisor fees that has obtained in the past for a given fund will continue to hold in the future. Without the threat of a Section 36(b) suit, an advisor could subsidize returns by underpaying itself in the form of below-market fees, and then more than reverse those subsidies in a one-time extraction of benefits. By capping the amount of compensation an advisor can extract from a fund, Section 36(b) eliminates the possibility of such inter-temporal game-playing by advisors.

Third, Section 36(b) helps promote competition among fund advisors. Although (as we show above) competition for fund investors already disciplines fund advisors, any attempt to raise fees above the competitive level is mitigated by Section 36(b). By permitting shareholder plaintiffs to gather compelling evidence that such non-competitive pricing is occurring, Section 36(b) serves a quasi-antitrust role by preserving the incentives of advisors to price competitively and avoid lawsuits.

C. Economic Analysis and Limiting Principles Suggest the Relevance of a Competitive Market in the *Gartenberg* Framework

The lead cases interpreting Section 36(b) are a pair of related Second Circuit decisions from the 1980s in *Gartenberg v. Merrill Lynch Asset Management, Inc.*[145] In those decisions, the appellate court discussed a wide range of issues under Section 36(b). The most important holding in the case was to affirm the lower court's dismissal of the fee challenge and in so doing specify more clearly the standard to be used by trial courts in evaluating fees under the ICA. To violate Section 36(b), the court wrote:

> the Adviser-manager must charge a fee that is so disproportionately large that it bears no reasonable relationship to the services rendered and could not have been the product of arm's-length bargaining.[146]

This interpretation of Section 36(b) comports with the economic analysis and limiting principles discussed above, and represents a careful synthesis of the limited guidance provided in the legislative history of Section 36(b) and pre-existing common law on fiduciary duties. It implicitly builds in the concept that fees can fall into a range of acceptable prices by focusing not on whether a given fee is a "reasonable" price in the subjective evaluation of a judge but whether it is beyond an upper bound. It also properly accords a role to the marketplace and competition by directing courts to compare fees to prices set by arm's-length bargaining, which in competitive markets will be similar for similar services. The standard does not condone courts simply substituting their own judgment for that of fund directors, and instead directs courts to look for fees of an extreme nature – "so disproportionately large…" – that could allow an advisor to use its position to extract a one-time egregious benefit without regard to the feedback normally provided by the competitive market.

A second set of issues in *Gartenberg* relate to the information trial courts should consider in evaluating fees under Section 36(b). Here, the central holding is clear: "To make this determination all pertinent facts must be weighed." This conclusion fits with the traditional common law role played by courts sitting in equity, to do "justice" by considering all relevant facts and circumstances, and not simply to follow bright-line rules or focus on a narrow set of facts. Three particular sets of facts should thus remain a part of Section 36(b) cases: (a) evidence of competition for investors by funds similar to the type of fund at issue in a given case; (b) evidence of how much of a constraint such competition imposes

on the setting of fees by the advisor and the fund's directors, and whether the setting of fees as so constrained by competition is likely to be similar to arm's-length bargaining; and (c) evidence about the role and effectiveness of approval of fees by disinterested directors and/or shareholders. None of these facts are ruled out by the holdings in *Gartenberg*; to the contrary, they are either explicitly or implicitly ruled *in*.

It is true that the *Gartenberg* appellate decisions evince skepticism about the importance of competition in the fund industry for evaluations of fees. The court criticized the trial court for suggesting that the fees charged to other funds be the "principal factor" to be considered, that comparable fees necessarily establish the "free and open market level for fiduciary compensation," and that fees are *per se* fair if they are in line with comparable fees.[147] This criticism has subsequently led some trial courts to exclude expert testimony and other evidence of the competitiveness of the fund industry, of its effect on fees, and of comparable fees.[148] This interpretation seems to be a misreading of *Gartenberg*, however, which – even after expressing its general views about the relevance of competition for investors to fees (discussed more below) – was clear in reaffirming its general holding that courts should be open to considering all relevant facts: "We do not suggest that rates charged by other adviser-managers to other similar funds are not a factor to be taken into account."[149] Likewise, even in its skeptical comments about the effect of competition, it used language that did not foreclose consideration of evidence of such competition: "the existence … of an unseverable relationship between the adviser-manager and the fund … *tends to weaken the weight* to be given to rates charged by advisers of other similar funds" (emphasis added).[150] Evidence cannot be given a low "weight" unless it is considered, and a "tendency" to give evidence a low weight does not mandate a low weight in every case. *Gartenberg*, thus, when carefully read, provides courts with ample room to consider evidence regarding competition in the market for fund investors, and of the constraints that competition imposes on advisors when they propose fees.

Just as evidence of competition and its effect on fees remains admissible after *Gartenberg*, so too does evidence of the role of disinterested directors and shareholders. In *Gartenberg* and most subsequent opinions, the courts appropriately spend a substantial amount of time evaluating the credibility, credentials, and reasonableness of fund directors in their evaluation of fees, as directed in Section 36(b). In this respect, case law under Section 36(b) departs significantly from the extreme skepticism about disinterested directors suggested in the SEC's 1966 report and by more contemporary critics, and is more consistent with a complete analysis of the bargaining power of disinterested directors.

Insisting on high fees at the risk of being fired is also not in the advisor's interest. Not only would the advisor lose the fees from managing that fund (including a competitive rate of return on its invested capital), but the advisor would almost certainly face substantial reputational costs from being fired, which

would likely lead to lost revenues in other business lines. Such a firing would be readily observable and would tell the market that the fund directors believed the advisor had been trying to take advantage of its customers. Both lost fees and reputational harm would be even larger if, as is now common, the advisor served a multi-fund complex, because the firing would likely lead to increased redemptions by shareholders of other funds. And if the same fund directors were directors for other funds advised by the same advisor, the advisor might lose its entire advisory business. Thus, contrary to the skeptical view, which sees risks from bargaining breakdowns only on the fund side, both fund directors and advisors have strong incentives to reach agreement on fees.

In essence, rather than advisors having complete control over fee levels, unconstrained by a market, in fact, the bargaining is constrained by the competitive market for fund investors. In such a situation, real bargaining *can* take place if fund directors are capable and motivated to do so. Thus, where a court is convinced, based on the evidence in the case, that fund directors are disinterested, reputable, and capable business people, were reasonably informed, and engaged in bargaining, such a court may and should under *Gartenberg* give those findings substantial weight in evaluating the fees that are the product of that bargaining.

Putting these arguments together, *Gartenberg*'s three principal holdings are sensible from legal and economic perspectives: (1) affirming the trial court's rejection of the fee challenge in large part on the ground that the plaintiffs had not met their burden of proving unfairness; (2) stating the affirmative standard to be used by courts in evaluating fee challenges as one envisioning that fees can fall within a range of fair values; and (3) making clear that trial courts can and should consider all relevant facts, including evidence of price competition and its relevance, and evidence concerning active bargaining by fund directors.

Although the holdings in *Gartenberg* just reviewed are sensible, the Second Circuit did in the course of its opinions include statements about the mutual fund industry and the best methods for analyzing fee cases that are both unnecessary for its holdings (and thus are not binding in the same legal sense as those core holdings) and, as a factual economic matter, unconvincing, especially as applied to the current, competitive fund market. First, the court seemed to adopt the 1960s view that competition for fund investors is irrelevant to the setting of advisory fees. In the words of the court:

> Competition between money market funds for shareholder business does not support an inference that competition must therefore also exist between adviser-managers for fund business. The former may be vigorous even though the latter is virtually non-existent. Each is governed by different forces. … [T]he existence in most cases of an unseverable relationship between the adviser-manager and the fund it services tends to weaken the weight to be given to rates charged by advisers of other similar funds. … A fund cannot

> easily move from one adviser-manager to another. Therefore, 'investment advisers seldom, if ever, compete with each other for advisory contracts with mutual funds.'[151]

Second, the court supported these general claims with the following more specific claim:

> One reason why fund competition for shareholder business does not lead to competition between adviser-managers for fund business is the relative insignificance of the adviser's fee to each shareholder. The fund customer's share of the advisory fee is usually too small a factor to lead him to invest in one fund rather than in another or to monitor adviser-manager's fees. 'Cost reductions in the form of lower advisory fees … do not figure significantly in the battle for investor favor.'[152]

Third, the court quotes a Congressional report to the effect that:

> Negotiations between [fund] directors and fund advisers over advisory fees would lack an essential element of arm's-length bargaining – the freedom to terminate the negotiations and to bargain with other parties for the same services.[153]

These conclusions largely track (and indeed quote) the 1966 SEC Report and legislative history behind the 1970 Amendments to the ICA. These assertions, however, are belied by the economic evidence and are contrary to other parts of the legislative history behind the 1970 Amendments to the ICA; because they were not necessary to the holdings in *Gartenberg*, they are in any event not binding on other courts as a matter of law; and even if they were true in the 1960s or the 1980s, they are no longer true today.

As we have shown above, price competition among funds for investors is robust. Advisor fees are based on fund assets, which in turn depend on competition among funds for investors. Any attempt by an advisor to use either excess fees or fund assets to subsidize the marketing of shares (and increase assets and fees) at the expense of performance is self-limiting and can only work over the short term. As a result of the relationship between fees and returns, competition among funds for investors necessarily affects advisors when they propose their fees, and affects the bargaining process between advisors and fund directors. Both advisors and fund directors are constrained by the effects of competition for fund investors.

This outcome holds if there is no "market for advisors" in any direct sense – that is, even if funds rarely fire advisors or put their advisory contracts out for bid. The lack of existence of a market for advisors separate and apart from the market for funds only indicates what has already been stated above – that both advisors and funds are generally well served by maintaining long-term relationships with one another, and thus rarely putting advisory contracts out for bid. While the law formally requires a separation of legal personality and governance between the advisor and the fund, the two organizations are, for practical and economic purposes, vertically integrated. That integration does not mean, however, that competition does not affect the advisor and the fund directors in setting advisory fee levels. In

markets for non-financial goods and services, such as cars, price competition at the retail level prevents a parts manufacturer that is vertically integrated with the overall wholesaler, such as General Motors, from indiscriminately raising the prices it charges for parts. The profits of the upstream producer (advisors, car parts manufacturers) both affect and are affected by the profits of the downstream producer (funds, car wholesalers), and that is true regardless of how many of the upstream and downstream producers are vertically integrated, as long as there are enough producers at the retail level (among funds or car wholesalers) to produce competition at that level. Put differently, imagine that a car parts manufacturer raised its prices higher and higher. The wholesaler would be forced to try to raise its prices; but if it is facing competition from other wholesalers, it would be unable to raise prices without losing market share, and eventually going out of business. The car parts manufacturer knows this, and is thus constrained by competition among wholesalers from raising its prices.

A critic might respond to the foregoing by granting that competition among fund investors imposes *some* constraints on advisors, but then claiming that the constraints are very loose, and then quote the portion of *Gartenberg* quoted above, to the effect that because fees are "small," relative to overall returns, they (or the impact they have on returns) are ignored by fund investors. But this weaker claim, too, is simply inconsistent with the economic facts. Throughout the economy, it is clear that marginal changes in prices can have significant effects on consumer choices, and in the fund context, the evidence demonstrates that general economic truth holds for advisory services. Marginal changes in fees can have material impact on advisors. In some sectors of the fund industry – money market and S&P 500 index funds, for example – investment portfolios are sufficiently similar that prices (that is, fees) are among the most important factors affecting returns that are within the control of the advisor, and thus among the most important bases on which consumers can and do choose funds (as we described in section III.E above).

Even if one thought that the fund industry was relatively uncompetitive in the 1960s or the 1980s, or that competition in the industry somehow was disconnected from the way that advisors and funds negotiate fees, changes in the industry have rendered these beliefs implausible. Changes in both the structure and regulation of the fund industry have made it far more likely that competition is a powerful force constraining advisory fees today. Thus, even if *Gartenberg* had squarely held that competition among funds was *per se* inadmissible in fee cases (which it did not), and even if *Gartenberg's* statements about the weak connection between competition among funds and advisory fees were legally binding holdings (which they were not), changes in circumstances since *Gartenberg* was decided would strongly support a reinterpretation of Section 36(b) to not only permit but *require* consideration of evidence of competition among funds for investors.

Among the economic changes in the industry since the adoption of Section 36(b) and the *Gartenberg* decision are those we noted earlier, particularly the growth in the number of funds and complexes, the advent of 401(k) plans and associated distribution channels, the advent and success of low- fee complexes, such as Vanguard, and the introduction of index funds and exchange-traded funds.

Among the legal changes relevant to fees since *Gartenberg* has been the SEC's Plain English Initiative,[154] which improved the clarity of the fund disclosures generally, and the SEC's numerous revisions to mutual fund disclosures, which among other things require more specificity about advisory fees and expenses and fund boards' basis for approving advisory contracts in fund advertising and in SEC filings.[155] Also, the proportion of a fund's board that must be disinterested was increased by the SEC twice, in 2001 and 2005. For these reasons, any interpretation of Section 36(b) that would lead courts to exclude evidence of fund competition altogether as either nonexistent or irrelevant to advisory fees is outdated.

C. Economic and Legal Analysis Suggests Refinements to the *Gartenberg* Interpretation of Section 36(b)

Based on economic analysis, our recommendations for the law governing advisory fees are few, simple, and modest. Radical shifts in existing law, or for sweeping new laws and regulations, are unwise on the ground that the case has not been made that the existing framework for regulation of funds and advisory fees is intrinsically flawed. The combination of regulatory constraints (disclosure and protection against conflicts of interest) with the contractual innovation most distinctive to the mutual fund industry (redeemable shares) create the necessary and sufficient conditions for robust competition among funds for investors, and competition in turn imposes strong constraints on advisory fees without the need for counterproductive governmental price-setting via regulators or courts, and without the need for mandatory bids for advisory contracts, both of which (if required) would impose substantial costs on investors.

More subtly, we also reject calls for substantially tightening the standards for evaluating advisory fees under Section 36(b) in court, whether by legislation or evolution of the common law of fiduciary duties. The existing standard announced in *Gartenberg* strikes an appropriate balance between preventing the only plausible means by which advisors could negate the effects of the competitive market for fund investors, through one-time "grabs" of large amounts of fees, on the one hand, and avoiding the real costs and risks associated with frequent and intrusive litigation over fees on the other hand. Not only would routine fee litigation impose out-of-pocket legal costs and distract advisors and fund directors, but it would come very close to violating the first limiting principle we sketched above – no government setting of prices for advisory services – by effectively shifting discretion and final approval of fees from fund

directors to courts. And because fee litigation under Section 36(b) is representative shareholder litigation, with its attendant flaws, any substantial tightening of standards for evaluating fees would bring about government price-setting in what is likely its least efficient form.

Affirmatively, our economic and legal analysis suggests that courts should be open to evidence about price competition in a given sector of the mutual fund industry – both pro and con. Case law interpreting Section 36(b) and *Gartenberg* as preventing the consideration of such evidence is ungrounded in the language of the statute, its legislative history, or the holdings and language of *Gartenberg*. Such a bar would also blind the courts to a fact that will be directly relevant to evaluating advisory fees, contrary to the general common law of fiduciary duties, which directs courts to consider all relevant facts. The multiple factors first listed in *Gartenberg* and then elaborated in subsequent cases are starting points for courts to use in deciding whether a given fee meets the general Section 36(b) standard. But those lists should not be viewed as exclusive, or controlling, when other relevant evidence of competition exists.

Where evidence regarding competition among funds for investors exists, courts should also consider expert testimony or other evidence that supports the claim in the particular circumstances that such competition has worked to constrain the particular advisor in proposing its fees to the fund in question. Courts should not blindly accept the simple assertions in *Gartenberg*, which date back to the unsubstantiated claims of the Wharton Report and the 1966 SEC Report that price competition among funds is somehow made irrelevant to advisors in proposing fees because advisory contracts are not generally put up for bid. Again, where evidence can be presented that refutes or undermines those assertions – as we believe we have presented above – it should and as a legal matter can be considered by a court under Section 36(b). Nothing in statute, the legislative history, or the *Gartenberg* case itself compels a different conclusion.

Finally, where a linkage between competition among funds and the setting of advisory fees can be shown, courts should be willing to consider comparable fees paid by comparable funds for comparable services in evaluating the fees in a Section 36(b) case. Competition among funds is strong, and competition constrains advisors in proposing fees, so that the general breakdown in arm's-length bargaining that has been assumed by the 1960s view is unconvincing.

Appendix

Evaluating the Responsiveness of Mutual Fund Assets to Fees

We estimated the responsiveness of mutual fund assets to fees using the Simfund database from Strategic Insight, for the period February 1998 to January 2005. Strategic Insight constructs the Simfund database by integrating its own research on mutual fund data with information from Standard & Poor's, Morningstar, ICI, and SEC N-SAR filings. These data do not suffer from survivor bias – that is, all funds existing in a given month are included in the database.

In our econometric tests, we estimated a model of the following specification:

$$\ln\left(TNA_f\right) = \alpha + \beta \ln\left(Fees_f\right) + \Gamma X_f, \qquad \text{(A1)}$$

where the log of total assets in fund (complex) *f*, $\ln\left(TNA_f\right)$, is explained by the value of fees charged by the fund (complex) ($Fees_f$) and a set of control variables (X_f). The dependent variables can be viewed as either assets or asset shares, since to obtain shares a constant industry total asset amount would be used. The model is estimated at both the fund and complex level. Fees at the fund level are measured by the expense ratio and at the complex level by the net asset-weighted average expense ratio. The control variables in addition to fees include number of funds in a complex; fund (complex) age; dummy variables for investment capitalization (small-cap and mid-cap relative to large-cap); dummy variables for investment style (blend and value styles relative to growth); performance measured by the Morningstar ratings of 2, 3, 4, and 5 relative to 1; and a dummy variable for distribution channel (distribution dummy variables are weighted by net assets at the complex level, making them equivalent to percentages of the complex net asset value). To summarize, we estimate the effect of fees on a fund's (complex's) relative assets, conditional on proxies for fund performance, experience, investment capitalization, style categories, and distribution channel.

Mutual fund demand models typically use either flow of funds or market share to measure demand. We use assets, which is consistent with prior market share studies by Baumol et al. and Khorana and Servaes.[156] As noted earlier, flow of funds models are subject to a bias toward zero in the price elasticity and other explanatory variables.[157] Because the price or fee variable results are of greatest interest for our purposes, we use assets rather than flow of funds. In addition, most of the variation in fees is cross-sectional (over funds), not time-series (across months and years).

We estimate the model for December of each year in the data set rather than pooling across years because, as noted, there is little variation in assets from month to month and fees are announced annually, not monthly. We estimate the model using both ordinary least squares ("OLS") and two-stage least squares ("2SLS"). If fees are purely exogenous, then OLS is applicable. However, if fees are related to

fund or complex size and economies of scale, then OLS results on fees are biased and inconsistent, but efficient. In that case 2SLS corrects for the inconsistency in fee elasticity results.[158] Our 2SLS approach can be described as follows:

$$\ln\left(TNA_f\right) = \alpha + \beta \ln\left(Fees_f\right) + \Gamma X_f + \varepsilon_f \qquad \text{(A2)}$$

$$\ln\left(Fees_f\right) = \gamma + \lambda \ln\left(TNA_f\right) + \Lambda Z_f + e_f \qquad \text{(A3)}$$

where TNA is total net assets and Z is a vector of controls.

The instruments used (that is, variables included in vector Z and excluded from vector X) are :

At the fund-level:

- log of complex mean weighted price, excluding all classes of the fund of interest;
- log of turnover ratio.

No suitable instruments were available at the complex-level, so we report only OLS results for complexes.

We apply the model to actively managed funds over the period 1998 through 2004, excluding all international and specialty sector funds. The OLS and 2SLS regression results at the fund level are presented in Tables A1 and A2, respectively. The Hausman test indicates an endogeneity problem with fees in 2002 and 2004 at the 10 percent level, but not for 1998 through 2001 and 2003, so we present both OLS and 2SLS results.[159] The estimated sensitivity of price to asset shares are higher in the 2SLS results. As noted, at the complex level, we present only OLS results (Table 3A). However, given the lack of empirical support for substantial economies of scale and scope at the complex level, as noted above, OLS likely does not suffer from bias and inconsistency.

At the fund level, using 2SLS, asset share sensitivities relative to price vary between -2.3 and -2.8, and, using OLS, from -1.3 to -1.9. For example, say a fund has a 1 percent share, a fairly high share given all the funds in existence, and fees are raised 10 percent. The regression results indicate a decline in share from 1 percent to from approximately a 0.72 to 0.87 percent share, depending on whether the OLS or 2SLS results are used. At the complex level, share sensitivity to price varies across years from -1.5 to -2.2, but is generally in the -1.7 to -1.8 range, suggesting that for a complex with 1 percent of assets, a 10 percent increase in fees would produce a decline to approximately a 0.82 or 0.83 percent share. The results indicate that investors consider fees when selecting mutual fund investments, contrary

to claims of fee critics and the 1960s view. Funds and complexes with lower fees have greater net asset shares, holding other factors constant. Although estimated price coefficients vary across years and between funds and complexes, the results show that demand is consistently inversely sensitive to price, indicating that attempts at raising price will reduce asset shares and thus advisors' profitability, contrary to the 1960s view.

At the fund level, assets increase with number of funds and the age of funds. Assets also increase with higher Morningstar ratings, consistent with numerous studies finding that investors respond to fund returns and rankings. In 2003 and 2004 assets are related to net assets in small and mid-cap funds relative to large-cap, however, blend and value are significant relative to growth funds for 2004 only using 2SLS. At the complex level, assets are positively related to the number of funds in the complex and the weighted age of the funds in the complex. Assets do not appear to be related to investment categories. In addition, complex assets are generally inversely related to the bank and institutional channels relative to the omitted direct channel.

Table 1A: Fund Level Asset Equations (Estimated by OLS)

	1998	1999	2000	2001	2002	2003	2004
Intercept	-4.7237	-3.8399	-5.5917	-5.2293	-6.3182	-6.9751	-8.0694
	(0.6688)	(0.7738)	(0.6224)	(0.5420)	(0.4767)	(0.4519)	(0.4413)
Log of fund-class price	-1.4798	-1.2947	-1.6227	-1.6137	-1.6092	-1.7592	-1.9381
	(0.1564)	(0.1762)	(0.1441)	(0.1287)	(0.1130)	(0.1076)	(0.1042)
Log of number of funds	0.3601	0.2900	0.2607	0.2697	0.2672	0.2679	0.1256
	(0.0510)	(0.0510)	(0.0446)	(0.0382)	(0.0332)	(0.0308)	(0.0298)
Log of fund-class age	0.8502	0.9997	1.0588	1.2014	1.3275	1.3879	1.5386
	(0.0645)	(0.0663)	(0.0591)	(0.0617)	(0.0536)	(0.0538)	(0.0586)
Small	0.2586	0.4510	0.1014	-0.3656	0.1171	0.4020	0.3824
	(0.1424)	(0.1581)	(0.1145)	(0.0930)	(0.0774)	(0.0730)	(0.0798)
Mid	0.0227	0.0163	-0.2642	-0.3599	0.0606	0.2143	0.2254
	(0.1342)	(0.1322)	(0.1006)	(0.0906)	(0.0817)	(0.0784)	(0.0783)
Blend	-0.3046	-0.2835	-0.0160	-0.4799	0.0717	0.1460	0.2425
	(0.1131)	(0.1098)	(0.1002)	(0.0895)	(0.0742)	(0.0715)	(0.0761)
Value	-0.4370	-0.3582	0.0368	-0.7847	-0.0845	0.0495	0.3289
	(0.1197)	(0.1309)	(0.1159)	(0.0962)	(0.0814)	(0.0786)	(0.0769)
Has at least Mstar=2	0.8245	0.2688	0.1502	0.2100	0.1247	0.0070	0.0518
	(0.1905)	(0.2055)	(0.1708)	(0.1476)	(0.1336)	(0.1191)	(0.1171)
Has at least Mstar=3	0.4379	0.5795	0.6959	0.2963	0.2914	0.2595	0.4803
	(0.1312)	(0.1438)	(0.1213)	(0.1016)	(0.0872)	(0.0821)	(0.0849)
Has at least Mstar=4	0.4821	0.4806	0.6043	0.3612	0.3924	0.3725	0.4727
	(0.1287)	(0.1278)	(0.1073)	(0.0942)	(0.0828)	(0.0816)	(0.0824)
Has at least Mstar=5	0.5465	1.1555	0.6390	0.6959	0.5704	0.8756	0.7541
	(0.1821)	(0.1407)	(0.1254)	(0.1178)	(0.1173)	(0.1123)	(0.1239)
Bank channel	-0.7886	-0.6404	-0.6510	-0.7890	-0.7609	-0.8268	-1.0817
	(0.1460)	(0.1510)	(0.1353)	(0.1244)	(0.1149)	(0.1085)	(0.1221)
Institutional channel	-0.9959	-1.1783	-1.2943	-1.3759	-1.3621	-1.4313	-1.6531
	(0.1693)	(0.1745)	(0.1615)	(0.1360)	(0.1280)	(0.1230)	(0.1191)
Insurance channel	0.8141	1.3595	1.1632	0.8661	0.8890	0.9755	1.3399
	(0.4946)	(0.4851)	(0.3282)	(0.2454)	(0.2271)	(0.2277)	(0.1851)
Non-proprietary channel	-0.1402	-0.1228	-0.0902	-0.1982	-0.2407	-0.2478	-0.0810
	(0.1350)	(0.1441)	(0.1274)	(0.1154)	(0.1068)	(0.1047)	(0.1016)
Proprietary channel	-0.1473	-0.0684	-0.1545	-0.1457	-0.1518	-0.1015	0.0921
	(0.1822)	(0.1761)	(0.1652)	(0.1436)	(0.1359)	(0.1302)	(0.1252)
R-Square	0.4478	0.4297	0.4435	0.3895	0.3915	0.3927	0.3914
N	985	1121	1537	2052	2628	3009	3540

Table 2A: Fund Level Asset Equations (Estimated by 2SLS)

	1998	1999	2000	2001	2002	2003	2004
Intercept	-7.7292	-9.0141	-8.1160	-8.7092	-10.570	-10.376	-11.499
	(0.9874)	(1.3934)	(1.2438)	(0.9097)	(0.7781)	(0.8567)	(0.8125)
Log of fund-class price	-2.2618	-2.5906	-2.2545	-2.5023	-2.7156	-2.6416	-2.8282
	(0.2505)	(0.3342)	(0.3015)	(0.2272)	(0.2000)	(0.2179)	(0.2063)
Log of number of funds	0.3328	0.2552	0.2417	0.2411	0.2317	0.2385	0.0979
	(0.0513)	(0.0531)	(0.0449)	(0.0387)	(0.0342)	(0.0317)	(0.0310)
Log of fund-class age	0.7023	0.7749	0.9586	1.0528	1.1537	1.2495	1.3869
	(0.0728)	(0.0792)	(0.0700)	(0.0655)	(0.0587)	(0.0615)	(0.0657)
Small	0.3119	0.5798	0.1723	-0.2288	0.2436	0.4985	0.4857
	(0.1461)	(0.1744)	(0.1212)	(0.1000)	(0.0812)	(0.0748)	(0.0830)
Mid	0.0704	0.1296	-0.2123	-0.2754	0.1455	0.2704	0.2845
	(0.1355)	(0.1411)	(0.1042)	(0.0928)	(0.0834)	(0.0794)	(0.0796)
Blend	-0.3339	-0.3530	-0.0515	-0.5197	-0.0174	0.0727	0.1591
	(0.1168)	(0.1175)	(0.1035)	(0.0929)	(0.0781)	(0.0743)	(0.0791)
Value	-0.4690	-0.4313	0.0128	-0.8051	-0.1612	-0.0207	0.2467
	(0.1219)	(0.1357)	(0.1170)	(0.0972)	(0.0843)	(0.0808)	(0.0798)
Has at least Mstar=2	0.7313	0.1760	0.0969	0.1206	0.0287	-0.0266	0.0103
	(0.1925)	(0.2067)	(0.1707)	(0.1466)	(0.1339)	(0.1202)	(0.1185)
Has at least Mstar=3	0.4276	0.5539	0.6768	0.2888	0.2281	0.2118	0.4248
	(0.1326)	(0.1500)	(0.1219)	(0.1027)	(0.0897)	(0.0835)	(0.0870)
Has at least Mstar=4	0.4281	0.4320	0.5738	0.3429	0.3707	0.3393	0.4410
	(0.1330)	(0.1338)	(0.1101)	(0.0956)	(0.0850)	(0.0834)	(0.0838)
Has at least Mstar=5	0.4640	1.1324	0.6630	0.6811	0.5598	0.8670	0.7407
	(0.1915)	(0.1495)	(0.1261)	(0.1214)	(0.1199)	(0.1132)	(0.1236)
Bank channel	-0.7819	-0.6188	-0.6443	-0.7846	-0.7295	-0.8121	-1.0023
	(0.1496)	(0.1612)	(0.1376)	(0.1255)	(0.1159)	(0.1086)	(0.1240)
Institutional channel	-1.1927	-1.4994	-1.4546	-1.6412	-1.7117	-1.6855	-1.8517
	(0.1762)	(0.1896)	(0.1733)	(0.1495)	(0.1345)	(0.1314)	(0.1229)
Insurance channel	1.0758	1.8447	1.4451	1.3208	1.4952	1.4643	1.7890
	(0.5099)	(0.5313)	(0.3523)	(0.2838)	(0.2615)	(0.2657)	(0.2102)
Non-proprietary channel	0.0552	0.2823	0.1210	0.0751	0.1103	0.0502	0.2347
	(0.1474)	(0.1754)	(0.1610)	(0.1335)	(0.1207)	(0.1246)	(0.1215)
Proprietary channel	0.0519	0.3067	0.0254	0.0847	0.1894	0.2065	0.4183
	(0.1902)	(0.1957)	(0.1874)	(0.1591)	(0.1516)	(0.1513)	(0.1463)
R-Square	0.4303	0.3863	0.4349	0.3713	0.3649	0.3768	0.3780
N	985	1121	1537	2052	2628	3009	3540
Hausman test (p-value)	0.8687	0.6148	0.9994	0.6633	0.0094	0.1120	0.0817

Table 3A: Complex Level Asset Equations (Estimated by OLS)

	1998	1999	2000	2001	2002	2003	2004
Intercept	-6.6355	-3.7154	-5.1846	-5.1023	-5.4399	-5.2245	-5.4179
	(1.3469)	(2.0560)	(1.6431)	(1.3145)	(1.3833)	(1.7403)	(1.5833)
Log of weighted price	-2.2322	-1.4829	-1.7358	-1.8823	-1.7218	-1.7945	-1.7634
	(0.3107)	(0.4614)	(0.3610)	(0.2966)	(0.3294)	(0.4162)	(0.3719)
Log of number of funds	1.0968	1.0783	1.1446	1.1162	1.1240	1.1413	1.0963
	(0.0871)	(0.0961)	(0.0812)	(0.0673)	(0.0692)	(0.0618)	(0.0586)
Log of weighted age	0.6277	0.6157	0.7209	0.5312	0.6437	0.7143	0.6763
	(0.1239)	(0.2057)	(0.1565)	(0.1259)	(0.1327)	(0.1503)	(0.1445)
Small cap*	0.5476	0.9321	-0.0101	-0.5440	0.0290	-0.0682	-0.0906
	(0.4041)	(0.4479)	(0.3280)	(0.3413)	(0.2909)	(0.2730)	(0.2683)
Mid cap*	0.4690	0.5082	0.2336	-0.1717	0.4231	0.3134	0.6287
	(0.4889)	(0.5135)	(0.3961)	(0.3838)	(0.3410)	(0.3557)	(0.3528)
Blend*	-0.7973	-0.3651	-0.3826	-0.8776	-0.1820	-0.3846	-0.1387
	(0.3554)	(0.3366)	(0.3173)	(0.3162)	(0.2723)	(0.2531)	(0.2508)
Value*	-0.4347	0.4078	0.7527	-0.6236	-0.0448	-0.3620	-0.1188
	(0.3898)	(0.4651)	(0.4453)	(0.3439)	(0.3462)	(0.3282)	(0.3088)
Has at least Mstar=2*	-0.2997	-0.1672	-0.7636	0.5902	0.6975	-0.2320	-0.2589
	(0.6087)	(0.8023)	(0.5771)	(0.5538)	(0.4667)	(0.4446)	(0.4278)
Has at least Mstar=3*	0.4980	0.2451	1.1883	-0.0981	-0.2925	0.3651	1.1011
	(0.7186)	(0.6086)	(0.4840)	(0.4203)	(0.3680)	(0.3515)	(0.3675)
Has at least Mstar=4*	1.2595	0.9963	0.9399	0.7916	0.6809	0.7778	0.4823
	(0.3890)	(0.4834)	(0.4196)	(0.3269)	(0.3331)	(0.3181)	(0.3386)
Has at least Mstar=5*	0.0050	1.0116	0.5356	1.0766	0.9302	0.9766	0.7515
	(0.4228)	(0.4260)	(0.4113)	(0.4127)	(0.3757)	(0.3489)	(0.3546)
Bank channel*	-0.4510	-0.3272	-0.5040	-0.4708	-0.4540	-0.5964	-0.7549
	(0.2774)	(0.2733)	(0.2263)	(0.2304)	(0.2096)	(0.2006)	(0.2104)
Institutional channel*	-0.9841	-0.9831	-0.8730	-0.8645	-0.7330	-0.7918	-0.6129
	(0.2889)	(0.4457)	(0.3891)	(0.3548)	(0.3482)	(0.3173)	(0.3153)
Insurance channel*	0.8998	1.0919	-0.0539	-0.1191	-0.4398	-0.5250	-0.8569
	(0.3057)	(0.6341)	(0.7126)	(0.7853)	(0.7161)	(0.7642)	(0.7985)
Non-proprietary channel*	-0.2941	-0.1766	-0.4379	-0.2479	-0.3219	-0.3131	-0.4255
	(0.2693)	(0.3393)	(0.2960)	(0.2410)	(0.2384)	(0.2388)	(0.2285)
Proprietary channel*	0.4091	0.4043	-0.0802	0.4382	0.3094	0.1923	0.1122
	(0.3752)	(0.3893)	(0.5323)	(0.3814)	(0.4133)	(0.3974)	(0.3600)
R-Square	0.6882	0.6134	0.6857	0.6889	0.7019	0.7259	0.7190
N	151	164	183	207	225	237	246

* These variables are dummies weighted by the net asset value at the fund-class level. Therefore, the interpretation of the dummies is equivalent to percentages of the complex net asset value.

Endnotes

[1] Respectively, Professor of Law, Harvard Law School; and Dean and Russell L. Carson Professor of Finance and Economics, Graduate School of Business, Professor of Economics, Faculty of Arts and Sciences, Columbia University, and Research Associate, National Bureau of Economic Research.

[2] John C. Bogle, "Mutual Fund Industry Practices and their Effect on Individual Investors," Statement before the U.S. House of Representatives, Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the Committee on Financial Services, (Washington, D.C.: Mar. 12, 2003); U.S. General Accounting Office, *Mutual Funds: Information on Trends in Fees and Their Related Disclosure*, GAO-03-551T (Washington, D.C.: Mar. 12, 2003); U.S. General Accounting Office, *Mutual Funds: Greater Transparency Needed in Disclosures to Investors*, GAO-03-763 (Washington, D.C.: June 2003); U.S. General Accounting Office, *Mutual Fund Fees: Additional Disclosure Could Encourage Price Competition*, GAO/GGD-00-126 (Washington, D.C.: June 7, 2000); John P. Freeman and Stewart L. Brown, "Mutual Fund Advisory Fees: The Cost of Conflicts of Interest," *The Journal of Corporation Law*, 26 (Spring 2001), pp. 609-674; and Charles A. Trzinka, "Statement," Hearing before the Subcommittee on Finance and Hazardous Materials of the Committee on Commerce, House of Representatives, 105th Congress, second session (Sept. 29, 1998), pp. 50-58.

[3] Because claims of excessive fees stress the absence of price competition between mutual funds, this paper focuses on price competition. This focus does not imply that other forms of competition are less meaningful to investors. Mutual fund competition is multi-dimensional, embodying such factors as returns to investors and fund rankings, fund advisor reputation, breadth and depth of product offerings, and scope and quality of services to investors. For the demand model in Appendix A to this paper, we incorporate variables in addition to price.

[4] Wharton School of Finance and Commerce, *A Study of Mutual Funds*, Report of the Committee on Interstate and Foreign Commerce, 87th Congress (1962), p. 28.

[5] *Id*., p. 29.

[6] *Id*., pp. 493-94.

[7] U.S. Securities and Exchange Commission, *Report on the Public Policy Implications of Investment Company Growth*, H.R. Rep., No. 2274, 87th Cong., 2d Sess. (1966), p. 12.

[8] *Id*., p. viii.

[9] Investment Company Act Amendments of 1970, Public Law, No. 91-547, 84 Stat. 1413 (1970), adding Section 36(b) of the ICA, as codified.

[10] SEC s*upra*, note 7, at pp. 44 and 52.

[11] Investment Company Institute, *2005 Investment Company Fact Book* (2005), p. 59 and Investment Company Institute, *2004 Mutual Fund Fact Book* (2004), p. 70 (hereafter, *ICI Fact Book*). The SEC found that load funds' share of assets fell from 74 percent in 1992 to 49 percent in 1999. U.S. Securities and Exchange Commission, *Report on Mutual Fund Fees and Expenses* (December 2000), pp. 20-21.

[12] Assets under management in US equity funds increased from $128.1 billion in 1985 to $4,212 billion through 2004, an approximately 33-fold increase. Strategic Insight, Simfund.

[13] Improving Price Competition for Mutual Funds and Bonds, Hearing before the Subcommittee on Finance and Hazardous Materials, Committee on Commerce, House of Representatives, 105th Congress, second session (Sept.

29, 1998); U.S. Securities and Exchange Commission, *Report on Mutual Fund Fees and Expenses* (December 2000), p 5; and *supra*, note 2.

[14] Section 15, ICA as amended 1970.

[15] Although advisory firms are not commonly fired, fund directors retain negotiating leverage and influence with advisory firms. For example, directors can threaten to resign, harming a fund's reputation and ability to attract new investors. On issues of performance, directors can pressure the advisor to replace poorly performing portfolio managers.

[16] Similarly, pension plans can vertically integrate and manage some or all of their investments in competition with external managers. Retail mutual funds can in theory manage their own portfolios but few choose to do so.

[17] Peter Tufano and Matthew Sevick, "Board Structure and Fee Setting in the U.S. Mutual Fund Industry," *Journal of Financial Economics*, 46 (1997), p. 325. However, investment advisors' portfolio managers are fired for poor performance and poor performance is often associated with high fees. Ajay Khorana, "Top Management Turnover: An Empirical Investigation of Mutual Fund Managers," *Journal of Financial Economics*, 12 (1996) pp. 403-427. Just as investors seek to maximize returns, advisors seek high returns because high returns increase inflows and assets, and advisors are generally compensated as a percentage of total assets.

[18] Some studies of equity mutual fund fee levels, such as the study by the U.S. General Accounting Office ("GAO"), acknowledge that equity mutual funds compete for investors' assets, but conclude that they do not compete on the basis of price. According to the GAO, the "Mutual fund industry generally does not attempt to compete on the basis of price. See GAO (2000), *supra*, note 2, p. 62. The GAO concludes that equity mutual funds compete primarily on non-price determinants of consumer choice by differentiating their product through service quality and scope, reputation of fund managers, breadth of fund complex, and, most importantly, historic performance returns to shareholders. The GAO further acknowledges that while funds compete primarily on performance, funds with lower fees tend to have better performance (p. 28). Because returns are enhanced by lower fees (returns equal share appreciation less expenses) and funds compete to a large extent on returns to shareholders, they necessarily compete on shareholder fees. Thus, it is virtually impossible to compete on returns and not compete on fees. Studies show a clear positive association between returns and the demand for mutual funds. See Brad M. Barber, Terrance Odean, and Lu Zheng, "Out of Sight, Out of Mind: The Effects of Expenses on Mutual Fund Flows," *Journal of Business*, 78 (November 2005), pp. 2095-2121; Ajay Khorana and Henri Servaes, "Conflicts of Interest and Competition in the Mutual Fund Industry," Working Paper (March 2005); Erik R. Sirri and Peter Tufano, "Costly Search and Mutual Fund Flows," *Journal of Finance*, 53 (October 1998), pp. 1589-1622; and William J. Baumol, Stephen M. Goldfeld, Lilli A. Gordon, and Michael F. Koehn, *The Economics of Mutual Fund Markets: Competition Versus Regulation*, Boston: Kluwer Academic Publishers (1990). Nevertheless, the GAO and others have concluded that mutual funds generally do not compete on price. The GAO, however, acknowledges that one class of investments – money market mutual funds – do compete primarily on price. GAO (2000), *supra* note 2, pp. 62-63.

[19] R. Glenn Hubbard and Anthony Patrick O'Brien, *Economics*, Prentice Hall, forthcoming (2006), and Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 4th edition, Boston: Pearson Addison Wesley (2005), pp. 56-87 and 159-99.

[20] R. Glenn Hubbard and Anthony Patrick O'Brien, *id*.; Richard A. Posner, *Antitrust Law*, 2nd ed., Chicago: University of Chicago Press, (2001), pp. 62-64 and 66-71, and George J. Stigler, "A Theory of Oligopoly," in *The Organization of Industry*, Homewood, Ill.: Richard D. Irwin, Inc. (1968), pp. 39-63.

[21] Lance Brannman, J. Douglass Klein, and Leonard Weiss, "The Price Effects of Increased Competition in Auction Markets," *Concentration and Price*, edited by Leonard Weiss, Cambridge, MA.: MIT Press (1989), pp. 67-84; James M. MacDonald, "Competition and Rail Rates for the Shipment of Corn, Soybeans, and Wheat," *RAND Journal of Economics*, 17 (1987), pp. 151-163; Steven N. Wiggins, and Robert Maness, "Price Competition in Pharmaceuticals: The Case of Anti-Infectives," *Economic Inquiry*, 42 (April 2004), pp. 247-63; Thomas Gale Moore, "U.S. Airline Deregulation: Its Effects on Passengers, Capital, and Labor," *Journal of Law and Economics*,

29 (April 1986), pp. 1-28; Ian Domowitz, R. Glenn Hubbard and Bruce C. Petersen, "Business Cycles and the Relationship Between Concentration and Price-Cost Margins," *RAND Journal of Economics*, 17 (Spring 1987), pp. 1-17; and Ian Domowitz, R. Glenn Hubbard and Bruce C. Petersen, "Oligopoly Supergames: Some Empirical Evidence on Prices and Margins," *Journal of Industrial Economics*, 36 (June 1987), pp. 379-398.

[22] The ICI reports 8,044 U.S. mutual funds in 2004, including 4,550 equity funds. *ICI Fact Book* (2005), *supra*, note 11, pp. 59 and 63.

[23] U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, Washington D.C.: U.S. Government Printing Office (1992).

[24] Some critics alleging a lack of price competition in mutual funds point to the Vanguard Group as an example of a firm that competes on price by maintaining low costs and fees to shareholders. The Managing Director of the Vanguard Group stated that the mutual fund industry competes on price, that low-price funds exist in each category of investment, giving investors an ample choice of low-price funds. See F. William McNabb, III, "Statement," Hearing before the Subcommittee on Finance and Hazardous Materials of the Committee on Commerce, House of Representatives, 105th Congress, second session (September 29, 1998), pp. 69-75. The former head of Vanguard also attributed Vanguard's success to price competition. See John C. Bogle, *supra*, note 2. The fact that the Vanguard Group became one of the largest fund complexes in the United States, based to a large extent on price competition, is simply not consistent with the 1960s view that price competition is absent among retail mutual funds. As a further example, Fidelity and Vanguard engaged in a price war throughout 2005 on their S&P 500 and other market index funds, for both small and large investors. "Fidelity Makes Fee Cuts Permanent," *The Wall Street Journal*, Mar. 2, 2005, p. C15, "Fidelity Cuts Fees for Big Investors, *The Wall Street Journal*, Oct. 18, 2005, p. C15, and *Dow Jones Newswire*, Oct. 17, 2005.

[25] A study using a different data set and time period found that the number of fund complexes grew from 167 in 1979 to 525 in 1998; see Ajay Khorana and Henri Servaes, *supra*, note 18, p. 45.

[26] American Funds reportedly gained $65 billion in new money in 2003, the largest increase by a fund complex in mutual fund history. "In Risky Times, Investors Embrace Cautious Dynasty," *Wall Street Journal* (Nov. 11, 2004), p. A1.

[27] Investors can purchase shares directly from individual funds by mail, telephone, or the Internet. A few funds charge purchase fees, but most do not.

[28] A large share of mutual fund investors own funds through retirement plans, such as 401(k) plans and IRAs. According to one survey, more than 60 percent of mutual fund shareholders in 2004 held shares through defined contribution retirement plans. However, about two-thirds of fund shareholders also owned funds outside of defined contribution plans. *ICI Fact Book* (2005), *supra*, note 11, pp. 32-33. Employers typically provide a choice of about five to ten mutual funds for employees' investment decisions. The employer acts as the agent for employees in selecting funds for investment. Employers frequently provide investment information to aid in selecting funds and allocating assets across funds.

[29] Investors seeking more guidance in setting investment goals and matching mutual funds to achieve those goals can gain information and make purchases through securities brokers, registered sales representatives at banks and savings and loans, and independent financial advisors. Investors can seek advice on asset allocations and which funds to purchase. Investments in mutual funds also take place through insurance brokers when purchasing annuities, which are also offered through banks and savings institutions and independent financial advisors. Also available through brokers are exchange traded funds. Exchange-traded funds ("ETFs") select groups of stocks to invest in, such as a market index like the S&P 500 or the Dow Jones Industrial Average, or by investing in a group of stocks in a given sector. ETFs are different than open-ended mutual funds, such as index funds. ETFs do not sell directly to investors. They issue shares in large blocks called "Creation Units" which they exchange for a basket of securities that generally reflect the securities in the ETFs. The large blocks are typically sold to institutions who sell individual shares in the secondary market. ETFs do not provide liquidity through redemption of shares like a mutual

fund. To redeem shares, an investor sells in the secondary market or sells the Creation Units back to the ETFs in exchange for securities underlying the asset. Because shares are not redeemable as in a fund, ETFs cannot call themselves mutual funds. However, they are a vehicle for investing in diversified stock portfolios.

[30] In the early 1990s, discount brokerage firms began offering fund supermarkets, through which there was a no-fee transaction; individual investors could select from a large (hundreds) offering of mutual funds. Fund investors can purchase funds in the supermarket as well as transfer assets between such funds, receiving statements from the brokerage firms. Funds make payments to the brokers to have their funds listed in the supermarket and to cover broker expenses. The brokers' costs of providing the funds and servicing the customers are compensated by the fund advisors from 12b-1 fees and other advisor revenues. The supermarket channel provides further price competition between mutual funds. With no-transaction-fee exchanges, investors can easily switch between mutual funds and form their own complexes of funds, both within an existing fund complex or across complexes. With multiple funds available from a single low-cost source, investors can more easily compare funds' fees, operating costs, and historical fund performance and ratings. Fund supermarkets provide direct competition to existing fund complexes by generating greater choice at a single source, with low search and exchange costs. Growth of investments in fund supermarkets is reflected in the asset growth of Charles Schwab's Marketplace fund supermarket. It grew from $31 billion in 1994 to $286.4 billion at the end of 2004. *Charles Schwab Annual Report*, 1999 and 2004.

[31] Large institutional buyers, including government organizations, corporations, foundations, endowments, and pension plans can purchase fund shares directly from the fund. Many investment advisors also offer other products, including individually managed accounts and co-mingled funds. Funds also sell directly to institutional investors, having separate products specifically for institutional buyers.

[32] *ICI Fact Book* (2004), *supra*, note 11, p. 47, and *ICI Fact Book* (2005), *supra*, note 11, p. 32.

[33] John K. Reid and John D. Rea, "Mutual Fund Distribution Channels and Distribution Costs," *Perspective*, 9 (July 2003). These fee schedules are not fixed for all investors. Discounts may be offered for large accounts, such as no 12b-1 fees for A class shares.

[34] *Id*., p. 15.

[35] *Id*., p. 16. Over a longer time period, Brad M. Barber, *et al*. found that the proportion of diversified United States equity funds invested in front-end load funds dropped from 91 percent in 1962 to 35 percent in 1999; See Brad M. Barber, *et al.*, *supra* note 18.

[36] John K. Reid and John D. Rea, *supra*, note 33, p. 17.

[37] A survey of 95 mutual fund complexes in 1999 found that 63 percent of 12b-1 fees were used to compensate broker-dealers and related expenses, with 32 percent going for administrative services, and 5 percent for advertising and promotion. *Id*., p. 19.

[38] For example, mutual funds are subject to a near-complete ban on conflict-of-interest transactions between the advisor and the fund involving portfolio investments, loans from a fund to its advisor, purchases of fund assets by an advisor, and a mandate that funds maintain their securities and other assets in the custody of qualified institutions. 15 U.S.C. §80a-17.

[39] Business corporations, by contrast, are vulnerable to value extraction by control persons through multiple channels (or "tunnels"). See generally John C. Coates IV, "Fair Value" as a Default Rule of Corporate Law: Minority Discounts in Conflict Transactions," *University of Pennsylvania Law Review*, 147 (1999), p. 1251 (discussing management buyouts, freezeouts and other conflict transactions and the way such transactions can allow control persons to extract value from partially owned corporations); Simon Johnson, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "Tunneling," *American Economic Review, Papers and Proceedings*, 90 (May 2000), pp. 22-27 (arguing civil law countries permit more tunneling than common law countries, but

acknowledging U.S. law as applied to ordinary business corporations only imposes loose controls on certain types of tunneling).

[40] James R. Barth, *The Great Savings and Loan Debacle*, Washington, D.C.: American Enterprise Institute (1991) (reviewing S&L crisis of 1980s); Annual Survey Issue, "Financial Institutions and Regulations, the S&L Crisis: Death and Transfiguration," *Fordham Law Review*, 59 (1991), pp. S1-S211 (same); Congressional Budget Office, *Economic Effects of the Savings and Loan Crisis: A CBO Study*, Washington D. C.: U.S. Government Printing Office (1992) (same); Federal Deposit Insurance Corporation, *History of the Eighties: Lessons for the Future*, Washington D.C., U.S. Government Printing Office (1998) (reviewing bank crises of early 1990s); and Ruth Simon, "With Wall Street on Defensive, Claims Against Brokers Surge," *Wall Street Journal*, (Apr. 27, 2003), p. A1 (reporting expected number of arbitration claims against brokers).

[41] U.S. Securities and Exchange Commission Press Release 2003-136, "SEC Chairman Donaldson Releases Statement Regarding Initiatives to Combat Late Trading and Market Timing of Mutual Funds," available at http://www.sec.gov/new/press/2003-136.htm (October 9, 2003) ("staff is aggressively investigating . . . allegations [of] . . . late trading and market timing," announcing staff consideration of new rules and rule amendments to prevent late trading abuses); SEC Office of Legislative Affairs, "Summary of SEC Initiatives in Response to Scandal," (Mar. 1, 2004), available at http://www.americanbenefitscouncil.org/documents/sec_mutual_fund_ initiatives.pdf (listing over 11 proposed or adopted responses to late trading and market timing scandal); *State of New York v. Canary Capital Partners LLC*, available at http://www.oag.state.ny.us/press/2003/sep/ canary_complaint.pdf (Sept. 3, 2003) (initial complaint alleging widespread late trading and market timing abuses).

[42] *Boss v. La Salle Bank, N.A.*, 84 F. Supp. 2d 947 (N.D. Ill. 1999). These laws also provide special procedural rules allowing fund shareholders to initiate lawsuits on behalf of funds against directors. Fiduciaries are obliged to act with care, loyalty, and in good faith in carrying out their duties. See generally Robert C. Clark, *Corporate Law*, Boston: Little, Brown (1986). As we discuss more below in Section VI, courts have developed procedural devices designed to minimize frivolous shareholder suits to enforce these duties, and (as is the case with similar suits involving business corporations) such suits are usually settled rather than tried on the merits. William P. Rogers and James N. Benedict, "Money Market Fund Management Fees: How Much is Too Much?" *New York University Law Review*, 57 (1982), p. 1098 (frequent settlement of fiduciary cases against fund advisors); Roberta Romano, "The Shareholder Suit: Litigation Without Foundation," *Journal of Law, Economics, and Organization*, 7 (1991), p. 84 (frequent settlement of fiduciary duty cases against business corporations generally). Nevertheless, they remain important guidelines for director behavior, and form the basis of the legal advice and education that fund directors are typically given about their role and duties in negotiating fees with fund advisors.

[43] Redeemable shares are not required by the ICA. See 15 U.S.C. §§80a-5(a) and -18. Another set of important contractual constraints on funds are restrictions on investment activities contained in the funds' prospectuses and advisory contracts.

[44] See Victoria E. Schonfeld and Thomas M.J. Kerwin, "Organization of a Mutual Fund," *Business Law*, 49 (1993), p. 107.

[45] See SEC, *Report on Investment Trust and Investment Companies*, Part I (1939), pp. 29-30, 101, and SEC, *Report on Investment Trusts and Investment Companies*, Part II (1939), pp. 34-39, 56, 112-13.

[46] For example, John P. Freeman and Stewart L. Brown, *supra*, note 2, note the fact of redeemable shares, but fail to consider how redeemable shares put competitive pressure on advisors to set fees competitively.

[47] SEC, Report, Part II, *supra*, note 45, pp. 38-39, 112-13; *ICI Fact Book* (2005), *supra*, note 11, p. 9.

[48] For evidence on the relationship between expenses and net returns and market shares, see papers listed in *supra*, note 18.

[49] John C. Bogle, *supra*, note 2.

[50] Susan E.K. Christoffersen, "Why do Money Fund Managers Voluntarily Waive their Fees?" *Journal of Finance*, 56 (June 2001), pp. 1117-40.

[51] John P. Freeman and Stewart L. Brown, *supra,* note 2, pp. 609-74 and John C. Bogle, *supra,* note 2.

[52] If research and portfolio management costs are small relative to total costs, then such potential economies of scale may be offset by diseconomies in other costs, such as in servicing investors. Using regression analysis to explain management expenses and test for economies of scale, the SEC did not find a strong relationship between management expenses and fund size, contrary to the 1960s view's claim of large economies of scale in portfolio management. However, reported management expenses often included costs other than pure portfolio management. SEC, *supra* note 11, p. 29-31.

[53] Trends in expense ratios also vary depending on whether the ratios are measured as operating expenses net of 12b-1 fees, inclusive of 12b-1 fees, or operating expenses with 12b-1 fees including amortized front- and back-end load fees; that is, whether the expense ratios measure total shareholder costs or only a portion of total costs. Finally, innovation in marketing through new channels of distribution, such as the supermarkets of funds through brokers, can also affect expense ratios over time due to fees for using certain channels of distribution.

[54] *Id*., pp. 24 and 27.

[55] SEC, *supra*, note 11; John C. Bogle, *supra*, note 2; Brad M. Barber, *et al.*, *supra*, note 18; and Investment Company Institute, "The Cost of Buying and Owning Mutual Funds," (February 2004).

[56] Ali Hortacsu and Chad Syverson, "Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry: A Case Study of S&P 500 Index Funds," *Quarterly Journal of Economics*, 119 (May 2004), p. 412.

[57] SEC, *supra,* note 11, p. 42.

[58] GAO (2000), *supra,* note 2, p. 50 and GAO (March 2003), *supra,* note 2, p. 6.

[59] Michele LaPlante, "Influences and Trends in Mutual Fund Expense Ratios," *Journal of Financial Research,* 24 (Spring 2001), pp. 45-63.

[60] *Id*. p. 54.

[61] Erik R. Sirri and Peter Tufano, "Competition and Change in Mutual Fund Industry," *Financial Services, Perspectives and Challenges,* edited by Samuel L. Hayes, III, Boston: Harvard Business School Press, (1993), p. 200.

[62] Erik R. Sirri and Peter Tufano, *supra,* note 18, p. 1593.

[63] SEC, *supra,* note 11, p. 22.

[64] ICI, *supra,* note 55.

[65] Ajay Khorana and Henri Servaes, *supra,* note 18, p. 45.

[66] SEC, *supra,* note 11, p. 22.

[67] ICI, *supra,* note 55.

[68] Such a conclusion is also unwarranted when looking at bond and money market fund expense ratios. Bond and money market mutual funds are organized similarly to equity funds. The 1960s view's claim that advisors engage in self-dealing in charging excess fees based on organizational structure would apply equally to bond and money

market funds, yet studies do not show a consistent pattern of rising expense ratios in these types of funds. *Id*., and GAO (2000), *supra*, note 2.

[69] Shares for AIM, Janus, and Putnam fell during this period, but were affected by the 2003 market timing scandal.

[70] "In Risky Times, Investors Embrace Cautious Dynasty," *Wall Street Journal*, (Nov. 15, 2004), p. A1.

[71] Strategic Insight, SimFund.

[72] Some observers speculate that capital gains reduce investor mobility. However, capital gains have not prevented large redemptions at times in funds under SEC investigation or during stock market downturns.

[73] Ajay Khorana and Henri Servaes, *supra*, note 18.

[74] *Id*, p. 23.

[75] Mark M. Carhart, "On the Persistence in Mutual Fund Performance," *Journal of Finance*, 52 (March 1997), pp. 57-82.

[76] Brad M. Barber, *et al., supra*, note 18.

[77] Vikram Nanda, Z. Jay Wang and Lu Zheng, "Family Values and the Star Phenomenon: Strategies of Mutual Fund Complexes," *Review of Financial Studies*, 17 (2004), pp. 667-98, and Diane Del Guercio and Paula A. Tkac, "Star Power: The Effect of Morningstar Ratings on Mutual Fund Flows," Working Paper, Federal Reserve Bank of Atlanta, (2004).

[78] Erik R. Sirri and Peter Tufano, *supra*, note 18, pp. 1589-622.

[79] Erik R. Sirri and Peter Tufano, *supra*, note 61, pp. 195-96.

[80] *Id*.

[81] Vikram Nanda, *et al., supra*, note 77.

[82] Michael Koehn, Jimmy Royer, and Marc van Audenrode, "When Family Values Really Matter: A Comment on 'Family Values and the Star Phenomenon: Strategies of Mutual Fund Complexes'," Working Paper, Université de Sherbrooke (July 2005).

[83] William J. Baumol, *et al., supra*, note 18.

[84] See especially Vikram Nanda *et al*., *supra*, note 77.

[85] The view that mutual fund advisors grow fee income at the expense of fund shareholders is also contradicted when advisors close funds to new investors in order to improve returns to fund shareholders. Simfund's 2004 data show that approximately 12 percent of small-cap funds were closed to new investors. Various growth and other investment style funds with substantial assets were also closed to new investors, including Fidelity Magellan ($63.3 billion), Dodge and Cox Stock ($43.3 billion), Vanguard PRIMECAP ($23 billion), Dodge and Cox Balanced ($21 billion), T. Rowe Price Mid-cap ($12.7 billion), Janus Twenty ($10 billion), and Longleaf Partners ($9 billion).

[86] Wharton Report, *supra*, note 4, pp. 96-100.

[87] SEC, *supra*, note 7, pp. 11-12.

[88] *Id*., p. 11. As reported above, the SEC's 2000 report on fees found little evidence of economies of scale in management fees. SEC, *supra*, note 11, pp. 29-31.

[89] George Stigler, "The Economies of Scale," *Journal of Law and Economics*, 1 (October 1958), pp. 54-71.

[90] *Jeffrey Krinsk v. Fund Asset Management, Inc,. et al*., 715 F. Supp. 472, 496 (1988) and *Irving Gartenberg v. Merrill Lynch Asset Management et al*., 528 F. Supp. 1038, 1055 (1981). Some courts have found that service costs do not decline with increases in the number of a fund's investors. Some courts found that defendant mutual funds provided fee breakpoints with increasing asset size and concluded from the fee schedule that economies of scale existed and were being passed on to shareholders. *Irving Gartenberg v. Merrill Lynch Asset Management et al*. 528 F. Supp. 1038, 1055 (1981), and *Gertrude Schuyt v. Prime Reserve Fund*, 663 F. Supp.962, 979, 1987 Fed. Sec. L. Rep. (CCH) P93,312. Other courts, however, have required plaintiffs to show that costs per unit of output declined with asset growth before considering whether cost savings were being passed on to shareholders. *Lucyle Kalish and Sol Kamen v. Franklin Advisors, Inc. et al*., 742 F. Supp. 1222, 1238 (1990), and *Jeffrey Krinsk, v. Fund Asset Management, Inc. et al*., 715 F. Supp. 472, 496 (1988).

[91] James S. Ang and James Wuh Lin, "A Fundamental Approach to Estimating Economies of Scale and Scope of Financial Products: The Case of Mutual Funds," *Review of Quantitative Finance and Accounting*, 16 (May 2001), pp. 205-21; D. Latzko, "Economies of Scale in Mutual Fund Administration," *The Journal of Financial Research*, 22 (Fall 1999), pp. 331-39; C. Bonanni, J. Dermine, and L. Roller, "Some Evidence as Customer Lock-in in the French Mutual Funds Industry," *Applied Economics Letters*, 5 (May 1998), pp. 275-79; Sean Collins and Phillip Mack, "The Optimal Amount of Assets under Management in the Mutual Fund Industry," *Financial Analysts Journal*, 53 (1997), pp. 70-71; and William J. Baumol, *et al*., *supra* note 18, pp. 185-89. While using assets as a measure of output is convenient (because fees are typically set as a percentage of assets), assets may not be the best proxy for output for all costs, including research and portfolio management. Indeed, the number of accounts or average account size may be a better proxy for output for some service costs, such as transfer agent expenses.

[92] Michael K. Berkowitz and Yehuda Yotowitz, "Managerial Quality and the Structure of Management Expenses in the U.S. Mutual Fund Industry," *International Review of Economics and Finance*, 11 (2002), pp. 315-30; Peter Tufano and Matthew Sevick, *supra*, note 14, pp. 321-55; J. Dermine, L.H. Roller, and C. Bonanni, "Customer Loyalty, Scale Economies and Economies of Scope in French Funds: Additional Evidence," INSEAD Working Paper (1993); Jean Dermine and Lars-Hendrik Roller, "Economies of Scope and Scale in French Mutual Funds," *Journal of Financial Intermediation*, 2 (March 1992), pp. 83-93; and William J. Baumol *et al*. (1990), *supra* note 18, pp. 190-92.

[93] Daniel Deli focused directly on the issue of whether economies of scale are a benefit to investors, indicating the existence of price competition. Examining a sample of 4,833 funds in 1997 and, holding fund characteristics constant, he found an inverse relationship between the marginal compensation of advisors and both the size of the fund and the fund complex. As the size of funds and fund complexes increase, the marginal compensation of fund advisors declines, indicating cost reductions from economies of scale and scope benefit investors. Daniel N. Deli, "Mutual Fund Advisory Contracts: An Empirical Investigation," *Journal of Finance*, 57 (February 2002), pp. 122.

[94] John P. Freeman and Stewart L. Brown, *supra*, note 2, pp. 639-640.

[95] John W. Pratt, David A. Wise, and Richard Zeckhauser, "Price Differences in Almost Competitive Markets," *Quarterly Journal of Economics*, 93 (May 1979), pp. 189-211; Saul Lach, "Existence and Persistence of Price Dispersion: An Empirical Analysis," *Review of Economics and Statistics*, 84 (August 2002), pp. 433-44; and Alan T. Sorenson, "An Empirical Model of Heterogeneous Consumer Search for Retail Prescription Drugs," Working Paper, University of California, San Diego (September 14, 2001). Sorenson shows the extent of price dispersion for prescription drugs across pharmacies. However, the use of third-party payers and the prohibition on price advertising on prescription drugs limit the extent of price competition.

[96] R. Glenn Hubbard and Anthony Patrick O'Brien, *supra*, note 19, and Dennis W. Carlton and Jeffrey M. Perloff, *supra*, note 19, pp. 440-70.

[97] Having different preferences and opportunity costs, consumers compare goods across sellers according to the services and other characteristics provided. Indeed, even where search costs for prices are extremely low, such as across Internet sellers (some Internet sites, such as for books and travel, provide price information for multiple sellers), studies show that price dispersion continues to exist and persist. Online examples of price dispersion across identical products include such products as best-selling books, CDs, and life insurance products. Some consumers are interested primarily in price while others have a preference for non-price factors and are willing to make a price-brand tradeoff, paying a premium for a specific seller's brand, such as buying a book from Amazon or Barnes and Noble versus some relatively unknown seller. Michael R. Baye, John Morgan, and Patrick Scholten, "Price Dispersion in the Small and in the Large: Evidence from an Internet Price Comparison Site," *Journal of Industrial Economics*, 52 (December 2004), pp. 463-96; Jeffrey R. Brown and Austan Goolsbee, "Does the Internet Make Markets More Competitive? Evidence from the Life Insurance Industry," *Journal of Political Economy*, 110 (2002), pp. 481-507; Karen Clay, Ramayya Krishnan, and Eric Wolff, "Prices and Price Dispersion on the Web: Evidence from the Online Book Industry," *Journal of Industrial Economics*, 49 (December 2001), pp. 521-40; and Michael D. Smith and Erik Brynjolfsson, "Consumer Decision-Making at an Internet Shopbot: Brand Still Matters," *Journal of Industrial Economics*, 49 (December 2001), pp. 541-58. Wholesale prices have also been found to vary for such commodity-like products as white bread, corrugated boxes, and ready-mix concrete, depending on the seller's plant size. Mark J. Roberts and Dylan Supina, "Output Price, Markups, and Producer Size," *European Economic Review*, 40 (1996), pp. 909-21.

[98] Stereotypical examples of brand differentiation include brand name versus private labels for chemically identical products, such as competing aspirin or liquid bleach products, where prices can differ significantly. Obvious examples of retailer differentiation in the purchase of an identical good would be Costco versus a full-service retailer, or catalogue and Internet sellers versus brick-and-mortar outlets.

[99] Vanguard, however, does provide financial planning for an additional fee. For example, it provides a ten-year plan for investors for as much as $1,500. "Helping Boomers Chart Their Course," *Wall Street Journal* (May 6, 2005), p. R1.

[100] Ali Hortacsu and Chad Syverson, *supra*, note 56.

[101] *ICI Fact Book* (2005), *supra*, note 11, p. 30.

[102] Institutional accounts vary widely, including trusts, foundations, life insurance companies, pension plans, and various levels of high-net-worth individuals. Those comparing institutional fees to retail fees focus on public pension plans, or fees where the investment advisor is offering portfolio management services primarily. In contrast, many investment advisors to retail funds also offer institutional funds to large investors, sometimes offering sister funds of the same name to retail customers.

[103] Wharton Report, *supra* note 4, p. 489; SEC, *supra*, note 7, pp. 114-21; and John P. Freeman and Stewart L. Brown, *supra*, note 2, pp. 627-40.

[104] John P. Freeman and Stewart L. Brown, *supra*, note 2, p. 628, fn. 88, and p. 629, fn. 93. However, if a mutual fund were limited to institutional clients, the alleged conflict of interest between shareholders and investment advisors would likely still prevail.

[105] Courts have recognized the invalidity of comparing fees between institutional and retail clients. *Mark S. Bromson v. Lehman Management Co., Inc. and Lehman Cash Management Fund, Inc*. 1986 U.S. Dist. LEXIS 28223, S.D.N.Y. (March 13, 1986); *Irving Gartenberg v. Merrill Lynch Asset Management*, 694 F.2d 923, 930 n. 3 (2d Cir. 1982, cert denied, 461 U.S. 906, (1983); and *Lucyle Kalish and Sol Joseph Kamen v. Franklin Advisers, Inc., et al*. 742 F. Supp. 1220, 1237 (S.D.N.Y. 1990).

[106] Wharton Report, *supra*, note 4, p. 489.

[107] SEC, *supra*, note 7, p. 115.

[108] It is unclear whether the Wharton Report or the SEC study controlled for differences in asset size, number of accounts, and other factors between their mutual fund and institutional samples. Factors other than an absence of price competition may explain in part the fee differences.

[109] SEC, *supra*, note 11, pp. 24 and 27.

[110] Funds experiencing large outflows relative to inflows sell securities in response, exacerbating price below fundamental value in securities held in common by funds experiencing similar liquidity demands. Joshua D. Coval and Erik Stafford, "Asset Fire Sales (and Purchases) in Equity Markets," NBER Working Paper Series (May 2005). Managing liquidity and performance to avoid such "fire sales" requires investment in research and portfolio management expertise.

[111] John P. Freeman and Stewart L. Brown, *supra*, note 2, p. 630. Whether the sample is valid is unclear. For example, pension plans paying higher fees may have been reluctant to respond.

[112] *Id*., pp. 631-635.

[113] *Id*, p. 631, fn. 100. John P. Freeman and Stewart L. Brown also compared average investment advisory fees for S&P 500 index funds charged to retail shareholders, pension plans, and the fee charged by the Vanguard S&P 500 fund. They found that mutual funds were charged 16 basis points on average and pension plans 1.4 basis points. They claim that Vanguard charged only 0.01 percent. *Id*, p. 640. In 2005 Vanguard charged investors with a minimum $3,000 investment 17.7 basis points. Investor's in Vanguard's Institutional Index fund, with a minimum $5 million investment, paid 5 basis points for the same portfolio of S&P 500 assets. *Vanguard 500 Index Fund Prospectus*, Apr. 29, 2005, pp. 3-4, and *Vanguard Institutional Index Fund Prospectus*, Nov. 15, 2005, pp. 1-3.

[114] SEC, *supra*, note 11, p. 29, fn. 103.

[115] Sean Collins, "The Expenses of Defined Benefit Pension Plans and Mutual Funds," *Perspective*, 9 (December 2003).

[116] *Id.*, p. 8.

[117] *Id*.

[118] John P. Freeman and Stewart L. Brown, *supra*, note 2, p. 638.

[119] *Id*., p. 631.

[120] *Irving Gartenberg v. Merrill Lynch Asset Management, Inc. et al*,. 694 F.2d 923, 932 (2nd Cir. 1982)

[121] *Gallus et al. v. American Express Financial Corporation and American Express Financial Advisors, Inc.*, 370 F. Supp. 2d 862, 865 n. 3, D. Minn. (March 7, 2005).

[122] Courts have not adopted the view that fall-out benefits are offsets to shareholders fees. Rather, the courts' instructions are to consider fall-out benefits when determining whether fees meet the standard of amended ICA §36(b). *Irving Gartenberg v. Merrill Lynch Asset Management, Inc., et al*., 694 F.2d 923, 932 (2nd Cir. 1982)

[123] And, returning to our earlier economic analysis, if competition exists among mutual funds because of investor mobility, fall-out benefits are passed on to shareholders. More specifically, fund stockholders purchase a package of services, including stock selection and portfolio management, research, brokerage transactions, transfer agent, custodial services, financial reporting, communication with the fund, marketing and distribution, compliance with regulations, a complex of alternative fund investments, etc. They pay fees to the investment advisor for the entire package of services rather than engaging in do-it-yourself portfolio management and investing. In return, they receive professional money management and administrative services. In addition, they receive one-stop shopping

from a fund complex, which economizes on customers' expenses by reducing search costs, transaction costs, the investor's record keeping costs, and so forth. As such, fund complexes provide an incentive for investors to concentrate their investments within the complex. Such concentration may benefit investors in all the complex's funds through economies of scale and economies of scope. By offering shareholders a multitude of products and services, an investment advisor seeks to increase demand and lower costs for all of its investors, which reduces shareholder fees.

Consider the following examples:

> *Income from securities lending.* In some cases, securities income goes to the fund, so there is no fall-out benefit. For example, the Fidelity Growth and Income fund receives income from securities lending. Fidelity Investments, *Fidelity Growth & Income Portfolio Annual Report* (July 31, 2004), p. A-20. The annual report states that the fund "lends portfolio securities from time to time in order to earn additional income." (p. A-27) In other cases, securities lending revenues may be split with, for example, the custodian, in exchange for lower custodial fees. In neither case do shareholders fail to capture securities lending income.
>
> *Profits from new customers and complementary business.* Existing shareholders benefit from the attraction of new investors to a fund by gaining lower fee breakpoints, up to the point at which breakpoints are exhausted. Investment by existing customers in additional funds enhancing economies of scope, which can contribute to lower costs per asset and shareholders' fees, benefiting existing investors.
>
> *Alleged rebates and soft dollar payments.* Rebates from vendors, such as transfer agents and custodian firms, are equivalent to price reductions. To the extent that competition prevails among funds receiving rebates, it leads to lower fund costs and shareholder fees.
>
> Soft-dollar payments can benefit shareholders. If the payment is in the form of lower brokerage commissions (in exchange for greater trading volume) then shareholders benefit directly by paying lower brokerage fees. If payment is in the form of research for the same commissions, shareholders benefit from additional research findings and insights. If the payment is in the form of slightly higher commissions in exchange for research, shareholders pay somewhat more in commissions for additional research. If the cost of research is less than the cost from the advisor's own research department, assuming no reductions in research quality, then customers benefit by gaining further research at a lower cost.
>
> *Reusing research and portfolio management.* To the extent that research costs are spread over multiple funds, investors benefit by lower shareholder fees. Using the research for additional portfolio management business, such as contracting to become a sub-advisor for another fund or an external portfolio manager for an institutional client, allows the fund to gain further incremental revenues toward covering total costs, benefiting all fund investors.
>
> *Float and free credit balances.* Float is an inevitable by-product of transacting business by checks. If customers can select accounts where balances are automatically swept into competitive-return money market funds until redirected to equity or bond investments, there is no fall-out benefit.

[124] John P. Freeman and Stewart L. Brown, *supra* note 2, p. 618, and SEC *supra*, note 7, p. 103.

[125] SEC, *supra*, note 7, pp. 104-105.

[126] *Id*, p. 88.

[127] *Id*, pp. 98 and 102.

[128] "Major Reorganization Set at Massachusetts Investors Trust Group," *Wall Street Journal* (July 2, 1969).

[129] John P. Freeman and Stewart L. Brown, *supra* note 2, pp. 618-19, and John C. Bogle, *supra,* note 2.

[130] *Vanguard 500 Fund Index Prospectus* (Apr. 23, 2004), p. 8, and *Vanguard 500 Index Annual Report* (Dec. 31, 2004), note B, p. 24.

[131] *Vanguard 500 Index Fund Annual Report* (Dec. 31, 2004), note B, p. 24. Various Vanguard fund prospectuses state that the fund may contribute up to 0.40 percent of net asset value to Vanguard's capital, but that Vanguard only takes 0.01 percent. This is a relatively small percentage, indicating that Vanguard is likely earning profits from additional sources. As an example, Vanguard manages over $100 billion in assets in its S&P 500 index fund, yet states that by the end of 2004 it took only $13.9 million as a contribution to capital from this specific fund.

[132] Fidelity and American Funds are challenging Vanguard as the low price leader in some product areas. "Vanguard Ups Ante In Fee Wars," *Wall Street Journal* (Apr. 21, 2005), p. D1. The SEC characterized all three fund groups as having relatively low cost, and as a consequence increasing their share of fund assets from 17 percent at the beginning of 1990 to more than 27 percent at the end of 1999. SEC, *supra,* note 11, p. 13.

[133] Based on our review of Vanguard's prospectuses, we estimate that Vanguard uses external portfolio managers as sub-advisers for over 90 percent of its actively managed assets. In some cases, Vanguard uses multiple portfolio managers for the same fund.

[134] A fund complex's success of course depends on more than low fees. TIAA-CREF is managed internally and has a reputation for low fees. However, TIAA-CREF's actively managed funds have provided low returns to investors in various periods, well below average market returns. Using a measure of return adjusted for risk over a three-year period, we found that TIAA-CREF produced returns statistically significantly below the market average at the end of 2002 and 2003 and not significantly different from the market average in 2000 and 2001. Vanguard's risk-adjusted returns were not significantly different from the market average in 2000, 2002, and 2003, and above the market average in 2001. In individual cases, low fees by themselves do not necessarily lead to superior returns for investors.

[135] Replicating Vanguard's mutual ownership structure may be unlikely today because Vanguard reportedly received various exemptions in the 1970s for its mutual ownership structure from the SEC. However, as noted above, funds with internal portfolio management existed long before Vanguard was formed in 1975.

[136] Samuel S. King, "Mutual Funds: Solving the Shortcomings of the Independent Director Response to Advisory Self-dealing Through Use of the Undue Influence Standard," *Columbia Law Review*, 98 (1998), p. 506 (proposing that courts engage in a "reasonableness" inquiry of fees based on inferences about influence that advisors could have on fund director). Interestingly, despite the harsh (and in our view, misplaced) criticism that John P. Freeman and Stewart L. Brown, *supra* note 2, direct at the fund industry, fee levels, and judicial interpretations of Section 36(b) of the ICA, their only specific policy or law reform proposals are (a) for courts to consider comparable fees – a proposal we endorse below, see text accompanying notes 133 to 141 *infra*, although for different reasons – and (b) for the SEC to mandate additional disclosure from advisors on their costs and profits.

[137] We do not here set out a complete case against government-determined prices, but assume that the case is one that most readers would already accept, absent evidence of serious market failure.

[138] Nothing in the ICA as initially adopted in 1940 reflects any intent to regulate the prices that funds pay for advisory services. Nor was this an oversight: in 1935, the same year Congress first directed the SEC to study the mutual fund industry, Congress was fully aware of the public utility model for industry regulation, having previously adopted a comprehensive statute regulating utilities (the Public Utilities Holding Company Act).

[139] Sen. Rep. No. 184, 91st Cong., 2d Sess. (1970), reprinted in [1970] U.S. Code Cong. & Ad. News 4897, 4902. Even if one were tempted to consider rate regulation a viable policy instrument in the fund industry, the courts are

perhaps the last branch of government to which such a complex and time-consuming task would be committed. Among other things, in the Anglo-American tradition, courts do not conduct the independent investigations that would be necessary for even the crudest form of rate regulation. See, *e.g*., Feeley, "The Adversary System," *Encyclopedia of the American Judicial System*, ed. by R. Janosik, 2 (1987) p. 753 (describing adversarial fact-finding). And even if one imagined that courts might play a routine role in setting prices advisers charge funds, representative litigation nominally initiated by shareholders generates many problems of its own. See generally Conference Report, Private Securities Litigation Reform Act of 1995, H.R. Rep. No. 369, 104th Cong., 1st Sess., 141 Cong. Rec. H13699 (Nov. 28, 1995) (detailing problems with and role of attorneys in controlling representative securities law actions); J. Avery, "Securities Litigation Reform: The Long and Winding Road to the Private Securities Litigation Reform Act of 1995," *Business Law*, 51 (1996), p. 335; Roberta Romano, *supra* note 40, p. 84 ("…shareholder litigation is a weak, if not ineffective, instrument of corporate governance."); Sanjai Bhagat and Roberta Romano, "Event Studies and the Law: Empirical Studies of Corporate Law," *American Law and Economic Review*, 4, (2002), p. 407 ("…wealth effects of derivative lawsuits are negligible."); Jonathon R. Macey and Geoffrey P. Miller, "The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform," *University of Chicago Law Review*, 58 (1991), p. 3 (critiquing representative litigation); Robert B. Thompson and Randall S. Thomas, "The New Look Of Shareholder Litigation: Acquisition-Oriented Class Actions," *Vanderbilt Law Review*, 57 (2004), p. 57 (analyzing results of representative shareholder litigation, generally concluding such litigation provides few benefits outside limited context of acquisition transactions); Elliott J. Weiss and Lawrence J. White, "File Early, Then Free Ride: How Delaware Law (Mis)Shapes Shareholder Class Actions," *Vanderbilt Law Review*, 57 (2004), p. 1797 (critiquing representative shareholder actions).

[140] SEC, *supra*, note 7, p. 129.

[141] The claim that pre-1970 fiduciary duty law had no effect on funds is too strong, however. Many suits attacking fees were settled (as has always been and remains true), and the pendency or threat of those suits are credited with the spread of breakpoints in advisor fee schedules in the 1960s. See *id*., pp. 132-43.

[142] S. 3724, 90th Congress, 2d Session (1998) and *Gartenberg v. Merrill Lynch Asset Management, Inc*., 528 F. Supp. 1038, 1045 n.7 (S.D.N.Y. 1998).

[143] This inference from congressional inaction is supported by a basic analysis of what such a standard would entail. The key point is that the word "reasonable" is far from precise; what one "reasonable" person finds "reasonable" another may not. As a result, if courts were charged with determining in the first instance whether a given fee was "reasonable," the result would be to transfer a substantial amount of discretion over fees from fund directors to judges. It is true that the sponsor of the final legislation stated as he introduced the bill into Congress that Section 36(b)'s "imposition of the fiduciary duty, would in effect require a standard of reasonableness," he said that by way of contrasting his characterization of pre-1970 law as requiring a showing that a fee was "excessively excessive." statement of Senator Moss, 116 *Congressional Record* 33281, (Sept. 23, 1970). In any event, in addition to the clear rejection of rate regulation quoted above, the final Senate Report accompanying Section 36(b) states that an:

> adviser is entitled to make a profit. Nothing is … intended to imply otherwise. … Nothing … is intended to suggest that a 'cost-plus' type of contract would be required. … This section is not intended to authorize a Court to substitute its business judgment for that of … fund … directors in the area of management fees [or] shift responsibility … from the directors … to the judiciary. Senate Report at 6-7, U.S. Code & Cong. & Admin. News 1970, at 4902.

[144] 15 U.S.C. §80a-36(b).

[145] 694 F.2d 923 (2d Cir. 1982), cert. denied, 461 U.S. 906, 103 S. Ct. 1877, 76 L. Ed. 2d 808, 51 U.S.L.W. 3774 (1983) and 740 F.2d 190 (2d Cir. 1984).

[146] 694 F.2d at 927-28.

[147] 694 F.2d at 929.

[148] See *Schuyt v. Rowe Price Prime Reserve Fund, et al*., 663 F. Supp. 962, 974 (S.D.N.Y. 1987) (declining to rely on expert testimony that found competition in the market for advisors as "directly contradicted" by *Gartenberg*). The Schuyt court stated an alternative rationale for not considering testimony about competition in the fund market the fact that the expert "did not deal in a cohesive fashion with the factors suggested" in *Gartenberg*. It is not clear why the fact that an expert offers evidence about one part of a multi-factor test??? should lead a court to ignore or treat lightly the evidence that is offered, so long as it is relevant, but this alternative explanation is at least compatible with *Gartenberg*. Cf. *Krinsk v. Fund Asset Management*, 715 F.Supp. 472, 497 (considering comparable fees, but citing *Gartenberg* for the proposition that such fees have "limited value due to the lack of competition among advisers for fund business.").

[149] 694 F.2d at 929.

[150] *Id*.

[151] 694 F.2d at 929.

[152] *Id.*

[153] *Id*. at 929 n.2.

[154] SEC Release No. 33-7494 (October 1, 1998).

[155] See *e.g*., SEC Releases Nos. 33-8433, 34-49909, IC-26486 (Aug. 5, 2004); IC-26195 (Sept. 29, 2003); and IC-20614 (Oct. 13, 1994).

[156] Baumol *et al*., *supra*, note 18 and Khorana and Servaes, *supra*, note 18.

[157] Koehn, et al., *supra*, note 82.

[158] Ajay Khorana and Henri Servaes recognize that fees are affected by fund size but do not use two-stage least squares. Instead, they run a regression of fees on assets and other control variables, using the regression residuals in an attempt to correct for the endogeneity of fees. *Supra*, note 18.

[159] Jerry Hausman, "Specification Tests in Econometrics," *Econometrica*, 46 (1978), pp. 1251-71.

Table 1

Number of Funds, Number of Complexes, and Concentration for Equity Mutual Funds

1985-2004

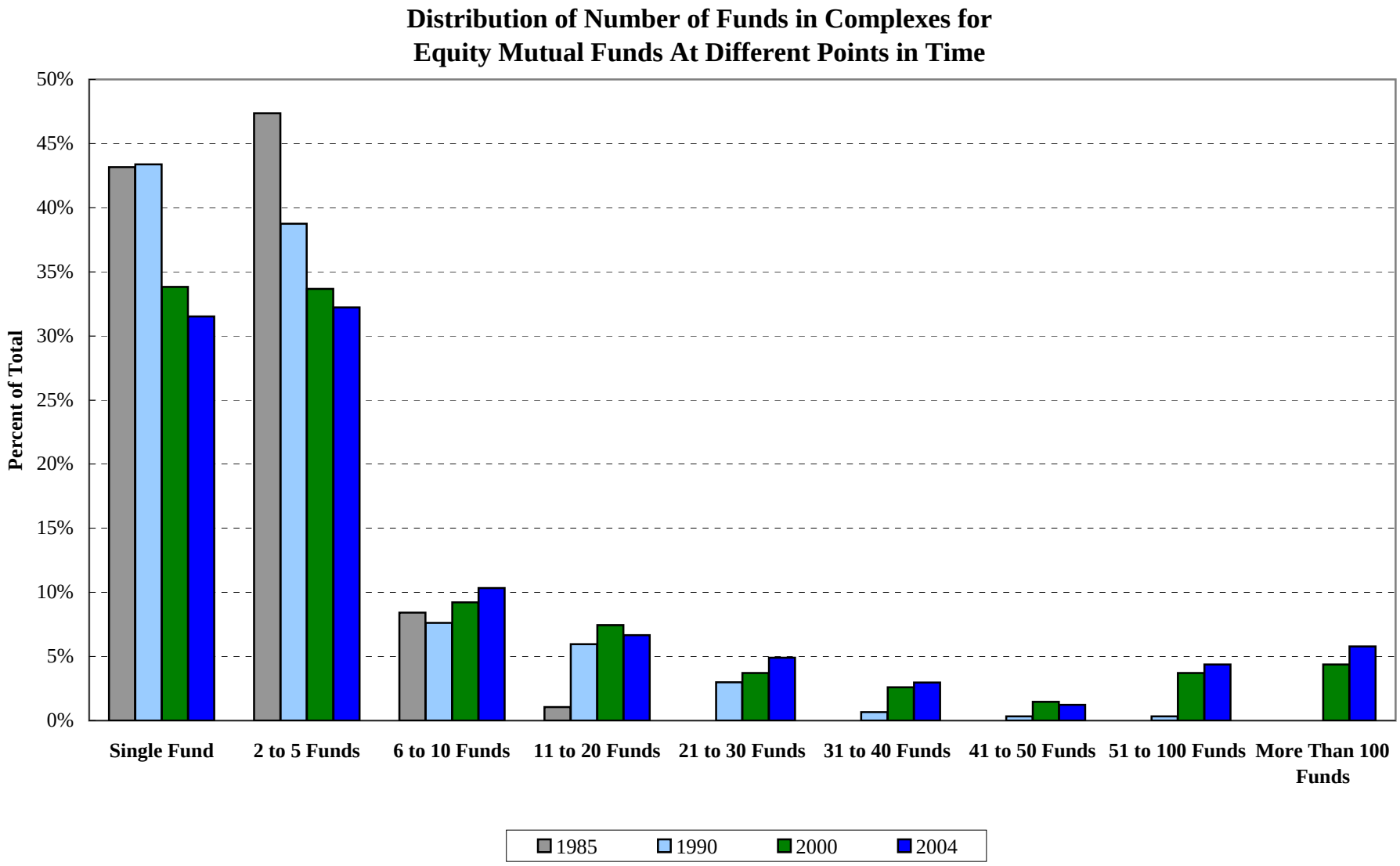
Year	Number of Funds	Number of Complexes	Fund Concentration	Complex Concentration
1985	650	192	79	374
1986	811	224	79	423
1987	1,004	251	71	414
1988	1,130	275	75	432
1989	1,194	295	79	455
1990	1,298	302	73	457
1991	1,391	321	72	478
1992	1,612	359	66	490
1993	1,890	390	58	539
1994	2,247	430	55	572
1995	2,467	463	57	596
1996	2,765	495	50	559
1997	3,161	538	50	548
1998	3,535	571	53	572
1999	3,796	614	50	555
2000	4,170	618	46	537
2001	4,218	608	46	549
2002	4,106	588	47	576
2003	3,979	577	46	591
2004	3,934	571	48	619

Note:
Fund and complex concentrations are measured by the Herfindahl-Hirschman Index (HHI), where HHI is defined by:

$$\text{HHI} = \sum_{i=0}^{n} (Market \quad Share)^2$$

Source:
Strategic Insight (Simfund)

Figure 1



Source: Strategic Insight (Simfund)

Table 2

Fund Concentration by Morningstar Category for Equity Mutual Funds

1985-2004

Year	Large Growth	Large Value	Mid Cap Growth	Small Cap Growth	International
1985	942.05	1,335.82	633.60	1,166.30	1,305.30
1986	928.77	1,199.81	486.18	1,068.20	904.33
1987	827.15	1,042.55	454.89	954.21	840.63
1988	806.95	1,092.03	446.08	1,034.14	856.62
1989	766.74	1,096.68	412.30	1,094.75	729.38
1990	704.29	1,047.85	388.93	1,014.33	479.91
1991	636.94	996.37	319.21	1,007.70	440.78
1992	618.52	909.82	285.25	701.26	361.72
1993	641.84	811.84	295.48	624.78	210.15
1994	678.44	764.03	330.19	615.73	192.57
1995	689.96	720.83	378.74	528.63	213.19
1996	687.08	690.38	381.04	497.60	209.83
1997	531.39	398.34	481.52	477.85	199.94
1998	391.37	362.15	453.33	389.64	190.82
1999	277.85	370.22	342.36	375.23	213.02
2000	236.17	336.05	241.40	373.93	220.91
2001	241.70	347.89	202.66	268.71	233.65
2002	244.88	452.10	203.50	256.49	224.23
2003	301.78	464.74	232.51	288.62	212.91
2004	391.22	416.05	278.26	340.78	219.82

Notes:

"International" is an aggregation of all funds in the following Morningstar categories: Diversified Emerging Markets, Diversified Pac/Asia, Europe Stock, Foreign Large Blend, Foreign Large Growth, Foreign Large Value, Foreign Small/Mid Growth, Foreign Small/Mid Value, Foreign Stock, Japan Stock, Latin America Stock, Pac/Asia Excluding Japan Stock, World Allocation, and World Stock.

Fund and complex concentrations are measured by the Herfindahl-Hirschman Index (HHI), where HHI is defined by:

$$\text{HHI} = \sum_{i=0}^{n} (\textit{Market} \quad \textit{Share})^2$$

Source:

Strategic Insight (Simfund)

Table 3

Complex Concentration by Morningstar Category for Equity Mutual Funds

1985-2004

Year	Large Growth	Large Value	Mid Cap Growth	Small Cap Growth	International
1985	1,226.84	1,773.17	972.81	1,570.46	2,675.31
1986	1,165.58	1,824.13	772.76	1,504.90	1,557.05
1987	1,058.66	1,744.11	705.50	1,346.94	1,558.13
1988	1,052.74	1,814.06	705.20	1,420.28	1,862.02
1989	1,070.13	1,888.43	659.31	1,354.35	1,722.92
1990	1,020.72	1,932.48	624.57	1,173.32	1,254.97
1991	1,042.74	1,926.37	559.05	1,138.39	1,213.42
1992	1,031.54	1,880.87	493.31	832.85	1,034.74
1993	1,041.03	1,760.59	478.33	734.75	735.61
1994	1,076.71	1,696.04	523.90	694.45	676.19
1995	1,053.18	1,569.00	611.04	593.29	698.99
1996	1,006.46	1,476.74	632.95	553.06	684.16
1997	808.97	886.59	1,101.50	543.63	690.15
1998	720.89	849.09	839.00	464.07	614.44
1999	830.79	1,010.92	544.77	424.15	613.30
2000	840.52	834.64	497.97	469.64	666.46
2001	694.30	901.85	396.66	341.73	747.63
2002	668.65	1,181.81	387.21	356.83	783.10
2003	717.49	1,199.43	482.60	399.04	810.33
2004	943.04	1,056.67	416.49	434.42	863.02

Note:

"International" is an aggregation of all funds in the following Morningstar categories: Diversified Emerging Markets, Diversified Pac/Asia, Europe Stock, Foreign Large Blend, Foreign Large Growth, Foreign Large Value, Foreign Small/Mid Growth, Foreign Small/Mid Value, Foreign Stock, Japan Stock, Latin America Stock, Pac/Asia Excluding Japan Stock, World Allocation, and World Stock.

Fund and complex concentrations are measured by the Herfindahl-Hirschman Index (HHI), where HHI is defined by:

$$\text{HHI} = \sum_{i=0}^{n} (\textit{Market} \quad \textit{Share})^2$$

Source:

Strategic Insight (Simfund)

Table 4

The Twenty Largest Equity Mutual Funds in 2004 that Did Not Exist in 1994

Fund	Fund Inception Year	Total Assets End of Year ($ in millions)	Size Percentile
Artisan International	1996	$11,228	1.55%
Schwab S&P 500 Index	1996	$8,814	2.19%
Fidelity Advisor Mid Cap	1996	$8,766	2.26%
Oakmark Equity & Income	1995	$8,704	2.29%
Vanguard Cap Opportunity	1995	$8,548	2.31%
Vanguard Mid Cap Index	1998	$8,485	2.34%
Hartford Capital Appreciation	1996	$8,138	2.49%
AIM Basic Value	1995	$7,296	2.67%
MFS Value	1996	$6,941	2.95%
PIMCO Commodity Real Return Strategy	2002	$6,202	3.25%
Vanguard REIT Index	1996	$5,998	3.36%
Artisan Mid Cap	1997	$5,919	3.38%
Oakmark Select	1996	$5,812	3.46%
Fidelity Advisor Diversified International	1999	$5,531	3.66%
Grantham Mayo Foreign	1996	$5,491	3.69%
Fidelity Advisor Dividend Growth	1999	$5,218	3.84%
SB Large Cap Growth (Managed by Citigroup Asset Management)	1997	$5,169	3.94%
Price Mid Cap Value	1996	$5,071	4.02%
Evergreen Asset Allocation	1997	$4,385	4.65%
ING International Value	1995	$4,241	4.75%

Notes:
Shares of equity mutual fund assets under management are as of year-end 2004.
Funds are ordered so that the smallest fund has a percentile of 100 percent and the largest fund has a percentile of approximately zero.

Source:
Strategic Insight (Simfund)

Table 5

The Twenty Largest Equity Mutual Fund Complexes in 2004 that Did Not Exist in 1994

Fund	Fund Inception Year	Total Assets End of Year ($ in millions)	Size Percentile
Artisan Partners	1995	$20,772	6.83%
Vantagepoint	1999	$8,715	11.38%
TIAA-CREF	1997	$6,983	13.31%
Marsico Capital	1997	$5,343	16.29%
SBC Financial	2001	$5,159	16.64%
Thornburg	1995	$4,884	16.99%
ProFunds	1997	$3,486	19.26%
L/G Research	1997	$2,460	21.72%
ICON Advisers	1997	$2,388	22.24%
Causeway Capital	2001	$2,345	22.59%
Olstein	1995	$2,073	23.99%
CRM Advisors	1995	$1,761	25.22%
Ameristock	1995	$1,723	25.74%
AssetMark	2001	$1,671	26.80%
Kensington	1999	$1,500	28.37%
Hussman Econometrc	2000	$1,470	28.55%
Westport Advisors	1998	$1,387	29.42%
Institutional Cap	1995	$1,342	29.77%
Northwestern Mutual	1997	$1,307	30.12%
Transamerica Financial	1995	$945	32.40%

Notes:
Shares of equity mutual fund assets under management are as of year-end 2004.
Complexes are ordered so that the smallest complex has a percentile of 100 percent and the largest complex has a percentile of approximately zero.

Source:
Strategic Insight (Simfund)

Table 6

Fee Waivers and Changes for Equity Mutual Fund Share Classes, 1998-2004

	Share Classes With Fee Waivers		Number of Share Classes With Fee Changes			
Year	Number of Share Classes	Percentage of Share Classes With Waivers	Decreases	Increases	No Change	Unknown
1998	1,995	42.0%				4,751
1999	2,325	46.9%	921	836	2,033	1,166
2000	2,699	41.7%	1,348	979	2,437	1,716
2001	3,543	45.7%	796	1,748	3,392	1,816
2002	4,168	49.2%	834	2,380	4,031	1,225
2003	4,341	48.4%	949	2,210	4,661	1,155
2004	4,139	48.0%	2,606	660	4,864	493

Notes:

1. A share class is determined to have waived fees if the average gross expense ratio inclusive of reimbursements and waivers, weighted by assets in each share class, exceeds the actual average expense ratio paid by shareholders.
2. Fee changes are based on expense ratios rounded to the hundredth decimal place: any fee change greater than five basis points is counted as a change. Changes of less than five basis points are classified as no change for that year.
3. Fee change for funds in the "Unknown" column cannot be calculated because the prior year's fee is not present in the database.

Source:
Strategic Insight (Simfund)

Table 7

Studies of Trends in Shareholder Fees and Expense Ratios

Study	Cost Measures	Sample and Time Period	Results
Barber, Odean, and Zheng (2005)	Asset Weighted Mean Operating Expense Ratio	U.S. Diversified Equity Mutual Funds, 1962-1999	-Ratio rose from 0.54 in 1962 to 0.90 in 1999. -12b-1 fees rose from 0.14 in 1993 to 0.20 in 1999
Khorana and Servaes (2004)	Weighted average expense ratio by fund family, plus one-seventh of front- and back-end loads	Total fund families in a particular year in all investment objectives, 1979-1998	Ratio fell from 1.4 in 1979 to 1.19 in 1998
Hortacsu and Syverson (2004)	Expenses plus one-seventh of annual loads	85 retail S&P 500 index funds, 1995-2000	Fees rose from 0.268 in 1995 to 0.322 in 2000
ICI (2004)	-Sales weighted expense ratio with amortized loads -Asset weighted expense ratio -Sales weighted operating expense ratio -Sales weighted average load charges	Equity funds, various years, 1980-2002	-Ratio declined from 2.26 in 1980 to 1.25 in 2002 -Ratio rose from 0.68 in 1980 to 1.00 in 1990 and 2002 -Ratio rose from 0.68 in 1980 to 0.86 in 1990, falling to 0.78 in 2002 -Load charges declined from 1.49 in 1980 to 0.18 in 2002
Bogle (2003)	Average expense ratio of mutual funds	1978-2002	Ratio increased from 0.91 in 1974 to 1.36 in 2002
U.S. GAO (2000 and 2003)	Weighted average expense ratios for equity and bond mutual funds, including	77 largest mutual funds, 1990-1998 76 largest mutual funds, 1999-2001	Ratio for the 46 largest equity funds declined from 0.74 in 1990 to 0.65 in 1998. Ratio then rose to 0.70 in 2001. Ratio for bond funds fell from 0.62 in 1990 to 0.58 in 1998 and to 0.54 in 2001.
SEC (2000)	Weighted average expense ratio	1,000 largest fund classes in all equity and bond mutual funds in 1999. Ratios reported for 1979, 1992, and 1995-1999.	Ratio rose from 0.73 in 1979 to 0.94 in 1999. Ratio for no-load funds fell from 0.76 in 1995 to 0.68 in 1998 and 0.72 in 1999. Median front-end load declined from 8.5% in 1979 to 4.75% in 1999.
Sirri and Tufano (1998)	Expense ratio plus amortized load over seven years	690 equity mutual funds from 1971 to 1990	Average ratio rose from 0.96 to 1.44 over the period. Total expense ratio, including loads, fell from 1.66 to 1.37.
Sirri and Tufano (1993)	Total cost weighted by fund assets with loads amortized over seven-years	632 equity mutual funds from 1970 to 1990	No-load funds ratios rose over the period from approximately 0.60 to 0.75 and fell in load funds from 2.25 to 1.9. Overall, total expense ratios fell from 2.2 to 1.5.

Table 8

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, 1985-2004

Complex	1985	1990	1995	2000	2004
AIM Investments	1.17%	2.11%	3.50%	3.73%	1.56%
AllianceBernstein	1.35%	*0.86%*	*0.72%*	1.41%	0.93%
American Century	2.11%	2.34%	2.43%	2.18%	1.65%
American Express	3.72%	2.58%	2.10%	1.89%	1.07%
American Funds	7.76%	9.71%	9.48%	8.48%	14.09%
Citigroup Ast Mgmt	1.97%	2.85%	1.42%	1.08%	1.05%
Columbia Mgmt Adv	*0.99%*	0.92%	1.28%	0.90%	0.93%
DFA		*0.40%*	*0.30%*	*0.34%*	0.89%
Davis-Selected Adv	*0.25%*	*0.30%*	*0.25%*	0.82%	0.87%
Delaware	1.03%	0.95%	*0.39%*	*0.26%*	*0.27%*
Dodge & Cox	*0.05%*	*0.09%*	*0.24%*	*0.29%*	1.62%
Dreyfus	3.23%	1.90%	0.96%	1.14%	0.94%
Eaton Vance	1.33%	*0.55%*	*0.19%*	*0.60%*	*0.61%*
Evergreen Investmt	1.87%	1.57%	0.97%	0.73%	*0.65%*
Fidelity	10.42%	13.46%	18.56%	15.35%	14.05%
Franklin Templeton	4.85%	5.51%	4.20%	2.77%	3.74%
Grantham Mayo	*0.02%*	*0.89%*	0.79%	*0.24%*	0.76%
Ivy Invst Mgmt	1.95%	1.66%	0.86%	*0.72%*	*0.47%*
JPMorgan Funds	*0.04%*	*0.16%*	*0.75%*	0.92%	0.85%
Janus	*0.36%*	*0.62%*	1.74%	4.53%	1.66%
Lord Abbett	2.41%	1.32%	*0.46%*	*0.46%*	0.88%
MFS	2.81%	1.78%	1.14%	2.29%	1.46%
Merrill Lynch	2.28%	3.04%	3.15%	1.47%	1.11%
Morgan Stanley Adv	1.25%	2.32%	2.09%	1.62%	*0.70%*
OppenheimerFunds	2.41%	1.69%	1.35%	1.68%	1.77%
Phoenix Investment	*0.84%*	1.03%	0.83%	*0.29%*	*0.15%*
Pioneer	3.41%	2.30%	0.99%	*0.61%*	*0.46%*
Prudential Finl	*0.85%*	1.88%	1.15%	0.97%	*0.56%*
Putnam	4.27%	2.75%	3.43%	5.41%	2.13%
Scudder	2.49%	2.51%	2.11%	1.64%	0.93%
Seligman	1.13%	*0.44%*	*0.47%*	*0.37%*	*0.17%*
T Rowe Price	3.17%	2.28%	2.54%	2.32%	2.72%
Van Kampen	3.36%	1.61%	*0.73%*	1.12%	1.23%
Vanguard	6.36%	7.32%	7.70%	10.56%	12.63%
Wells Fargo Bank	*0.45%*	*0.69%*	0.96%	0.91%	*0.73%*

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 9a

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, Large Growth Morningstar Category

Complex	1985	1990	1995	2000	2004
ABN AMRO Mgmt			*0.06%*	*0.45%*	0.73%
AIM Investments				2.28%	2.63%
Advantus Capital	0.06%	*0.07%*	*0.05%*	*0.01%*	
AllianceBernstein				2.36%	1.12%
American Century	13.67%	13.48%	23.40%	6.59%	5.31%
American Express	4.93%	5.28%	8.65%	1.36%	2.88%
American Funds	21.24%	22.48%	13.78%	5.97%	19.36%
Armstrong	0.12%	*0.05%*	*0.02%*	*0.00%*	*0.00%*
BlackRock		1.51%	0.41%	*0.28%*	*0.06%*
Caterpillar			0.47%	*0.09%*	*0.07%*
Citigroup Ast Mgmt		5.42%	3.33%	1.25%	2.34%
Columbia Mgmt Adv	2.69%	1.54%	1.02%	0.80%	*0.45%*
Consulting Group			1.15%	*0.24%*	*0.22%*
Dreyfus	2.01%	1.37%	1.07%	0.72%	*0.23%*
Evergreen Investmt				*0.54%*	0.63%
Fidelity	1.93%	3.59%	11.13%	20.41%	20.48%
Fifth Third Bank	0.01%	*0.04%*	*0.02%*		*0.17%*
Fortis		0.17%	*0.08%*		
Gabelli		1.15%	0.63%		*0.23%*
Harbor Capital		0.35%	1.19%	1.02%	1.13%
Ivy Invst Mgmt	4.59%	4.13%	1.52%	*0.38%*	*0.44%*
JPMorgan Funds		*0.03%*	*0.05%*	0.67%	*0.40%*
Janus	0.07%	1.39%	4.45%	12.18%	6.10%
John Hancock	0.77%	0.58%	*0.31%*	*0.09%*	*0.27%*
MFS	9.73%	4.43%	1.37%	5.04%	2.68%
MainStay Funds				0.61%	*0.32%*
Marsico Capital				*0.43%*	0.83%
Merrill Lynch			*0.21%*	1.22%	0.98%
Morgan Stanley Adv	0.46%	0.51%	2.87%	1.86%	0.87%
Nations Funds				*0.48%*	0.81%
Northern Trust			0.37%	*0.27%*	*0.22%*
Oak Assoc			*0.01%*	0.72%	*0.25%*
OppenheimerFunds				1.21%	1.76%
PIMCO/Allianz Glbl	1.04%	1.95%	1.79%	*0.35%*	*0.35%*
Phoenix Investment	1.46%	4.68%	3.65%	0.62%	*0.24%*
Prudential Finl			*0.22%*	1.32%	0.80%
Putnam				10.68%	3.49%
SEI			0.44%	0.59%	0.66%
SIT Investment	0.04%	*0.10%*	*0.06%*	*0.02%*	*0.01%*
Scudder	4.28%	3.89%	3.51%	*0.49%*	*0.42%*
Seligman	6.73%	2.72%	0.73%	*0.15%*	*0.08%*
Stonebridge	0.31%	0.17%	*0.04%*		
T Rowe Price				*0.01%*	2.90%
TCW Management				*0.10%*	0.67%
The Hartford	0.86%	0.81%	*0.34%*	*0.08%*	*0.15%*
Van Kampen	18.87%	12.24%	3.00%	2.70%	1.60%
Vanguard	1.60%	2.02%	5.11%	4.31%	4.11%
Wells Fargo Bank	2.51%	3.67%	1.65%	1.22%	0.91%

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 9b

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, Large Value Morningstar Category

Complex	1985	1990	1995	2000	2004
AIM Investments		*0.09%*	*0.14%*	4.62%	1.16%
AllianceBernstein				2.19%	1.24%
American Beacon		1.31%	1.40%	*0.14%*	*0.15%*
American Century			0.43%	1.58%	2.02%
American Express	0.22%	0.98%	2.27%	0.71%	1.03%
American Funds	17.37%	27.19%	21.02%	23.09%	28.18%
Ameritor	0.16%	*0.02%*	*0.00%*	*0.00%*	
CGM Funds	0.82%	0.89%	0.94%		
Citigroup Ast Mgmt	0.59%	0.26%	*0.11%*	2.16%	*0.40%*
Consulting Group			1.01%	*0.33%*	*0.21%*
Davis-Selected Adv	0.83%	1.20%	0.75%	4.79%	
Dodge & Cox	0.26%	0.52%	1.00%	0.99%	6.38%
Dreyfus	2.52%	1.42%	0.40%	*0.45%*	*0.26%*
Evergreen Investmt	0.02%	0.31%	0.97%	*0.37%*	*0.45%*
Federated	1.91%	1.10%	0.79%	1.39%	0.80%
Fidelity	21.50%	17.56%	23.60%	7.07%	6.88%
Fifth Third Bank	0.30%	0.55%	0.53%	*0.02%*	*0.10%*
Franklin Templeton		*0.03%*	*0.16%*	*0.08%*	2.00%
Harris Associates					1.92%
Highmark Capital		*0.11%*	0.39%	*0.18%*	*0.09%*
ING Investments	0.45%	0.26%	*0.21%*	*0.15%*	*0.11%*
IXIS Asset Mgmt	0.54%	0.40%	*0.23%*	*0.39%*	*0.05%*
Investors Security	0.03%	*0.02%*	*0.01%*	*0.00%*	
JPMorgan Funds		*0.02%*	0.44%	1.02%	0.59%
Legg Mason Capital				2.27%	*0.11%*
Lord Abbett		0.29%	*0.11%*	2.17%	3.27%
MFS				*0.11%*	1.27%
Mairs & Power	0.03%	*0.02%*	*0.01%*		
Merrill Lynch	3.60%	7.14%	5.48%	1.68%	1.51%
Morgan Stanley Adv			*0.07%*	2.29%	1.10%
NeubergerBerman	6.05%	2.68%	5.19%	1.37%	
OppenheimerFunds	0.28%	0.30%	1.02%	0.77%	*0.57%*
Pacific Financial	0.24%	0.37%	0.33%	*0.24%*	1.06%
Pioneer				2.57%	0.76%
Prudential Finl			*0.15%*	0.81%	*0.29%*
Putnam	8.11%	1.70%	0.90%	6.47%	3.62%
Ruane Cuniff	4.08%	2.61%	1.78%	0.69%	*0.56%*
SEI		0.47%	*0.33%*	0.63%	0.65%
Scudder		*0.04%*	*0.07%*	2.94%	1.25%
So.Eastrn/Longleaf					1.33%
T Rowe Price				2.42%	3.10%
US Bancorp		*0.00%*	0.41%	*0.38%*	*0.44%*
US Trust Company				*0.30%*	0.65%
USAA		0.28%	1.29%	*0.54%*	*0.32%*
Van Kampen				*0.36%*	3.22%
Vanguard	29.40%	28.41%	22.18%	10.09%	9.92%
Voyageur	0.02%	*0.07%*	*0.25%*	*0.09%*	*0.06%*
WM Advisors	0.65%	0.37%	0.33%	*0.27%*	*0.59%*

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 9c

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, Mid-Cap Growth Morningstar Category

Complex	1985	1990	1995	2000	2004
AIM Investments	4.31%	3.06%	11.03%	14.72%	3.77%
Alger		*0.34%*	1.08%	*0.73%*	0.95%
American Century	1.16%	5.75%	3.64%	2.98%	2.41%
American Express	3.25%	1.44%	0.96%	1.35%	1.68%
American Funds	5.97%	7.64%	4.61%		
Artisan Partners				*0.39%*	3.37%
Aster Invest					0.93%
Baron Asset				2.29%	1.81%
Berger	0.11%	*0.14%*	2.80%	*0.29%*	
BlackRock		*0.47%*	1.33%	1.87%	*0.29%*
Calamos Advisors				*0.07%*	7.78%
Columbia Mgmt Adv	*0.03%*	1.17%	1.80%	*0.56%*	1.26%
Credit Suisse				1.02%	*0.22%*
Davis-Selected Adv	0.40%	*0.48%*	*0.08%*	*0.05%*	
Delaware		1.85%	1.36%	2.07%	1.69%
Dreyfus	7.63%	5.87%	2.16%	*0.76%*	1.39%
Eaton Vance	0.54%	*0.48%*	*0.10%*		*0.13%*
Evergreen Investmt	13.14%	10.00%	4.05%	*0.46%*	*0.54%*
Excel Advisors	0.11%	*0.02%*	*0.01%*		
Federated				1.71%	4.73%
Fidelity	1.77%	7.20%	15.81%	6.56%	10.86%
Franklin Templeton				1.49%	6.41%
Friess Associates	*0.00%*	2.99%	5.73%	3.12%	2.21%
Investment Adviser			0.94%		
Ivy Invst Mgmt	0.38%	0.56%	*0.59%*	*0.85%*	*0.79%*
JPMorgan Funds				1.42%	1.80%
Janus			2.08%	4.51%	1.43%
Liberty Ridge Cap			*0.19%*	2.90%	*0.48%*
MFS	14.20%	10.93%	6.74%	0.93%	1.38%
MainStay Funds		*0.37%*	1.76%		*0.06%*
Merrill Lynch		4.96%	4.55%		
Morgan Stanley		*0.14%*	*0.17%*	1.38%	0.84%
Morgan Stanley Adv	1.85%	0.74%	1.01%	1.13%	*0.56%*
PIMCO/Allianz Glbl			1.26%	2.16%	1.08%
Phoenix Investment	3.58%	3.10%	1.22%	*0.06%*	*0.26%*
Prudential Finl		0.96%	*0.55%*	*0.89%*	*0.57%*
Putnam			*0.56%*	10.59%	3.28%
RS Investment Mgmt			1.67%	2.15%	*0.24%*
SIT Investment	0.28%	0.66%	*0.49%*	*0.37%*	*0.23%*
Security Managemnt	1.29%	*0.36%*	*0.08%*	*0.12%*	*0.13%*
Seligman	2.11%	1.16%	*0.29%*	*0.42%*	*0.33%*
Stein Roe	1.96%	0.86%	*0.43%*	*0.24%*	
T Rowe Price	16.72%	9.25%	5.45%	3.49%	7.79%
The Hartford	1.20%	2.28%	*0.85%*	2.57%	2.03%
UBS Glbl Asset Mgt	0.52%	0.68%	*0.85%*	*0.21%*	*0.23%*
Value Line	4.83%	4.20%	*0.85%*	*0.20%*	*0.22%*
Van Kampen	11.79%	7.24%	3.86%	1.30%	1.23%
Vanguard			*0.11%*	2.56%	5.29%
Vantagepoint				2.13%	*0.65%*
Wells Fargo Bank		*0.54%*	1.62%	*0.53%*	*0.70%*
William Blair	0.80%	0.60%	*0.47%*		*0.01%*

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 9d

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, Small-Cap Growth Morningstar Category

Complex	1985	1990	1995	2000	2004
AIB Govett			1.59%		
AIM Investments	0.76%	*0.26%*	7.71%	8.22%	2.55%
Allegiant		2.44%	1.54%	*0.31%*	*0.06%*
AllianceBernstein	9.74%	3.79%	*0.43%*	0.98%	*0.54%*
American Century	0.20%	0.81%	1.85%	*0.57%*	*0.29%*
American Funds		17.03%	14.61%	10.48%	9.74%
Aster Invest	0.45%	*0.27%*	1.21%	*0.14%*	
BankAmerica	1.25%	2.29%	*0.53%*		
Baron Asset		1.18%	1.21%	1.15%	4.85%
Berger			1.75%	1.07%	
Columbia Mgmt Adv	17.82%	21.47%	7.35%	4.18%	12.01%
Consulting Group			1.13%	1.03%	*0.27%*
Credit Suisse		0.67%	2.41%	*0.04%*	*0.07%*
Delaware	4.82%	1.77%	1.51%		*0.07%*
Dreyfus		*0.19%*	*0.74%*	2.64%	0.94%
Evergreen Investmt	1.89%	0.70%	*0.35%*	*0.71%*	1.15%
Federated		1.11%	9.55%	*0.54%*	*0.42%*
Fidelity				2.32%	3.05%
Franklin Templeton			*0.77%*	12.31%	1.15%
ING Investments			1.01%	0.95%	*0.18%*
Ivy Invst Mgmt				*0.51%*	1.12%
JPMorgan Funds			*0.04%*	2.50%	2.16%
Janus	0.44%	7.73%	7.02%	1.37%	1.14%
John Hancock	0.18%	0.77%	5.66%	2.15%	1.05%
Kopp Investment				0.91%	*0.37%*
Kornitzer Capital					1.54%
Liberty Ridge Cap			1.95%	0.98%	*0.22%*
Lord Abbett				2.07%	*0.82%*
MFS			*0.28%*	2.07%	0.97%
Managers Funds	1.37%	0.67%	*0.39%*	2.80%	4.06%
Monetta Financial		*0.17%*	1.11%	*0.10%*	
Morgan Stanley				*0.44%*	1.05%
Oberweis		0.32%	*0.41%*	*0.10%*	*0.17%*
OppenheimerFunds		1.51%	2.90%	2.43%	0.84%
PIMCO/Allianz Glbl	2.21%	1.08%	3.85%	*0.85%*	*0.74%*
RS Investment Mgmt		0.64%	*0.49%*	*0.58%*	1.98%
SEI			0.89%	1.15%	0.87%
Scudder	28.45%	15.43%	5.30%	1.49%	*0.52%*
Seligman	0.56%	0.53%	1.61%	*0.24%*	*0.09%*
Sentinel				*0.18%*	1.07%
SunAmerica		1.28%	*0.51%*		*0.36%*
T Rowe Price				5.70%	4.48%
The Hartford		0.49%	*0.31%*	*0.57%*	*0.44%*
US Bancorp			*0.15%*	*0.31%*	0.96%
USAA	7.03%	3.77%	1.36%	*0.08%*	*0.26%*
Value Line	13.64%	2.90%	*0.30%*	*0.05%*	*0.29%*
Vanguard				4.52%	8.50%
Wall Street	0.44%	*0.25%*	*0.04%*		
Wasatch		*0.10%*	1.44%	*0.49%*	3.23%
Weiss Peck Greer	8.75%	7.82%	*0.70%*		*0.04%*
Wells Fargo Bank			*0.26%*	1.36%	1.17%

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 9e

Shares of Equity Assets Under Management of Top 25 Mutual Fund Complexes, International Morningstar Category

Complex	1985	1990	1995	2000	2004
AIM Investments	0.55%	8.83%	2.46%	1.27%	0.84%
AllianceBernstein			1.24%	1.46%	1.79%
American Century			0.79%	1.67%	*0.74%*
American Express	0.91%	1.05%	1.12%	0.74%	*0.46%*
American Funds	9.84%	9.59%	13.64%	17.97%	24.60%
Artisan Partners				1.06%	1.78%
Columbia Mgmt Adv		*0.06%*	1.59%	1.10%	*0.59%*
Credit Suisse		*0.15%*	1.67%	*0.39%*	*0.08%*
DFA		1.99%	0.93%	*0.68%*	1.69%
Dreyfus		*0.12%*	*0.37%*	*0.67%*	0.88%
Evergreen Investmt	0.45%	0.31%	*0.47%*	*0.39%*	1.05%
Federated	0.47%	0.32%	*0.11%*	*0.45%*	*0.15%*
Fidelity	1.97%	6.06%	6.98%	4.62%	7.45%
First Eagle	0.59%	0.80%	1.81%	*0.46%*	2.65%
First Investors	0.35%	0.82%	*0.13%*	*0.07%*	*0.04%*
Franklin Templeton	48.96%	29.84%	15.99%	10.55%	10.10%
GAM	0.17%	0.32%	*0.39%*	*0.14%*	*0.03%*
Gabelli	0.03%	2.79%	*0.19%*	*0.09%*	*0.03%*
Glenmede Trust		0.41%	*0.25%*	*0.36%*	*0.29%*
Grantham Mayo		0.54%	2.35%	0.87%	3.52%
Harbor Capital		*0.24%*	2.05%	1.30%	1.30%
Harris Associates			*0.45%*	*0.20%*	1.08%
ING Investments	0.33%	*0.28%*	*0.28%*	0.89%	*0.78%*
Ivy Invst Mgmt	1.63%	1.22%	0.73%	*0.60%*	*0.25%*
JPMorgan Funds			*0.01%*	0.70%	*0.65%*
Janus			1.20%	9.04%	1.53%
Julius Baer				*0.10%*	1.45%
Lazard Asset Mgmt			0.82%	0.83%	*0.45%*
MFS		0.37%	*0.62%*	*0.60%*	0.98%
Meeder Asset Mgmt	0.08%	*0.09%*	*0.01%*	*0.00%*	
Merrill Lynch	4.29%	5.12%	9.42%	3.81%	2.29%
Morgan Stanley			0.96%	1.55%	1.70%
Morgan Stanley Adv	1.52%	2.26%	3.12%	1.68%	*0.64%*
Nations Funds			*0.04%*	*0.54%*	0.93%
Nomura Asset Mgmt	0.26%	*0.19%*	*0.02%*	*0.00%*	
OppenheimerFunds	3.26%	3.45%	1.72%	2.88%	3.08%
Phoenix Investment	0.64%	0.30%	*0.23%*	*0.20%*	*0.04%*
Putnam	1.05%	2.17%	2.03%	6.66%	1.88%
SEI		*0.11%*	*0.21%*	0.90%	*0.62%*
Scudder	5.77%	4.87%	2.98%	2.67%	0.91%
T Rowe Price	4.37%	5.22%	6.55%	3.50%	1.60%
The Japan Fund	4.18%	1.20%	*0.31%*	*0.12%*	*0.06%*
Tweedy Browne			*0.46%*	0.76%	0.89%
UBS Glbl Asset Mgt			0.71%	*0.25%*	*0.58%*
Vanguard	8.34%	6.33%	3.89%	4.09%	5.26%

Notes:

Shares of equity assets under management are measured as of year-end.

Complexes with italicized values for a given year are not in the top 25 in that year.

Source:

Strategic Insight (Simfund)

Table 10

Survival Rate of U.S. Equity Mutual Funds, 1985-2004 and 1995-2004

Initial Year	Initial Complex Size Decile	Percentage of Decile that Did Not Survive to 2004	Percentage of Decile that Survived to 2004	Distribution of Surviving Funds by Size Deciles as of 2004 (As a Percentage of Survivors)									
				1	2	3	4	5	6	7	8	9	10
1985	1	55.4%	44.6%	**3.4%**	3.4%	13.8%	3.4%	10.3%	6.9%	10.3%	17.2%	10.3%	20.7%
1985	2	41.5%	58.5%	7.9%	**7.9%**	2.6%	10.5%	7.9%	18.4%	7.9%	7.9%	18.4%	10.5%
1985	3	38.5%	61.5%	5.0%	5.0%	**0.0%**	7.5%	15.0%	10.0%	12.5%	15.0%	7.5%	22.5%
1985	4	40.0%	60.0%	5.1%	5.1%	5.1%	**0.0%**	10.3%	5.1%	12.8%	5.1%	25.6%	25.6%
1985	5	40.0%	60.0%	0.0%	2.6%	5.1%	5.1%	**7.7%**	5.1%	30.8%	10.3%	12.8%	20.5%
1985	6	33.8%	66.2%	0.0%	0.0%	4.7%	2.3%	14.0%	**9.3%**	16.3%	14.0%	16.3%	23.3%
1985	7	29.2%	70.8%	0.0%	0.0%	0.0%	6.5%	6.5%	10.9%	**8.7%**	17.4%	13.0%	37.0%
1985	8	32.3%	67.7%	0.0%	0.0%	4.5%	2.3%	2.3%	9.1%	11.4%	**22.7%**	6.8%	40.9%
1985	9	20.0%	80.0%	0.0%	0.0%	0.0%	0.0%	1.9%	3.8%	7.7%	7.7%	**19.2%**	59.6%
1985	10	4.6%	95.4%	1.6%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	6.5%	19.4%	**71.0%**
	Average	**33.5%**	**66.5%**										
1995	1	53.3%	46.7%	**24.3%**	12.2%	11.3%	11.3%	7.0%	2.6%	4.3%	10.4%	11.3%	5.2%
1995	2	51.8%	48.2%	10.1%	**17.6%**	10.1%	14.3%	6.7%	12.6%	13.4%	5.9%	4.2%	5.0%
1995	3	43.7%	56.3%	2.2%	9.4%	**9.4%**	15.8%	17.3%	11.5%	10.8%	11.5%	9.4%	2.9%
1995	4	44.3%	55.7%	2.2%	6.6%	11.7%	**13.1%**	18.2%	14.6%	11.7%	9.5%	6.6%	5.8%
1995	5	40.9%	59.1%	0.0%	5.5%	8.2%	17.8%	**9.6%**	18.5%	9.6%	13.0%	11.0%	6.8%
1995	6	31.2%	68.8%	0.6%	2.4%	3.5%	7.6%	12.4%	**19.4%**	13.5%	16.5%	13.5%	10.6%
1995	7	27.2%	72.8%	0.6%	2.8%	2.8%	5.0%	8.4%	9.5%	**20.1%**	24.0%	18.4%	8.4%
1995	8	27.1%	72.9%	0.0%	0.6%	2.2%	3.9%	11.7%	8.3%	16.1%	**19.4%**	20.6%	17.2%
1995	9	15.8%	84.2%	0.0%	0.0%	1.4%	0.0%	2.4%	7.2%	11.1%	21.2%	**26.0%**	30.8%
1995	10	6.1%	93.9%	0.0%	0.0%	0.0%	0.0%	0.4%	1.3%	0.9%	6.5%	20.7%	**70.3%**
	Average	**34.1%**	**65.9%**										

Notes:
Deciles are determined by total assets under management. Decile 10 represents the largest funds.
Size deciles are recalculated in 2004 using all funds in existence.
A fund is deemed to have survived if it has positive net assets in 2004. The dataset does not distinguish between funds that were liquidated and funds that were merged into other mutual funds.

Source:
Strategic Insight (Simfund)

Table 11

Survival Rate of U.S. Equity Mutual Fund Complexes, 1985-2004 and 1995-2004

Initial Year	Initial Complex Size Decile	Percentage of Decile that Did Not Survive to 2004	Percentage of Decile that Survived to 2004	Distribution of Surviving Complexes by Size Deciles as of 2004 (As a Percentage of Survivors)									
				1	2	3	4	5	6	7	8	9	10
1985	1	52.6%	47.4%	**11.1%**	0.0%	11.1%	22.2%	11.1%	0.0%	11.1%	0.0%	33.3%	0.0%
1985	2	47.4%	52.6%	0.0%	**10.0%**	0.0%	10.0%	30.0%	10.0%	10.0%	10.0%	20.0%	0.0%
1985	3	26.3%	73.7%	14.3%	14.3%	**0.0%**	7.1%	14.3%	28.6%	7.1%	7.1%	7.1%	0.0%
1985	4	36.8%	63.2%	0.0%	0.0%	8.3%	**8.3%**	0.0%	0.0%	8.3%	41.7%	25.0%	8.3%
1985	5	40.0%	60.0%	16.7%	0.0%	0.0%	0.0%	**0.0%**	8.3%	16.7%	8.3%	25.0%	25.0%
1985	6	21.1%	78.9%	0.0%	0.0%	6.7%	20.0%	6.7%	**13.3%**	0.0%	13.3%	26.7%	13.3%
1985	7	26.3%	73.7%	0.0%	0.0%	0.0%	21.4%	0.0%	7.1%	**14.3%**	14.3%	35.7%	7.1%
1985	8	10.5%	89.5%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	11.8%	**17.6%**	11.8%	52.9%
1985	9	5.3%	94.7%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	5.6%	**22.2%**	66.7%
1985	10	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**
	Average	**26.6%**	**73.4%**										
1995	1	58.7%	41.3%	**21.1%**	15.8%	15.8%	21.1%	5.3%	5.3%	5.3%	10.5%	0.0%	0.0%
1995	2	37.0%	63.0%	24.1%	**20.7%**	10.3%	10.3%	3.4%	10.3%	3.4%	3.4%	13.8%	0.0%
1995	3	39.1%	60.9%	10.7%	14.3%	**14.3%**	17.9%	10.7%	10.7%	3.6%	14.3%	3.6%	0.0%
1995	4	42.6%	57.4%	0.0%	3.7%	7.4%	**14.8%**	25.9%	11.1%	22.2%	11.1%	0.0%	3.7%
1995	5	23.9%	76.1%	0.0%	0.0%	8.6%	20.0%	**22.9%**	14.3%	8.6%	25.7%	0.0%	0.0%
1995	6	23.9%	76.1%	0.0%	0.0%	2.9%	5.7%	14.3%	**22.9%**	34.3%	17.1%	2.9%	0.0%
1995	7	23.4%	76.6%	0.0%	0.0%	0.0%	8.3%	2.8%	11.1%	**30.6%**	22.2%	22.2%	2.8%
1995	8	28.3%	71.7%	0.0%	0.0%	0.0%	0.0%	3.0%	9.1%	15.2%	**33.3%**	36.4%	3.0%
1995	9	13.0%	87.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	10.0%	**52.5%**	35.0%
1995	10	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	10.6%	**87.2%**
	Average	**29.0%**	**71.0%**										

Notes:

Deciles are determined by total assets under management. Decile 10 represents the largest complexes.

Size deciles are recalculated in 2004 using all funds in existence.

A complex is deemed to have survived if it has positive net assets in 2004. The dataset does not distinguish between complexes that were liquidated and those that were merged into other complexes.

Source:

Strategic Insight (Simfund)

Table 12

Dispersion of Expense Ratios by Morningstar Category for Equity Mutual Funds

2004

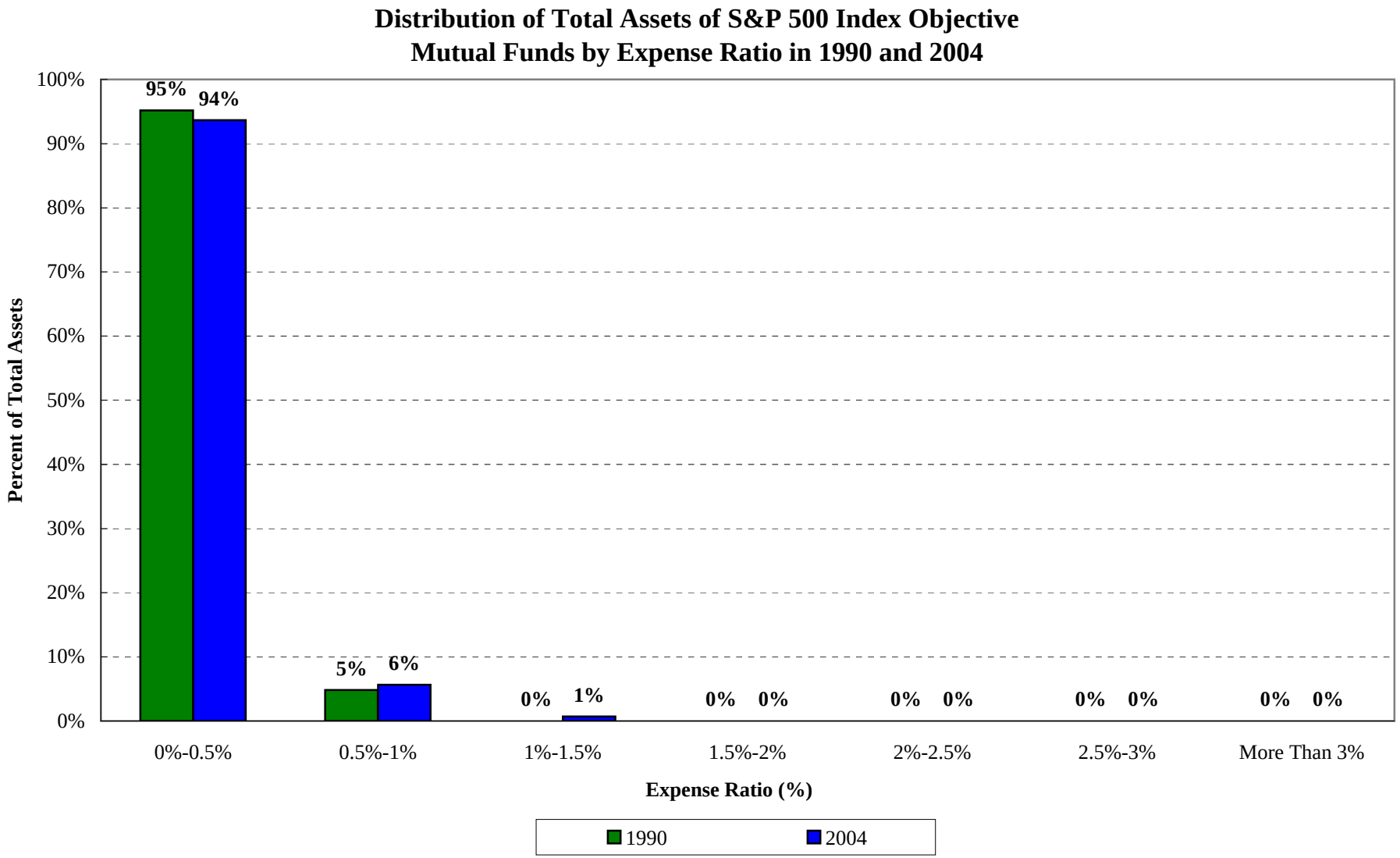
Morningstar Category	N	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile	75th Percentile to 25th Percentile Ratio	90th Percentile to 10th Percentile Ratio
Large Blend	1,067	0.48%	0.88%	1.26%	1.87%	2.11%	2.12	4.37
Large Growth	1,071	0.85%	1.11%	1.49%	1.99%	2.26%	1.80	2.65
Large Value	867	0.75%	1.00%	1.34%	1.87%	2.11%	1.87	2.81
Mid-Cap Blend	291	0.70%	1.04%	1.40%	1.90%	2.21%	1.83	3.15
Mid-Cap Growth	652	1.00%	1.22%	1.56%	2.09%	2.31%	1.71	2.31
Mid-Cap Value	220	0.98%	1.20%	1.43%	1.98%	2.15%	1.64	2.19
Small Blend	335	0.75%	1.07%	1.39%	1.92%	2.28%	1.80	3.03
Small Growth	574	1.01%	1.27%	1.59%	2.12%	2.42%	1.68	2.38
Small Value	240	0.93%	1.16%	1.46%	2.01%	2.25%	1.73	2.43
Specialty	1,632	0.92%	1.21%	1.63%	2.09%	2.39%	1.73	2.60
International	1,497	1.01%	1.33%	1.75%	2.30%	2.64%	1.73	2.61
Other	167	0.82%	1.14%	1.53%	2.16%	2.56%	1.90	3.12
[1] S&P 500 Index Objective Funds	58	0.15%	0.23%	0.37%	0.57%	0.86%	2.51	5.88
Over All Equity Funds	**8,613**	**0.85%**	**1.15%**	**1.51%**	**2.03%**	**2.35%**	**1.77**	**2.77**

Note:

[1] The S&P 500 Index Objective is taken from Lipper. There is no S&P 500 Index Objective in the Morningstar categories.

Source:
Strategic Insight (Simfund)
Lipper (LANA)

Figure 2



Note: This analysis only includes funds in existence as of June 2005.
Source: Authors' calculations using Lipper (LANA)

Eric D. Roiter
Senior Vice President and General Counsel
Fidelity Management & Research Company
82 Devonshire Street
Boston, MA 02109-3614

March 10, 2004

Mr. Jonathan G. Katz
Secretary
U.S. Securities and Exchange Commission
450 5th Street, N.W.
Washington, DC 20549-0609

Re: File No. S7-03-04, Investment Company Governance, Release No. IC-26323 ("Release")

Dear Mr. Katz:

I am writing on behalf of Fidelity Investments to offer our views on the Commission's proposed mutual fund governance rules set forth in the Release. Our letter responds, in particular, to the Commission's proposal to require all mutual funds to be chaired by an independent director, regardless of the choice that independent directors, constituting a supermajority of a fund's board, would make if permitted to exercise their business judgment on behalf of fund shareholders. The Commission's proposal would compel a single result for all mutual funds, without regard to their origins, history, performance or the adviser's record of fealty and service to shareholders.

Fidelity, in the strongest terms, urges the Commission to refrain from adopting an independent chairman requirement that would reduce the very discretion and authority of independent directors that the Investment Company Act is founded upon and that the Commission has sought to strengthen through its rulemaking in recent years. Our reasons can be summarized as follows:

- Enhancing the fund board process, promoting effective deliberation and decision-making by independent directors and fostering their access to timely and relevant information can be better accomplished by other, more targeted means. These include conferring upon independent directors the authority, by separate vote, (i) to elect the board chairman annually, (ii) to approve the agenda for every board meeting and to add items to the agenda, (iii) to decide upon the structure, charter and membership of all board committees, and (iv) to chair all board committees.

- Other measures further strengthen the autonomy and authority of independent directors, including the proposal to require a supermajority of independent directors on a fund board. As a supermajority, independent directors will clearly be in a position to select the individual they believe is best suited to serve as chairman, based solely on

consideration of fund shareholders' interests. We believe that the Commission should entrust this decision to the independent directors, just as these directors are entrusted to make other key decisions involving shareholders' interests.

- A recent study commissioned by Fidelity has found empirical evidence that strongly indicates that neither superior investment performance nor lower expenses for shareholders is advanced by having independent directors serve as fund board chairs. To the contrary, the evidence supports the conclusion that funds with independent chairs have underperformed, in a statistically significant way, funds chaired by interested directors. We are submitting this study for the Commission's consideration. If the Commission staff has undertaken similar empirical research in connection with the independent chairman requirement, we respectfully suggest that the Commission make the staff's research available to the public and allow for public comment.

- The Commission should refrain from adopting an unnecessary fund governance rule that would have broader implications for all public companies.

Enhancing the Board Process

Fidelity fully supports the principle that independent directors, assigned key roles in mutual fund governance, must be empowered to carry out their responsibilities free from undue pressure or influence from the fund's adviser. This principle extends not only to the conduct of board meetings but to all aspects of the independent directors' oversight of the performance and services provided by a fund's adviser and affiliates.

With regard to the independent chairman proposal -- a proposal that would compel a fundamental departure from prevailing governance practices in the mutual fund industry -- we respectfully submit that the rationale put forward by the Commission in the Release is quite cursory. In a 31-page release, the Commission (after an introductory paragraph) devotes two brief paragraphs to explain its reasons in support of the proposal. The reasons advanced are that (i) an interested chairman can control the board's agenda, have a substantial influence on the "culture" of the boardroom and chill meaningful dialogue and (ii) an independent chairman may promote a boardroom culture more conducive to decisions that favor long-term interests of fund shareholders and may lead to more effective negotiations with the adviser.

This rationale, in our view, borders on speculation and paints with an overly broad brush. It is a truism that some boards may be better served if chaired by an individual who happens to be an independent director. It is far from clear, however, that an independent chair is preferable for all fund boards or even for most fund boards. In any event, the Commission need not impose this procrustean governance rule on all mutual funds throughout the industry. Strengthening the board process can be readily achieved through more focused measures. We commend the SEC for identifying these in the Release, namely:

(1) Requiring independent directors to appoint a "lead" director for their group to chair separate meetings of the independent directors, act as their spokesperson and supervise independent fund counsel;

(2) Requiring some or all board committees to be chaired by an independent director; and

(3) Requiring the board and the independent directors, by separate vote, to elect the board chairman annually.

These measures are far preferable to a "one size fits all" independent chairman requirement for the mutual fund industry. We would also suggest that the Commission, in lieu of such rule, consider requiring funds to comply with the following:

(1) Independent directors should have sole authority to set their own compensation;

(2) Independent directors should separately vote to approve the agenda for every board meeting, should have the authority to add any matter to the agenda; and

(3) Independent directors should have authority to direct the adviser to provide for their consideration at a board meeting any information that is relevant to their decision-making.

These measures, in our view, ensure that independent directors will exercise separate authority over those aspects of board governance – the setting of agendas, the creation of board committees, and assignment to board committees and controlling the flow of information to the board – that bear directly upon the effective functioning of fund boards. They are certainly sufficient to ensure that individuals serving as independent directors, selected and nominated solely by incumbent independent directors, will be able to discharge their oversight role on behalf of shareholders without undue influence from the advisor, regardless of whom the independent directors select to serve as board chairman. Indeed, if the independent directors of a fund board fall short of their oversight responsibilities notwithstanding all of these safeguards, it is extremely difficult to understand how that shortcoming could have been avoided if only they had been required to choose one of their own to serve as board chairman.

Our proposed approach is, in fact, entirely consistent with that taken by the 1940 Act and by the Commission in its rulemaking over the years. There has been much heated rhetoric over the asserted conflicting roles of an interested chairman with regard to a fund board's annual approval of the adviser's management contract. The question is typically posed "How can an interested chairman effectively negotiate with himself?" The short answer is, of course, that the 1940 Act already resolves this issue. The Act requires affirmative approval not only by a fund's board but also the separate approval by the fund's independent directors. No interested director, whether or not serving as board chairman, can take part in that second vote. The same is true of other key decisions under the 1940 Act or Commission rules, including, for example, approval of principal underwriting agreements, Rule 12b-1 plans, multi-class plans under Rule 18f-3, procedures permitting an adviser's brokerage affiliate to place a fund's portfolio trades, and procedures permitting a fund to purchase securities in a public offering from a syndicate in which the adviser's affiliate is a member. With all the responsibility that the 1940 Act and rules already entrust to independent directors to act in the best interests of fund shareholders, why should the Commission curtail the exercise of judgment by these very directors in choosing a chairman of the fund board?

While we certainly do not suggest that every board be chaired by an interested chairman, it seems manifestly clear to us that in many instances a fund's independent directors would be

exercising sound business judgment if they were to select, from among all the directors on the board, a member of the adviser's management to serve as board chairman. Independent directors may well conclude that an interested chair can promote informed, efficient and deliberative board meetings by drawing upon his or her broad expertise and experience in the mutual fund industry. This need not foreclose, in the least, independent directors from acting effectively as a separate decision-making group or from performing their oversight responsibilities in a rigorous and thorough manner.

Indeed, we believe that independent directors, at least at certain fund groups, can have a preference for an interested chairman and can reasonably conclude that the best interests of fund shareholders are promoted by having an interested chairman. This is so when independent directors rightly perceive that an individual brings considerable expertise to the performance of his or her responsibilities, has a strong commitment to serving fund shareholders, and has demonstrated the high ethical standards required of any fiduciary. The Commission should not, by rule, prevent independent directors from exercising their own judgment on these issues.

Other Proposed Measures to Strengthen the Effectiveness of Independent Directors Make the Independent Chairman Rule Unnecessary

The Release asks whether the proposed requirement for a supermajority of independent directors on every fund board renders the independent chairman proposal unnecessary. In our view, the answer, quite clearly, is yes. With a supermajority, independent directors will certainly have the authority to select an independent chairman if they believe this would best serve the interests of a fund's shareholders. More broadly, independent directors, acting as a supermajority, will be in a position to determine the outcome of any matter put to a board vote and can effectively control all aspects of the board process, including the scheduling and duration of meetings, the setting of the agenda, the flow of information prior to and during board meetings, and the structure and membership of board committees. The autonomy of independent directors will be reinforced by the proposed requirement that they meet in executive session at least quarterly.

Of course, the measures proposed in the Release to strengthen the role of independent directors build upon a foundation of current safeguards. These include the statutory responsibility of independent directors, voting as a separate group, to approve the adviser's management contract and the fund's principal underwriting agreement. The existing authority of independent directors to select and nominate their successors provides an additional safeguard to allow independent directors to perform their oversight role without undue influence from the adviser. Recent rule changes ensuring the authority of independent directors to retain independent legal counsel and to approve the appointment of a fund's chief compliance officer who reports directly to the board further reinforce the autonomy of independent directors.

In sum, we see no purpose being served by depriving independent directors of the ability to reach informed judgments on the selection of a board chairman from among any member of the board, whether the individual happens to be an independent director or an interested director.

Empirical Data Strongly Indicate No Positive Correlation Between Independent Chair Funds and Either Better Investment Performance or Lower Expenses

At the Commission's hearing to consider the pending fund governance proposals, two members of the Commission expressed an interest in considering empirical data that might indicate whether shareholders of funds with independent chairs have fared better than shareholders of funds led by interested chairs. The staff indicated at the meeting that they had not reviewed any such data and were unaware that any studies had been undertaken.[1]

Following the Commission's meeting, Fidelity engaged two respected fund industry consultants to conduct a study. We include their report, the Bobroff-Mack Report, as an attachment to this comment letter.[2] The results strongly indicate that there is no positive correlation between independently chaired funds and either better investment performance or lower expenses when compared to funds with interested chairs. Indeed, the conclusions reached in the report are quite to the contrary, namely:

> (1) With regard to investment performance, "[o]n each of several historical performance measures, independent chair funds have not performed as well as those having management chairs. For example, using Morningstar's fund rankings within style-based peer groups, independent chair funds on average rank in the 53rd percentile (100=best) over the past three years, while management chair funds on average rank in the 58th percentile. Over ten years the ranking difference is more pronounced, with the independent chair funds averaging in the 48th percentile versus the 59th percentile for the management chair funds. For these and the other performance comparisons included in this study, the differences were statistically significant."[3]
>
> (2) With regard to expenses, the Bobroff-Mack Report found that "[t]he expense examination showed no significant positive correlation between independent chair funds and lower expenses. Independent chair funds were found to have competitive to high expense levels, depending on the way expenses are measured and aggregated. For example, when distribution-related charges are excluded and equal-weighted averaging is used, independent chair funds have annual expense ratios which average 0.01% per year lower than comparable management chair funds, which is not a statistically significant difference. When expenses are asset-weighted, independent chair funds have 0.16% higher expenses than management chair funds."[4]

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[1] The Release cites research that suggests that "funds with a higher proportion of independent directors are more effective" and may achieve, among other things, lower expense ratios. *Release* at n. 22. It is highly probable that the group of funds with a higher proportion of independent directors included, among other funds, the Fidelity Funds. These are the very fund groups, of course, that have boards chaired by interested chairs, not independent chairs. Accordingly, not only does this research lend no support to the proposal to require all funds to have independent chairs, it serves as support *against* any such requirement.

[2] Geoffrey H. Bobroff and Thomas H. Mack, *"Assessing the Significance of Mutual Fund Board Independent Chairs," (March 10, 2004)* (the "Bobroff-Mack Report"*).* We note that the Bobroff-Mack Report, which to our knowledge is the first analysis of this subject, was conducted under significant time constraints in order to meet the deadline for comments set forth in the Release.

[3] Bobroff-Mack Report at 1.

[4] *Id*. at 1.

In our view, the results of this study raise serious questions regarding the wisdom of forcing independent chairs upon funds that have delivered superior performance and lower expenses to their shareholders. At the Commission's public meeting in January, the Commission staff acknowledged that they were not aware of any empirical data attempting to compare independent chaired funds and interested chair funds from the standpoint of performance or expenses. There was also some discussion that the Commission could consider "anecdotal evidence" in reaching its final position on the independent chairman proposal.

We respectfully suggest that, to the extent that anecdotal evidence is considered to have any relevance at all, it certainly presents an unpersuasive case for the Commission's proposal, given the number of fund groups with independent chairmen that have been embroiled or implicated in the wrongdoings that have been exposed over the last six months. Second, empirical data is generally preferable to anecdotal evidence in the formulation of public policy. The empirical data that we submit for the Commission's careful consideration strongly caution against adoption of a proposal to require that all fund boards be chaired by an independent director without regard to the particular facts and circumstances that might apply to any given fund or fund group. Indeed, in some instances (and perhaps in many instances), independent directors could rightly come to the view that fund shareholders can be better served by a board chaired by an individual who happens to be an interested director.

At the Commission's open meeting, Commissioner Glassman asked the staff to develop empirical data comparing independent chair funds and interested chair funds to assist the Commission in reaching a final decision on whether to adopt the independent chairman requirement. Other Commissioners expressed an interest in evaluating this data. If such a review has been undertaken, then we respectfully suggest that the Commission should publish this data and invite public comment. Indeed, this would appear in keeping with the Administrative Procedure Act's requirements to afford interested persons adequate notice and a meaningful opportunity to comment on an agency's proposed rules.[5]

Broader Implications of an Independent Chairman Requirement

It is noteworthy that the Directors' Committee of the ICI has endorsed an approach very similar to ours, and by its letter of December 31, 2003, has urged the Commission to preserve the ability of fund boards to exercise the full range of their business judgment in choosing a board chairman. Members of the Directors' Committee who are independent directors far outnumber those who are interested directors.

Our views, in fact, are fully consistent with the Commission's own position, set forth in the testimony of Paul Roye, Director of the Division of Investment Management in testimony before the House Financial Services Subcommittee on Capital Markets on June 18, 2003. Speaking for the

[5] See *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35 (D.C. Cir.), *cert. denied*, 434 U.S. 829, *reh'g denied*, 434 U.S. 988 (1977) ("[T]he notice required by the APA, or information subsequently supplied to the public, must disclose in detail the thinking that has animated the form of a proposed rule and the data upon which that rule is based" and "an agency proposing informal rulemaking has an obligation to make its views known to the public in a concrete and focused form so as to make criticism or formulation of alternatives possible.") See also *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir.), *cert. denied*, 423 U.S. 1025, *reh'g denied* 423 U.S. 1092 (1976) ("It is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, critical degree, [sic.] is known only to the agency."); *Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, (9th Cir. 1995) ("Opportunity for public comment is particularly crucial when the accuracy of important material in the record is in question.")

Commission, Mr. Roye pointedly did *not* endorse the provision of H.R. 2420 which would have deprived fund boards of authority to select an interested director to serve as chairman. In light of the bill's requirement that at least two-thirds of a board consist of independent directors, he noted that this would empower independent directors to select one of their own as board chairman if they so desire.[6] We also believe Mr. Roye was correct in noting that a supermajority requirement for independent directors would ensure that those directors would be free to exercise their business judgment regarding the selection of any director to serve as board chairman. We submit that none of the well-publicized problems in the mutual fund industry that have been brought to light in the last six months negates the correctness of the Commission's position expressed last June.

We also urge the Commission to consider the implications for the rest of Corporate America that would flow from a governmental fiat that mutual fund boards, without exception, be chaired by an independent director -- regardless of whether a fund's directors, left to their own business judgment, might conclude that the interests of shareholders would be best served by an interested director serving as chairman. Corporate governance experts express widely differing views on the merits (and demerits) of an independent director chairing corporate boards.

Professor Charles Elson, Director of the Center for Corporate Governance at the University of Delaware, College of Business and Economics, has expressed serious reservations over the "non-executive" chairman (even in the absence of a governmental rule that would require this result):

> "[T]he problem with a non-executive chairman is that you create two leadership points. You effectively create two power centers. I think it becomes very confusing within the organization as to who reports to whom, and I think it creates, effectively, two chiefs…. I don't think it works particularly well in the UK. They have had that system for years, and I don't see UK companies being held up as paragons of corporate governance or performance owing to that structure."[7]

We are aware that mutual funds are unique in that their operations are externally managed by investment advisers and other service providers, and that this structure gives rise to potential and actual conflicts of interest. Mutual fund boards, and the independent directors of those boards, have singular responsibilities under the Investment Company Act to act for the benefit of fund shareholders in resolving these conflicts of interest.

To assume, however, that conflicts of interest arising within operating companies somehow pose lesser risks to shareholders or are less acute than those faced in the fund industry, simply because operating companies have "internal" management is to ignore the history of corporate

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[6] Testimony of Paul F. Roye, Director, Division of Investment Management, U.S. Securities and Exchange Commission, Concerning The Mutual Funds Integrity and Fee Transparency Act of 2003, H.R. 2420, Before the House Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, Committee on Financial Services (June 18, 2003) at 18:

> "We agree that there may be benefits to having an independent director serve as the board chairman, such as the ability to control boardroom agendas and manage the flow of information to members of the board. We would note, however, that by increasing the representation of independent directors on fund boards, the Bill clearly would empower independent directors to select one of their own as chairman **and to use their judgment as to who should serve as chairman**." (emphasis added)

[7] Directorship, "A Director-Professor Speaks Out," (Nov. 1998 – January 1999) at 1-2.

governance in this country -- a history punctuated by the debacles of recent years, such as Enron, WorldCom and Tyco, that have imposed heavy losses on mutual funds and other investors.

We submit that there is no principled distinction between mutual funds and other companies on the question of whether board directors should be free to exercise their informed business judgment to select any member of the board to serve as its chairman. It is unwise public policy for the mutual fund industry and unwise for every other U.S. industry as well to impose a "one size fits all" independent chairman requirement. If the Commission deprives fund boards of the discretion to choose their chairmen, this will have unmistakable implications for the corporate boards of all other American companies.

We hasten to acknowledge that fund directors might well decide upon an independent director to serve as board chairman in particular cases, as they have already done in a number of fund complexes. We also acknowledge the possibility that the selection of independent directors to serve as board chairmen may emerge over time as the norm in the fund industry. If this reflects the informed business judgment of fund boards, and their independent directors, this is as it should be. Fund boards, not the government, should make these decisions.

On the other hand, for over half a century, the Fidelity Funds Board has reached the informed judgment that the Funds' shareholders have been well-served through the strong leadership and vision of the Johnson family, the founders of the Fidelity Funds. In recognition of this, the Board chose as its chairman, Edward C. Johnson 2nd and has chosen to be led by its current chairman, Edward C. Johnson 3rd. It is open to question whether all of the innovations that have advanced the interests of Fidelity Funds' shareholders over so many years, including the enormous commitment to the use of technology, could have been achieved if the Trustees of the Fidelity Funds had been prohibited from exercising their judgment in choosing the Board's chairman. We respectfully suggest to the Commission that it not deprive the Fidelity Funds Board – or the board of any other fund complex – of the authority, and responsibility, of choosing its chair.

* * * *

We appreciate the opportunity to comment on the Commission's most recent fund governance proposals. In summary, we are generally supportive of those proposals but strongly urge the Commission to reconsider its proposal to curtail independent directors from exercising the full range of their business judgment in selecting who shall serve as chairman of a fund's board.

Sincerely,

Eric D. Roiter

Attachment

cc: Hon. William H. Donaldson
Chairman of the Securities and Exchange Commission

Hon. Paul Atkins
Commissioner

Hon. Roel Campos
Commissioner

Hon. Cynthia A. Glassman
Commissioner

Hon. Harvey Goldschmid
Commissioner

Division of Investment Management

Paul Roye
Director

Cynthia Fornelli
Deputy Director

Robert Plaze
Associate Director

Douglas Scheidt
Chief Counsel

Attachment

Assessing the Significance of Mutual Fund Board Independent Chairs

A study for Fidelity Investments by
Geoffrey H. Bobroff and Thomas H. Mack
March 10, 2004

Executive Summary

Fidelity Investments commissioned this study to see whether mutual funds which have independent, disinterested directors serving as board chairs have provided shareholders with better performance or lower expenses than funds with interested or management-affiliated board chairs. The study encompassed all retail-oriented fund complexes with $10 billion or more in long-term assets, which account for 83% of industry long-term fund assets and included such analysis as was appropriate and practical given the time available. Data from Morningstar, Lipper and Strategic Insight were utilized, which are widely used and respected industry data sources. The key findings were as follows:

> On each of several historical performance measures, independent chair funds have not performed as well as those having management chairs. For example, using Morningstar's fund rankings within style-based peer groups, independent chair funds on average rank in the 53rd percentile (100=best) over the past three years, while management chair funds on average rank in the 58th percentile. Over ten years the ranking difference is more pronounced, with the independent chair funds averaging in the 48th percentile versus the 59th percentile for the management chair funds. For these and the other performance comparisons included in this study, the differences were statistically significant.
>
> The expense examination showed no significant positive correlation between independent chair funds and lower expenses. Independent chair funds were found to have competitive to high expense levels, depending on the way expenses are measured and aggregated. For example, when distribution-related charges are excluded and equal-weighted averaging is used, independent chair funds have annual expense ratios which average 0.01% per year lower than comparable management chair funds, which is not a statistically significant difference. When expenses are asset-weighted, independent chair funds have 0.16% higher expenses than management chair funds.

While there are differences other than chair type between the independent chair and management chair funds that may have played a role in these results, we did not find evidence of better performance or lower expenses for the independent chair funds. Rather, we found that independent chair funds have not performed as well as management chair funds and that independent chair funds' expenses are competitive to high depending on how expenses are measured and compared.

The following sections summarize the key performance and expense results, discuss the analytical approach and methodology, and then provide detailed results in the Appendix.

Introduction

The purpose of this study was to examine whether mutual funds with independent board chairs have provided their shareholders with lower fund expenses or higher fund performance than other comparable funds. To accomplish the study, expense and performance data for the retail-oriented fund families with more than $10 billion in long-term fund assets was assembled and used to compare results for funds having an independent director as the board chair (independent chair funds) with those for other funds (management chair funds).

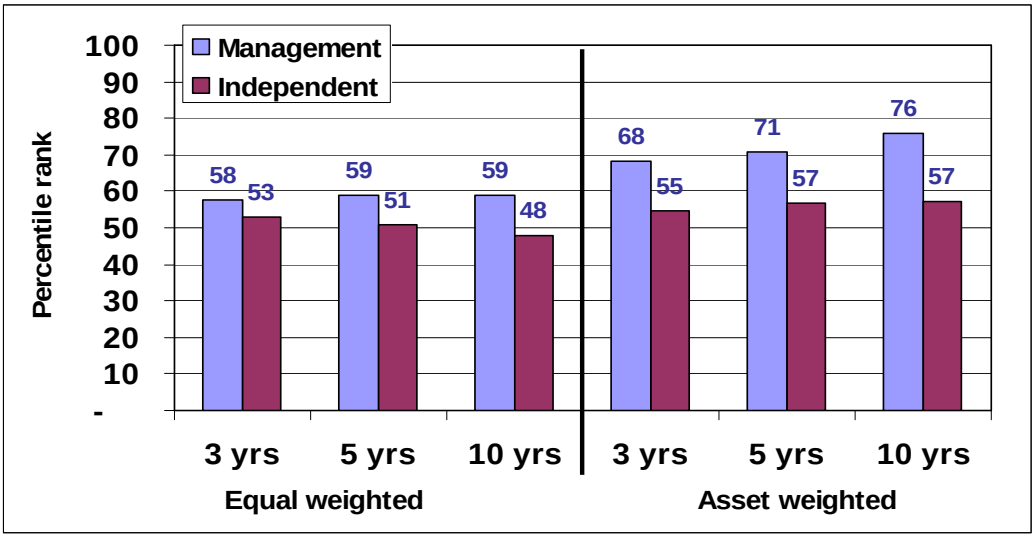
The study focused on a set of larger fund families rather than the total universe of funds in order to facilitate determining which of the subject funds had independent chairs, as well as to allow a more detailed review of fund data and classifications than would be practical working with all funds. In addition, this approach provides for reviewing results family-by-family, so that the distribution approaches and other unique characteristics of fund families can be considered in interpreting the results. Other key elements of the methodology are discussed beginning on page 6.

Performance Analysis

The performance analysis results are summarized in Exhibits 1 and 2, which show average Morningstar performance rankings and star ratings for independent and management chair funds. As shown in these exhibits, there is no positive correlation between independent chair funds and better performance. Rather, funds with independent chairs have underperformed those with management chairs, and the differences are statistically significant.

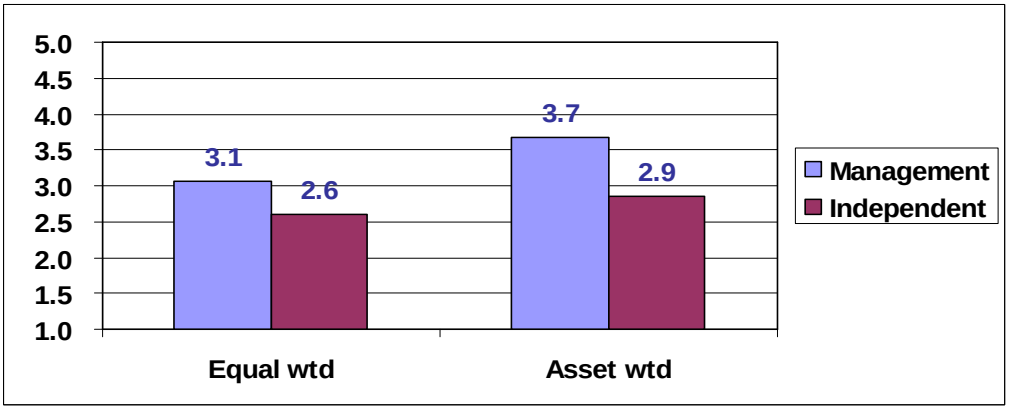
> Over 3, 5 and 10 year periods, the independent chair funds averaged (equal-weighted basis) 5-11 percentage points lower rankings within Morningstar categories than management chair funds. Statistical tests, which are discussed in the appendix, show that these differences are significant. While equal-weighting is the more usual way of assessing aggregate performance, the asset-weighted figures do express an important "bottom line" of what was experienced by the average dollar invested. When the rankings are asset-weighted, the differences are even larger, with management chair funds having average rankings 13-19 percentage points better than for independent chair funds. For both the equal- and asset-weighted figures, the largest differences were noted for the longest (10-year) time period examined.

Exhibit 1: Average Fund Rankings within Morningstar Categories
by type of board chair, periods ended December 31, 2003, 100 = best



Similarly, management chair funds have higher average Morningstar star ratings. On a 1-5 scale, management chair funds average 0.5 more Morningstar "stars" than the independent chair funds, and again the differences are statistically significant. And the difference is larger if the data are asset-weighted, with the management chair funds averaging 0.8 stars more than for the independent chair funds.

Exhibit 2: Average Morningstar Star Ratings vs. Type of Board Chair
as of December 31, 2003, 5 = best



Morningstar's star rating methodology factors in the impact of sales loads on returns for funds with loads. While this may be helpful to investors that pay

loads, it results in a potential bias in this study against independent chair funds, since a higher percentage of these funds are sold with loads than management chair funds. However, as discussed in the Appendix, tests indicate that the direction and significance of the star rating differences reported above have not been affected by this bias.

For convenience and ease of understanding, we have presented average values for the Morningstar rankings and ratings; the appendix presents the actual distributions of the rankings and ratings in categories and presents appropriate statistical tests on those distributions.

An additional test, independent of Morningstar rankings and star ratings, confirms the results above. A returns-based style analysis was performed on each fund having 5 years of monthly returns available and was used to determine for each fund a custom blend of market indexes that best matches the fund's style. Then, for each fund, a risk-adjusted excess return was calculated. Risk-adjusted excess return, also known as alpha, measures the extent to which a fund performed better or worse than the benchmark, after adjusting for risk. The risk-adjusted excess returns show a higher average return for management chair funds than independent chair funds, and once again the results are statistically significant. Please see the appendix for more details.

Of course expenses have a direct impact on performance, but this does not appear to be a significant factor here. The equally-weighted alpha average, which is an annual performance percentage figure, is 0.76% higher for the management chair funds than the independent chair funds, while as discussed in the next section the equally-weighted total expense averages for these two groups differ by only 0.05% -- a small figure compared with the performance difference. The degree of disparity allows us to conclude that the difference in returns is not attributable to the differences in expenses.

Why independent chair funds have performed less well than management chair funds is an interesting and challenging question. Apart from having different types of board chairs, the two groups of funds have other important differences that may have impacted performance results:

The independent chair fund groups are mostly bank-based, sales force oriented fund groups, which distribute their funds importantly through the banks' own trust departments and brokerage arms. In contrast, the management chair fund groups are mostly so-called "wholesale" firms: sales force oriented groups that sell mainly through third-party broker-dealers and other distributors. It is possible that differences in the types of clients served (for example, being more or less conservative) or other distribution-related factors could have influenced performance results. We do note that both the Morningstar star ratings and the alpha figures take into account investment risk and therefore should fairly compare riskier vs. more conservative investment approaches.

For the reasons discussed earlier we have focused on the larger fund groups, and the independent chair funds and fund groups tend to be smaller than the other firms. While there are independent chair groups dispersed across the size range in the study, their average size is about half that of the others ($38 billion vs. $80 billion). Therefore, as it happens the independent chair firms are being compared against mostly larger firms, which by definition have been more successful in asset gathering, which may be because they have produced particularly good investment performance.

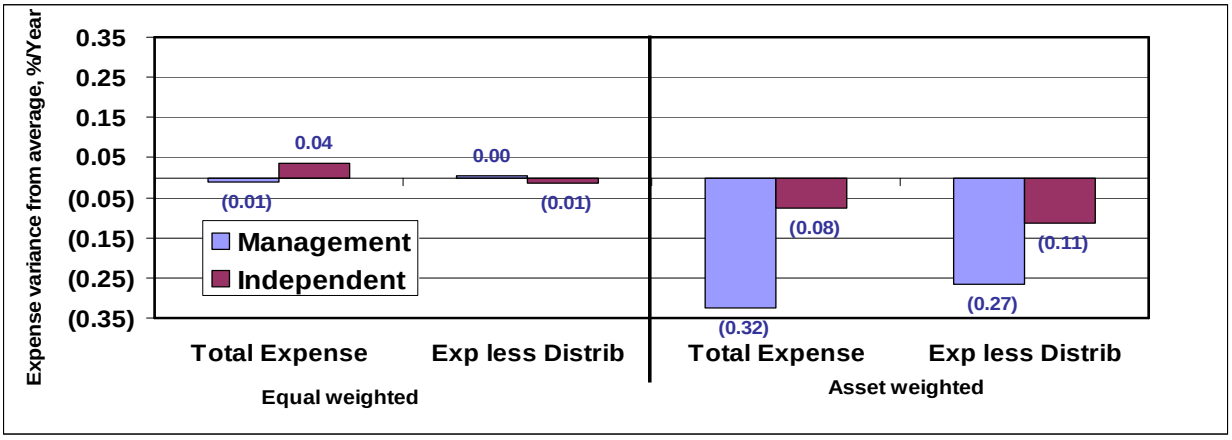
Expense Analysis

Exhibit 3 summarizes the expense analysis results, showing equal- and asset-weighted expense averages, including and excluding ongoing distribution related expenses. The results are expressed as the number of percentage points that annual expenses are on average better or worse than peers. The expense analysis comparisons tend in favor of the management chair funds, but the results are less clear than with the performance results, and they differ considerably depending on what expense measure is used.

Using the total expense ratio, the independent chair funds' expenses vs. peers have an equal-weighted average of about .05% more than for the management chair funds, and this difference is statistically significant. The difference is much larger (0.24%) if the data are asset-weighted.

Using expenses excluding distribution expense, the independent chair funds have a 0.01% lower average expense ratio, which is not a statistically significant difference. However, when the data are asset-weighted, the independent chair funds have a considerably higher expense average, 0.16% above those of the management chair funds.

Exhibit 3: Expenses (Better)/Worse than Peer Averages vs. Type of Board Chair



And so the interpretation of these results depends importantly on what measure is used:

Regarding total expenses vs. expenses less distribution, since load and no-load funds are being compared, expenses less distribution seems the better choice. This is because distribution-related fund expense charges (12b-1 fees and service fees) of load funds are used to compensate financial advisors and are in that sense the equivalent of sales charges, which of course do not generally exist for no-load funds. However, there are some no-load funds which have 12b-1 fees that are not used to compensate advisors but rather to defray other distribution expenses. In addition, it is increasingly common for load funds to use 12b-1 fees to pay for non-advisor-related distribution services. Therefore, while expenses less distribution may be the better single measure, total expenses are also presented.

Regarding equal- vs. asset-weighted figures, both deserve consideration. The asset-weighted figures do present the "bottom line" for the average dollar invested, and they also relate to the total dollars fund shareholders pay to fund sponsors and others for services. However, the asset-weighted averages tend to be dominated by a few of the largest, low-expense complexes and in turn their largest funds. The equal-weighted figures avoid this problem, but they can be distorted by small, high-cost funds inflating the averages.

Based on the discussion above, there is a mixed picture, with the independent chair funds having expense levels that are competitive to high vs. management chair funds, depending on how the comparisons are emphasized. To the extent that the independent chair funds have higher expense ratios, the fact that their fund families are among the smaller complexes included would likely be a factor; larger complexes generally have the advantage of lower expenses.

Discussion of Methodology

The key elements of the study's methodology are summarized below; please see the Appendix for further details.

The Strategic Insight Simfund mutual fund database, a widely used source of fund industry competitive information, was the principal source for identifying and categorizing fund families and funds. Using this database, all fund complexes with $10 billion or more in long-term, open-end fund assets as of December 31, 2003 were identified – 68 in all. To allow meaningful expense comparisons, the 55 of these complexes which have a significant retail (sales force and/or direct marketed), active management fund business and that offer industry-standard retail load or no-load pricing were selected for the analysis. Two of these complexes (Fidelity and Dreyfus) were separated into sales force and direct market product lines, so there are a total of 57 fund families included, as listed in Exhibit 4.

To determine which of these mutual fund groups operates with an independent chair or a management chair, we reviewed various documents on file with the SEC or available from each fund group. We examined as a minimum the latest

Statements of Additional Information and Annual Reports for sample funds. We were able to determine whether a group had a single board or multiple boards from filing documents, and where more than one board existed within a fund group we examined the documents covering each board. Based on this review, each of the 57 families has been identified as either an "independent chair" or "management chair" family, based on all or substantially all of its funds having an independent board chair, or not. On this basis, 14 of the 57 fund families have independent chairs, and 43 have management chairs. In making these determinations we did not consider recent chair type changes (e.g. Strong), which would not have impacted historical performance or expenses. While there has been some consolidation of fund boards in recent years, to the best of our knowledge the type of board chair for each of these complexes has been substantially the same as reported for at least ten years. However, a limitation of the study is that there will be funds included in a family's historical data which operated in a different board chair setting at an earlier time. For example, Wells Fargo (an independent chair complex) has acquired several small fund complexes over the years, which generally had management-affiliated chairs prior to their acquisition; by convention, industry data sources include this data under the new family, and it would be impractical to segregate this information without a great deal more time and research. Exhibit 4 also lists the chair designations.

Nine of the 14 groups with independent chairs are affiliated with a banking institution, reflecting the earlier banking laws (Glass-Steagall), which prohibited a banking institution from sponsoring a fund family. Most of these bank-based fund families were created through conversion of common trust funds or other pooled fiduciary accounts. The other five fund groups operating with independent chairs moved to that status in some cases occasioned by transactions involving the sale or control of the management companies. Two of these non-bank-affiliated groups have operated with independent chairman for over thirty years.

For each fund family, a single pricing format or share class was chosen for both the expense and performance analysis. This was the "A" or front load class for sales force funds and the principal retail no-load class for direct marketed funds, with a minimum investment of $10,000 or less required for inclusion. Thus, while a given fund might have a number of share classes, it is represented in the analysis by a single class, selected to be as comparable as possible across the funds included. Based on availability of data, a total of 2,101 funds were included in one or more performance comparisons, and 2,184 funds were included in the expense analysis.

Exhibit 4: Fund Complexes Included in Analysis

Assets in $mm, long-term open-end funds as of December 31, 2003

Type of Chair	Complex	Total Fund Assets	Included in analysis Assets	Funds	Primary Method of Distribution
Management	Vanguard	586,842	546,352	75	Direct Market
Management	Fidelity-Direct	534,282	505,251	149	Direct Market
Management	American Funds	485,146	485,001	26	Sales Force
Management	Franklin Templeton	191,986	185,247	100	Sales Force
Management	PIMCO Funds	142,131	134,499	51	Sales Force
Management	T Rowe Price	107,183	104,536	72	Direct Market
Management	Janus	82,025	71,503	21	Direct Market
Management	AIM Investments	78,828	75,737	62	Sales Force
Management	MFS	76,427	75,415	61	Sales Force
Management	American Century	70,276	70,276	54	Direct Market
Management	Scudder	64,365	53,284	65	Sales Force
Management	Fidelity-Advisor	60,203	59,595	58	Sales Force
Management	Citigroup Ast Mgmt	58,777	47,225	57	Sales Force
Management	Merrill Lynch	57,189	55,570	58	Sales Force
Management	Van Kampen	56,072	53,853	43	Sales Force
Management	AllianceBernstein	54,687	38,891	57	Sales Force
Management	Columbia Mgmt Adv	52,564	49,749	72	Sales Force
Management	Dodge & Cox	48,985	48,985	4	Direct Market
Management	Federated	43,688	30,936	37	Sales Force
Management	Morgan Stanley Adv	42,939	39,961	50	Sales Force
Management	Lord Abbett	39,599	38,697	27	Sales Force
Management	Eaton Vance	39,593	52,602	73	Sales Force
Management	Dreyfus-Direct	38,661	35,807	58	Direct Market
Management	Prudential Finl	32,304	26,278	49	Sales Force
Management	Davis-Selected Adv	30,222	24,146	7	Sales Force
Management	Pioneer	25,760	25,570	24	Sales Force
Management	Strong	22,518	17,592	42	Direct Market
Management	Waddell & Reed	22,175	22,175	45	Sales Force
Management	USAA	22,103	22,103	31	Direct Market
Management	The Hartford	20,388	20,388	33	Sales Force
Management	Dreyfus-Premier	17,068	17,056	68	Sales Force
Management	John Hancock	16,884	16,807	35	Sales Force
Management	New York Life	16,399	12,818	22	Sales Force
Management	ING Investments	15,962	15,962	60	Sales Force
Management	Artisan Partners	15,626	15,626	7	Direct Market
Management	Delaware	13,446	11,513	56	Sales Force
Management	NeubergerBerman	13,177	13,112	14	Direct Market
Management	Nuveen	12,285	12,285	36	Sales Force
Management	Calamos	12,077	12,077	8	Sales Force
Management	So.Eastrn/Longleaf	11,958	11,958	3	Direct Market
Management	Royce & Assoc	11,951	11,951	14	Direct Market
Management	First Eagle	11,063	11,063	5	Sales Force
Management	Thrivent Financial	10,280	10,181	25	Sales Force
Independent	Putnam	130,757	130,672	54	Sales Force
Independent	OppenheimerFunds	92,188	92,188	48	Sales Force
Independent	American Express	63,989	63,475	60	Sales Force
Independent	Evergreen Investmt	47,960	45,192	57	Sales Force
Independent	Banc One	39,561	39,561	36	Sales Force
Independent	Nations Funds	31,965	31,965	42	Sales Force
Independent	Goldman Sachs	26,357	24,088	34	Sales Force
Independent	Harris Associates	22,613	22,613	7	Direct Market
Independent	US Bancorp	21,981	21,981	37	Sales Force
Independent	Wells Fargo Bank	21,090	17,136	39	Sales Force
Independent	J P Morgan Funds	20,507	16,100	38	Sales Force
Independent	BlackRock	13,616	13,483	32	Sales Force
Independent	WM Advisors	10,656	10,656	15	Sales Force
Independent	Trusco Capital	10,403	9,760	24	Sales Force

For the expense analysis, each fund was classified into one of the 29 categories shown in Exhibit 5, which are based on a combination of Strategic Insight and Morningstar fund classifications and designed to make essential distinctions for expense analysis while keeping peer groups as large as possible. All the expense analysis is based on comparing each fund's expense figure with the average for all funds in its expense category, so that funds are compared only against relevant peers. Large-capitalization equity index funds are included and have their own category, but other index products are excluded. Funds in certain other specialized investment objectives (e.g. some single-country foreign equity funds) have been excluded due to small peer groups. The expense data draws on both Strategic Insight and Lipper Analytical to maximize coverage.

Exhibit 5: Listing of Expense Categories

Domestic Equity
- Balanced/Asset Allocation
- Convertibles
- Growth - Large Blend
- Growth - Large Growth
- Growth - Large Value
- Growth - Midcap
- Growth - Smallcap
- Index - Largecap
- Specialty
- Utility

Domestic Taxable Fixed Income
- Corporate Bond
- Government Bond
- High Yield
- Multi Sector Bond
- Short-term Bond

Tax Exempt Income
- National Muni Intermediate
- National Muni Long
- National Muni Short
- State Muni Intermediate
- State Muni Long

International/Global
- Emerging Markets
- Emerging Mkts Bonds
- Europe Stock
- Foreign Largecap Stock
- Foreign Small/Midcap Stock
- Multi-asset Global
- Pacific Stock
- World Bond
- World Stock

The expense analysis covers expenses with and without annual distribution-related (12b-1 and service) fees, but sales charges are not included. While load fund sales charges are important in assessing fund ownership costs over time, our main interest is in comparing costs across funds at a point in time, including both load and no-load funds, and including amortized sales charges would make load and no-load fund expenses less rather than more comparable. In addition, including sales charges would disfavor independent chair funds, nearly all of which are load funds. Finally, most major load fund suppliers indicate that a large but not-publicly-reported fraction of their A share sales are occurring in load-waived form – so that fund-level analysis including sales charge effects would be impractical.

Fund expenses were analyzed using the most recent data available. Mutual fund expenses are reported for each fund's fiscal year and are typically captured in databases with a 2-3 month delay from fiscal year-end. The actual expense figures were taken from the Lipper database and supplemented with Strategic Insight data where possible.

Performance analysis requires a finer set of categories than expense analysis to reflect investment style differences, and we have incorporated the widely used Morningstar performance rankings and risk-adjusted star ratings, which are based on comparisons across about 16,000 funds sorted into their 64 investment style-based categories. The performance rankings for the 3, 5 and 10 years ended December 31, 2003 are expressed as a simple percentile rank of a fund's performance within its category, presented here with 100 being best and 1 being worst *(Note to Morningstar users: for presentation purposes, the ranking scale has been reversed from Morningstar's practice)*. The star ratings, which range from 5 (best) to 1 (worst), use a complex methodology that takes into account both risk and return.

While all performance rating approaches have some limitations, discussed below, we believe the Morningstar rankings and star ratings provide a generally reasonable and unbiased performance picture, especially when averaged across many funds. In addition to the Morningstar figures, we have independently calculated and compared risk-adjusted returns against custom benchmarks for each fund.

It should be noted that the Morningstar rankings and star ratings are not necessarily true performance scales, in that for example having 5 stars compared with 4 may signify a greater or lesser performance benefit than having 4 stars compared with 3. However, they are widely used figures of merit which can be compared across types of funds, and we use them in averages for convenience of comparisons. The appendix includes more technical statistical tests that result in similar findings, thus validating the use of averages.

Both the expense and performance analyses use averages to summarize results. Averages are calculated across all of the funds of independent chair vs. management chair fund families, as well as for each fund family separately. The simple or equal-weighted averages indicate the expenses and performance of the average fund, while the asset-weighted averages are more appropriate when considering the expenses and performance experienced by the average dollar invested in the funds. The asset-weighted averages use portfolio-level assets (summed across all share classes), since the fund share class analyzed will generally reflect the performance and expense experience of the fund's other classes, except for distribution-related charges.

The averaging calculations are somewhat different for the performance and expense data. While the performance rankings and ratings can be directly combined across different types of funds, the expense data needs to be combined in a way that reflects the substantial expense level differences across the expense categories. That is, expense averages across different types of funds need to reflect that some types have higher expenses (such as international equity funds) than others (such as municipal bond funds). To deal with this, each fund's expense level is first expressed as a difference better or worse than the average expense level for its expense category. Then these differences are averaged to produce an overall better/worse-than-average figure for that fund family or group of funds.

This study was conducted under significant time constraints in order to meet a deadline for comments on rule changes proposed by the Securities Exchange Commission that would require all fund boards to be chaired by an independent director. These constraints limited the possibilities for further analysis beyond that described above, as well as the fund and fund complex research that could be accomplished and the range of complexes and funds that could be included. Within these constraints, we *did not find* that mutual funds with independent board chairs have provided their shareholders with lower fund expenses or higher fund performance than other comparable funds. Rather, we found that funds with independent board chair have not performed as well as those having management chairs and that independent chair funds have competitive to high expense levels, depending on the way expenses are measured and aggregated.

Appendix

This Appendix presents the detailed analytical results and associated statistics, covering first the fund coverage statistics and then the performance and expense analysis details.

Fund and Asset Coverage

For both the performance and expense analysis, long-term open-end fund portfolios of the target complexes were eligible to be included if they offered an industry-standard load (A share) or no-load retail share class, with an investment minimum of $10,000 or less, as reported in the Strategic Insight Simfund database as of December 31, 2003. This excluded any pure institutional funds but allowed funds that have both institutional and retail classes. A total of 2,437 funds with $3,728 billion in portfolio-level assets were eligible by these criteria, or 83% of all industry long-term open end fund assets.

We thought it important to identify each complex in the analysis with a distribution and pricing approach, and in the case of Fidelity and Dreyfus we separated their product lines into their direct and sales force distribution components. With other complexes, we excluded funds which did not conform to the firm's main distribution and pricing format.

Exhibit A-1 reports the number of funds and assets eligible for each complex and the funds and assets included in each performance calculation. To be included in a Morningstar ranking or rating calculation, the fund's representative load or no-load share class would need the required length of track record and to be covered in the Morningstar Principia database. For the alpha calculations, it was required that the representative class have five years of monthly returns available in this database. Overall, 86% of the eligible funds, representing 97% of the eligible fund assets were included in 3-year rankings and Star rating calculations, both of which require a minimum 3-year track record. The most common reason for funds not being included in the analysis was lack of a sufficient track record.

Exhibit A-2 reports coverage statistics for the expense analysis, beginning with the same base of eligible funds as for the performance analysis. To be included in the expense analysis a fund needed to have expense information available from either Lipper or Strategic Insight and also to meet certain investment classification criteria. Funds were excluded where we were unable to identify an appropriate peer group across the funds included – generally at least ten funds considered to be reasonably comparable for expense analysis purposes. Examples of funds so excluded include prime rate funds and certain single-country foreign equity funds. Most importantly, while large-capitalization equity index funds (which encompasses S&P 500 index funds) were included as an expense peer group, other types of index funds were excluded.

Exhibit A-1:

Performance Coverage Statistics
Assets in $mm

Type of		Total in analysis		Rank 3 yrs		Rank 5 yrs		Rank 10 yrs		Stars		Alpha	
Chair	Complex	Assets	Funds	Assets	Funds	Assets	Funds	Assets	Funds	Assets	Funds	Assets	Funds
Management	AIM Investments	75,737	62	75,215	53	72,240	43	58,568	28	75,215	53	56,174	31
Management	AllianceBernstein	38,891	57	34,478	41	33,157	37	30,518	25	34,478	41	33,157	37
Management	American Century	70,276	54	70,132	50	68,055	44	57,625	27	70,132	50	67,572	43
Management	American Funds	485,001	26	485,001	26	482,965	25	481,750	24	485,001	26	482,965	25
Management	Artisan Partners	15,626	7	14,949	4	14,949	4		-	14,949	4	14,949	4
Management	Calamos	12,077	8	12,037	6	11,856	5	11,745	4	12,037	6	11,856	5
Management	Citigroup Ast Mgmt	47,225	57	44,702	51	42,911	42	32,127	30	44,702	51	42,911	42
Management	Columbia Mgmt Adv	49,749	72	49,177	71	47,703	62	43,015	48	49,177	71	17,226	26
Management	Davis-Selected Adv	24,146	7	24,116	6	24,116	6	24,116	6	24,116	6	24,116	6
Management	Delaware	11,513	56	11,318	48	11,253	46	9,025	28	11,318	48	11,253	46
Management	Dodge & Cox	48,985	4	48,330	3	48,330	3	48,330	3	48,330	3	48,330	3
Management	Dreyfus-Direct	17,056	68	16,231	54	15,851	51	11,666	36	16,231	54	11,450	37
Management	Dreyfus-Premier	35,807	58	22,093	37	22,093	37	17,817	29	22,093	37	22,093	37
Management	Eaton Vance	52,602	73	32,904	61	31,414	57	13,193	47	32,904	61	31,414	57
Management	Federated	30,936	37	30,584	35	29,351	33	23,099	21	30,584	35	19,202	29
Management	Fidelity-Advisor	505,251	149	501,475	132	498,615	126	480,185	106	501,475	132	421,828	116
Management	Fidelity-Direct	59,595	58	58,994	45	57,554	37	34,086	12	58,994	45	57,554	37
Management	First Eagle	11,063	5	10,944	4	10,944	4	10,349	3	10,944	4	10,944	4
Management	Franklin Templeton	185,247	100	167,545	72	167,114	67	162,196	58	167,545	72	166,892	66
Management	ING Investments	15,962	60	11,047	44	10,606	37	2,196	8	11,047	44	10,606	37
Management	Janus	71,503	21	71,250	19	68,091	17	58,284	11	71,250	19	68,091	17
Management	John Hancock	16,807	35	16,688	29	16,333	25	13,322	20	16,688	29	16,333	25
Management	Lord Abbett	38,697	27	37,167	20	36,820	17	33,748	12	37,167	20	36,820	17
Management	Merrill Lynch	55,570	58	54,732	55	50,461	44	8,703	7	54,732	55	50,461	44
Management	MFS	75,415	61	75,107	59	74,989	58	59,733	40	75,107	59	74,989	58
Management	Morgan Stanley Adv	39,961	50	38,508	42	37,139	38		-	38,508	42	37,139	38
Management	NeubergerBerman	13,112	14	13,112	14	13,058	12	12,141	8	13,112	14	13,058	12
Management	New York Life	12,818	22	12,172	17	11,327	15	672	1	12,172	17	11,327	15
Management	Nuveen	12,285	36	12,214	35	11,784	33	5,151	18	12,214	35	11,784	33
Management	PIMCO Funds	134,499	51	132,058	37	131,715	32	117,510	16	132,058	37	129,099	20
Management	Pioneer	25,570	24	25,271	21	24,801	18	15,520	13	25,271	21	24,801	18
Management	Prudential Finl	26,278	49	25,534	46	21,506	32	13,475	20	25,534	46	21,506	32
Management	Royce & Assoc	11,951	14	11,820	9	11,820	9	9,522	5	11,820	9	11,820	9
Management	Scudder	53,284	65	52,369	61	51,572	59	45,705	39	52,369	61	21,932	24
Management	So.Eastrn/Longleaf	11,958	3	11,958	3	11,958	3	10,034	2	11,958	3	11,958	3
Management	Strong	17,592	42	17,354	33	17,186	32	12,159	15	17,354	33	17,186	32
Management	T Rowe Price	104,536	72	104,462	69	104,075	62	95,473	44	104,462	69	104,075	62
Management	The Hartford	20,388	33	19,162	22	18,794	18	1,860	6	19,162	22	16,875	11
Management	Thrivent Financial	10,181	25	10,034	22	9,703	16	8,058	9	10,034	22	9,703	16
Management	USAA	22,103	31	22,006	30	21,186	24	17,742	19	22,006	30	21,186	24
Management	Van Kampen	53,853	43	53,439	40	52,192	35	47,422	22	53,439	40	52,192	35
Management	Vanguard	546,352	75	543,661	73	536,486	68	496,039	50	543,661	73	536,486	68
Management	Waddell & Reed	22,175	45	21,806	40	18,756	24	17,863	19	21,806	40	18,756	24
Independent	American Express	63,475	60	58,541	40	57,152	35	52,990	28	58,541	40	57,152	35
Independent	Banc One	39,561	36	38,948	34	37,536	32	30,867	23	38,948	34	37,536	32
Independent	BlackRock	13,483	32	10,664	29	10,620	26	5,550	13	10,664	29	10,620	26
Independent	Evergreen Investmt	45,192	57	44,818	56	44,609	54	38,333	39	44,818	56	26,360	42
Independent	Goldman Sachs	24,088	34	23,992	33	17,878	25	6,399	8	23,992	33	17,878	25
Independent	Harris Associates	22,613	7	22,613	7	21,434	6	9,229	2	22,613	7	21,434	6
Independent	J P Morgan Funds	16,100	38	13,655	33	13,584	31	6,447	12	13,655	33	4,454	11
Independent	Nations Funds	31,965	42	29,414	37	25,728	32	14,784	23	29,414	37	25,728	32
Independent	OppenheimerFunds	92,188	48	92,120	46	88,108	41	83,108	33	92,120	46	88,108	41
Independent	Putnam	130,672	54	130,672	54	128,673	51	111,318	38	130,672	54	128,673	51
Independent	Trusco Capital	9,760	24	7,822	16	6,997	15	4,604	7	7,822	16	6,997	15
Independent	US Bancorp	21,981	37	20,796	31	19,981	25	11,406	11	20,796	31	19,981	25
Independent	Wells Fargo Bank	17,136	39	16,484	32	16,326	31	4,487	13	16,484	32	16,326	31
Independent	WM Advisors	10,656	15	10,429	14	9,929	13	9,096	11	10,429	14	9,929	13
	Management chair funds	3,189,630	1,914	3,103,155	1,639	3,052,829	1,457	2,651,742	939	3,103,155	1,639	2,880,072	1,325
	Percent total			97%	86%	96%	76%	83%	49%	97%	86%	90%	69%
	Independent chair funds	538,869	523	520,968	462	498,555	417	388,617	261	520,968	462	471,175	385
	Percent total			97%	88%	93%	80%	72%	50%	97%	88%	87%	74%
	Total funds	3,728,500	2,437	3,624,124	2,101	3,551,384	1,874	3,040,359	1,200	3,624,124	2,101	3,351,247	1,710
	Percent total			97%	86%	95%	77%	82%	49%	97%	86%	90%	70%

Exhibit A-2:

Expense Coverage Statistics
Assets in $mm

Type of Chair	Complex	Total in analysis Funds	Total in analysis Assets	In Expense Analysis Funds	In Expense Analysis Assets
Management	AIM Investments	62	75,737	58	74,835
Management	AllianceBernstein	57	38,891	48	38,148
Management	American Century	54	70,276	53	70,273
Management	American Funds	26	485,001	25	474,945
Management	Artisan Partners	7	15,626	7	15,626
Management	Calamos	8	12,077	7	12,072
Management	Citigroup Ast Mgmt	57	47,225	53	46,330
Management	Columbia Mgmt Adv	72	49,749	52	42,931
Management	Davis-Selected Adv	7	24,146	6	24,116
Management	Delaware	56	11,513	47	11,268
Management	Dodge & Cox	4	48,985	4	48,985
Management	Dreyfus-Direct	68	17,056	57	15,788
Management	Dreyfus-Premier	58	35,807	52	33,757
Management	Eaton Vance	73	52,602	62	32,260
Management	Federated	37	30,936	35	29,840
Management	Fidelity-Advisor	149	505,251	138	500,944
Management	Fidelity-Direct	58	59,595	49	58,131
Management	First Eagle	5	11,063	5	11,063
Management	Franklin Templeton	100	185,247	84	181,509
Management	ING Investments	60	15,962	50	13,647
Management	Janus	21	71,503	21	71,503
Management	John Hancock	35	16,807	34	16,804
Management	Lord Abbett	27	38,697	23	38,613
Management	Merrill Lynch	58	55,570	52	53,842
Management	MFS	61	75,415	60	75,414
Management	Morgan Stanley Adv	50	39,961	46	39,627
Management	NeubergerBerman	14	13,112	13	12,942
Management	New York Life	22	12,818	22	12,818
Management	Nuveen	36	12,285	35	12,214
Management	PIMCO Funds	51	134,499	43	133,872
Management	Pioneer	24	25,570	22	25,403
Management	Prudential Finl	49	26,278	48	25,872
Management	Royce & Assoc	14	11,951	12	11,947
Management	Scudder	65	53,284	57	47,504
Management	So.Eastrn/Longleaf	3	11,958	3	11,958
Management	Strong	42	17,592	39	17,512
Management	T Rowe Price	72	104,536	67	104,150
Management	The Hartford	33	20,388	25	18,901
Management	Thrivent Financial	25	10,181	23	10,107
Management	USAA	31	22,103	30	22,032
Management	Van Kampen	43	53,853	43	53,853
Management	Vanguard	75	546,352	56	460,641
Management	Waddell & Reed	45	22,175	42	21,989
Independent	American Express	60	63,475	51	61,729
Independent	Banc One	36	39,561	33	37,974
Independent	BlackRock	32	13,483	29	13,221
Independent	Evergreen Investmt	57	45,192	52	44,388
Independent	Goldman Sachs	34	24,088	33	23,798
Independent	Harris Associates	7	22,613	7	22,613
Independent	J P Morgan Funds	38	16,100	32	11,550
Independent	Nations Funds	42	31,965	38	27,602
Independent	OppenheimerFunds	48	92,188	46	91,571
Independent	Putnam	54	130,672	54	130,672
Independent	Trusco Capital	24	9,760	16	7,806
Independent	US Bancorp	37	21,981	34	21,333
Independent	Wells Fargo Bank	39	17,136	37	17,052
Independent	WM Advisors	15	10,656	14	10,429
	Management chair funds	1,914	3,189,630	1,708	3,035,987
	Percent total			89%	95%
	Independent chair funds	523	538,869	476	521,740
	Percent total			91%	97%
	Total funds	2,437	3,728,500	2,184	3,557,726
	Percent total			90%	95%

Performance Analysis

Exhibit A-3 presents the key performance analysis results, where equal- and asset-weighted figures are presented for management and independent chair funds, further broken down by major asset class. The figures for Morningstar ranking and star rating averages are straightforward averages of information taken from the Morningstar Principia database as of December 31, 2003.

Exhibit A-3:
Fund Performance Averages by Type of Chair
periods ending December 31, 2003

Weighting/Fund Type		Type of Chair	Rank in category (100=best) 3 yrs	5 yrs	10 yrs	Stars (5=best)	Alpha	Funds Included
Equally weighted								
	All Funds	Management	58	59	59	3.1	0.82	1,639
		Independent	53	51	48	2.6	0.06	462
		T-statistic	*3.2*	*5.6*	*6.3*	*8.8*	*3.3*	
	Dom Equity	Management	54	56	56	3.0	1.84	763
		Independent	49	45	44	2.7	0.51	201
	Taxable Fixed Income	Management	57	58	60	2.9	(0.84)	236
		Independent	54	53	52	2.5	(0.62)	85
	Intl/Global	Management	53	53	53	2.9	2.33	214
		Independent	54	56	47	2.8	2.17	55
	Municipal	Management	67	67	64	3.3	(0.54)	426
		Independent	58	55	51	2.5	(1.03)	121
Asset weighted								
	All Funds	Management	68	71	76	3.7	1.78	1,639
		Independent	55	57	57	2.9	0.41	462
	Dom Equity	Management	67	70	76	3.7	2.09	763
		Independent	52	54	52	2.9	0.31	201
	Taxable Fixed Income	Management	71	74	79	3.4	(0.04)	236
		Independent	56	58	61	2.6	(0.60)	85
	Intl/Global	Management	75	75	80	4.0	4.32	214
		Independent	63	79	83	3.5	4.70	55
	Municipal	Management	66	68	72	3.6	(0.09)	426
		Independent	55	51	54	2.6	(1.12)	121

Reviewing the results in Exhibit A-3 shows the following:

> Over three, five and ten-year periods, average percentile rankings against other funds in the same Morningstar investment category (e.g. large cap growth or short-term bond) are in favor of the management chair funds. In each case, a t-statistic is calculated for the equal-weighted averages; a value above about 2 indicates that, from a statistical perspective, the difference between the figures for management and independent chair funds is significant at the 95% level, or a 5% or less chance that the difference occurred by chance. When the data are asset-weighted, the differences are even larger.

The pattern of results is quite similar for the Morningstar star rating and alpha averages, with the management chair funds providing the stronger results and the differences being significant and larger for the asset-weighted data.

The alpha analysis was conducted as follows:

Each eligible fund with at least 60 months of monthly returns available was subjected to a returns-based style analysis, where the portfolio of six market indexes that most closely matches the fund's pattern of returns over the 60-month period is determined. This was accomplished with standard quadratic programming tools, where the set of indexes varied as shown below by type of fund. All international index returns are expressed in U.S. dollars, and all fund returns are returns to shareholders, net of expenses but not taking into account any up-front or deferred sales charges.

Domestic Equity Funds	**Fixed Income Funds**	**International/Global Equity Funds**
Russell 1000 Growth	Lehman Brothers 1-3 Year Govt	MSCI Europe
Russell 1000 Value	Lehman Brothers Credit	MSCI Pacific ex Japan
Russell 2000 Growth	Lehman Brothers Government Bond	MSCI Japan
Russell 2000 Value	Lehman Brothers Municipal Bond	MSCI Emerging Markets
MSCI Eafe	CSFB High Yield	MSCI North America
Lehman Brothers Aggregate Bond	Salomon Brothers Non-$ World Govt	Salomon Brothers Non-$ World Govt

Then this custom benchmark for each fund was used to calculate a risk-adjusted excess return or alpha. This was done with a simple regression of fund excess returns on custom benchmark excess returns, excess here meaning the amount by which each out- or under-performed U.S. T-bills. The alpha is a statistical estimate of how much the fund has out- or under-performed the custom benchmark on an annual basis, after adjusting for the so-called beta effect. The beta effect is the tendency for fund returns to mirror the pattern of the benchmark returns, which can be accomplished by owning the benchmark and borrowing or lending cash and therefore is not considered part of the manager's value-added.

There are of course far more sophisticated ways to establish fund benchmarks and assess manager value added. However, we believe the approach used is a generally fair and reasonable way to assess manager value added adjusted for risk, especially when applied and averaged over large groups of funds.

As mentioned in the body of the report, the Morningstar star ratings utilize a complex methodology, and we refer the reader to Morningstar.com for the full details. The method does take into account both risk and return and is therefore appraises returns in the context of risk undertaken. There is one methodological factor of the star rating which presents an issue for this study: in assessing returns, Morningstar amortizes the maximum sales loads of load funds against performance. While sales loads are a reality for retail customers making traditional load purchases through brokers, as mentioned earlier more and more "load" funds are being purchased via mutual fund marketplaces, defined contribution plans, or mutual fund wrap programs, where the load is waived. This is important here since, as shown in Exhibit A-4, 97% of the eligible independent chair funds and 95% of the related assets are in load funds, compared with 70% of the funds and 54% of the assets for the management chair funds.

Exhibit A-4:

Funds and Assets by Load Type and Type of Chair

basis: eligible funds

Type of Chair	Number of Funds			Portfolio Assets		
	Load	No-Load	Total	Load	No-Load	Total
Management	1,273	534	1,807	1,713,384	1,451,385	3,164,769
	70%	*30%*	*100%*	*54%*	*46%*	*100%*
Independent	492	14	506	506,037	27,479	533,516
	97%	*3%*	*100%*	*95%*	*5%*	*100%*
Total	1,765	548	2,313	2,219,422	1,478,864	3,698,286
	76%	*24%*	*100%*	*60%*	*40%*	*100%*

It is not practical to reverse-engineer the Morningstar star ratings to remove the load effect. However, we can gain some insight to the effect by recalculating our star averages looking only at load funds. This approach is somewhat unfair to the management chair group because some fund groups with particularly strong performance are excluded. However Exhibit A-5 shows the star rating averages still favor the management chair fund group (though to a lesser extent) and are still statistically significant.

Exhibit A-5:

Performance Averages by Type of Chair

Including only load funds, periods ending December 31, 2003

Weighting	Fund Type	Type of Chair	Rank in category (100=best) 3 yrs	5 yrs	10 yrs	Stars (5=best)	Funds Included
Equally weighted							
	All Funds	Management	55	56	56	2.9	1,159
		Independent	53	50	48	2.6	449
		T-statistic	*2.0*	*3.8*	*4.2*	*5.0*	
	Dom Equity	Management	50	53	52	2.9	509
		Independent	49	45	43	2.7	193
	Taxable Fixed Income	Management	55	55	55	2.6	169
		Independent	54	53	52	2.5	85
	Intl/Global	Management	51	50	49	2.7	168
		Independent	52	55	45	2.7	52
	Municipal	Management	67	65	62	3.1	313
		Independent	58	55	51	2.4	119
Asset weighted							
	All Funds	Management	68	71	76	3.5	1,159
		Independent	53	56	57	2.8	449
	Dom Equity	Management	65	71	75	3.6	509
		Independent	49	51	52	2.8	193
	Taxable Fixed Income	Management	70	72	78	2.9	169
		Independent	56	58	61	2.6	85
	Intl/Global	Management	79	76	81	4.1	168
		Independent	59	78	83	3.4	52
	Municipal	Management	67	67	69	3.3	313
		Independent	55	51	54	2.6	119

Another potential issue is that load funds tend to have higher expenses than no-load funds, which can impact performance rankings. Exhibit A-5 also includes performance

rankings including only load funds; all the comparisons continue to favor management chair funds, and the 3-, 5- and 10-year comparisons continue to be statistically significant. As with the star ratings above, these comparisons disadvantage the management chair group as some strong-performing groups are excluded.

As alluded to in the body of the report, the Morningstar rankings and ratings are formally what is known as rank-order or ordinal data, raising a question as to whether averages and related tests could be misleading. In Exhibit A-6, we present the actual distributions of the Morningstar star ratings, for both all funds and load funds only, by chair type, along with T-statistics associated with an appropriate measure for rank-order data (Somers' D). As shown, the T-statistics are actually slightly greater than those presented with the averaged data. In Exhibit A-7, the distributions of ranking data have been summarized into performance quartiles (e.g. rankings of 76-100 equate to the top quartile), and again the related T-statistics are somewhat higher than those presented earlier.

Exhibit A-6:

Distribution of Star Ratings by Load Type and Type of Chair

		Management	Independent
Load and No-load funds			
5		9%	3%
4		26%	12%
3		35%	37%
2		23%	38%
1		8%	10%
		100%	100%
	T-statistic	*8.8*	
Load funds only			
5		5%	3%
4		21%	11%
3		37%	38%
2		27%	38%
1		10%	10%
		100%	100%
	T-statistic	*5.1*	

Exhibit A-7:

Distribution of Quartile Rankings by Load Type and Type of Chair
periods ended December 31, 2003

	Three Years		Five Years		Ten Years	
	Management	Independent	Management	Independent	Management	Independent
Load and No-load funds						
Top quartile	34%	25%	36%	23%	37%	15%
Second quartile	28%	30%	28%	28%	26%	29%
Third quartile	21%	27%	22%	31%	22%	40%
Bottom quartile	16%	18%	14%	18%	15%	16%
	100%	100%	100%	100%	100%	100%
T-statistic	*3.5*		*5.8*		*6.5*	
Load Funds Only						
Top quartile	31%	24%	31%	22%	32%	15%
Second quartile	28%	30%	29%	29%	27%	29%
Third quartile	23%	27%	23%	31%	24%	40%
Bottom quartile	18%	18%	17%	17%	17%	16%
	100%	100%	100%	100%	100%	100%
T-statistic	*2.1*		*3.9*		*4.4*	

For reference, Exhibit A-8 reports performance analysis results by fund complex.

Exhibit A-8

Fund Performance Averages by Complex
periods ended December 31, 2003

Type of Chair	Complex	Equally weighted					Asset weighted				
		Rank in category					Rank in category				
		3 yrs	5 yrs	10 yrs	Stars	Alpha	3 yrs	5 yrs	10 yrs	Stars	Alpha
Management	AIM Investments	48	47	39	2.7	1.42	38	47	39	2.6	0.97
Management	AllianceBernstein	50	49	55	2.8	(0.42)	42	45	61	2.7	(0.35)
Management	American Century	64	66	64	3.6	1.16	66	63	63	3.7	1.50
Management	American Funds	77	79	79	3.7	1.60	84	83	88	4.4	2.84
Management	Artisan Partners	77	82		4.3	6.93	76	94		4.9	8.36
Management	Calamos	80	90	91	4.5	7.72	91	98	97	5.0	12.32
Management	Citigroup Ast Mgmt	49	49	50	2.8	(0.48)	66	69	73	3.5	3.00
Management	Columbia Mgmt Adv	54	55	56	2.7	(0.78)	61	61	66	3.1	(0.67)
Management	Davis-Selected Adv	51	43	62	2.8	2.37	85	88	93	3.9	2.53
Management	Delaware	65	54	44	2.8	(0.74)	61	53	46	2.6	0.44
Management	Dodge & Cox	97	98	98	5.0	4.26	98	99	98	5.0	5.69
Management	Dreyfus-Direct	49	48	47	2.6	(0.10)	47	53	57	2.8	1.05
Management	Dreyfus-Premier	48	52	44	3.0	(0.14)	53	57	55	3.3	0.45
Management	Eaton Vance	65	64	49	3.2	(0.58)	71	78	77	3.8	0.47
Management	Federated	53	45	52	2.5	(0.84)	65	56	70	3.2	(0.64)
Management	Fidelity-Advisor	68	69	66	3.7	2.97	68	70	71	3.8	1.93
Management	Fidelity-Direct	67	63	51	3.0	1.79	71	66	58	3.1	1.20
Management	First Eagle	91	80	97	4.5	11.16	94	93	99	4.9	11.63
Management	Franklin Templeton	68	72	71	3.4	1.09	73	75	71	3.6	1.87
Management	ING Investments	38	44	69	2.5	1.38	45	62	75	2.7	3.75
Management	Janus	39	58	70	3.3	1.82	36	55	77	3.3	1.11
Management	John Hancock	45	47	47	2.7	(0.38)	51	46	53	2.8	0.06
Management	Lord Abbett	53	61	53	2.9	(0.02)	50	80	84	3.7	1.94
Management	Merrill Lynch	58	54	40	2.7	0.70	64	65	62	3.1	1.54
Management	MFS	60	66	59	3.1	0.41	47	58	61	2.9	(0.15)
Management	Morgan Stanley Adv	46	49		2.5	(0.57)	46	50		2.7	(1.64)
Management	NeubergerBerman	59	58	54	3.1	1.59	75	73	71	3.4	3.89
Management	New York Life	49	52	58	2.8	0.21	60	62	58	3.0	(0.39)
Management	Nuveen	63	56	65	3.1	(1.35)	54	50	58	3.0	(1.27)
Management	PIMCO Funds	60	74	76	3.1	2.31	78	82	91	3.1	1.03
Management	Pioneer	52	46	33	2.7	0.45	72	74	47	3.5	2.98
Management	Prudential Finl	57	63	59	2.9	0.60	58	62	58	3.1	(0.11)
Management	Royce & Assoc	80	81	79	4.2	6.96	77	78	82	4.3	6.11
Management	Scudder	51	50	52	2.6	(0.18)	54	55	53	2.8	0.16
Management	So.Eastrn/Longleaf	75	69	90	4.3	7.14	75	68	92	4.2	6.16
Management	Strong	37	50	44	2.9	0.48	28	45	58	2.8	0.62
Management	T Rowe Price	70	67	71	3.7	1.71	76	71	74	4.0	2.15
Management	The Hartford	53	64	48	2.8	2.45	47	71	54	3.0	5.23
Management	Thrivent Financial	42	45	44	2.5	(1.47)	40	51	51	2.8	(1.45)
Management	USAA	58	58	61	3.4	0.04	65	64	64	3.7	(0.34)
Management	Van Kampen	44	52	52	2.6	0.02	52	74	77	3.1	1.34
Management	Vanguard	70	72	76	3.9	1.62	70	70	81	3.9	1.02
Independent	Waddell & Reed	53	53	61	2.9	0.61	46	66	66	3.3	1.09
Independent	American Express	37	34	37	2.0	(1.38)	35	43	47	2.5	(0.78)
Independent	Banc One	58	51	54	2.7	(0.52)	59	54	62	2.8	(0.22)
Independent	BlackRock	39	48	36	2.6	0.24	45	52	46	2.6	(0.12)
Independent	Evergreen Investmt	62	56	51	2.7	0.25	66	66	63	2.8	0.12
Independent	Goldman Sachs	55	49	49	2.7	0.34	63	60	45	3.0	0.45
Independent	Harris Associates	85	77	77	4.0	5.72	94	91	75	4.5	6.12
Independent	J P Morgan Funds	49	45	32	2.4	(0.44)	48	47	32	2.4	(0.80)
Independent	Nations Funds	48	49	38	2.6	(0.27)	52	57	40	2.7	1.01
Independent	OppenheimerFunds	64	60	60	3.1	1.36	68	69	70	3.3	1.53
Independent	Putnam	44	46	47	2.4	(0.31)	42	48	52	2.5	(0.55)
Independent	Trusco Capital	51	43	43	2.4	(1.26)	55	44	44	2.7	(1.52)
Independent	US Bancorp	61	59	57	2.6	0.88	55	55	55	2.8	0.53
Independent	Wells Fargo Bank	52	47	50	2.6	(0.68)	50	53	55	2.7	(0.16)
Independent	WM Advisors	70	77	64	3.1	1.55	66	77	74	3.1	1.98

Expense Analysis

The principal expense analysis results are reported in Exhibit A-9, which shows equal- and asset-weighted expense averages by type of chair, both including and excluding distribution-related expenses and further broken down by major asset class.

Exhibit A-9:
Fund Expense Averages by Type of Chair

				(Better)/Worse than Peer Avg			
Weighting	Fund Type		Type of Chair	Total ex Distrib	Distribution	Total incl. Distrib	Funds Included
Equally weighted							
	All Funds	All Funds	Management	0.00	(0.01)	(0.01)	1,708
		All Funds	Independent	(0.01)	0.05	0.04	476
			T-statistic	*1.0*		*4.1*	
	Dom Equity	DEQ	Management	0.01	(0.01)	(0.01)	853
		DEQ	Independent	0.00	(0.02)	(0.02)	253
	Taxable Fixed Income	DTFI	Management	0.02	(0.01)	0.01	235
		DTFI	Independent	(0.01)	(0.02)	(0.02)	367
	Intl/Global	GLIN	Management	(0.02)	0.05	0.03	216
		GLIN	Independent	(0.00)	0.05	0.05	91
	Municipal	MUNI	Management	(0.09)	0.06	(0.03)	56
		MUNI	Independent	0.02	0.06	0.08	113
Asset weighted							
	All Funds		Management	(0.27)	(0.06)	(0.32)	1,360
			Independent	(0.11)	0.04	(0.08)	824
	Dom Equity	DEQ	Management	(0.29)	(0.07)	(0.36)	853
		DEQ	Independent	(0.11)	(0.03)	(0.14)	253
	Taxable Fixed Income	DTFI	Management	(0.44)	(0.04)	(0.47)	235
		DTFI	Independent	(0.11)	(0.07)	(0.18)	367
	Intl/Global	GLIN	Management	(0.14)	0.04	(0.10)	216
		GLIN	Independent	(0.05)	0.05	(0.00)	91
	Municipal	MUNI	Management	(0.25)	0.00	(0.25)	56
		MUNI	Independent	(0.00)	0.05	0.04	113

The major comparisons and their significance were already discussed in the body of the report; additional comments and details are as follows:

> The figures reported are averages of the difference between a fund's expense level and the equally-weighted average for its peer group (see earlier discussion for the peer grouping used). Therefore, a positive figure indicates that the funds in question have on average a higher expense ratio than their peers, and a negative figure indicates lower-than-peers average expenses. Figures for asset-weighted averages are generally negative (below average), since the larger funds that are more heavily weighted in these calculations generally have lower expenses than smaller funds.
>
> Please see the prior section for a discussion of the t-statistics reported.

The breakdowns by asset class show some differences from the overall figures, which is to be expected.

For reference, Exhibit A-10 reports expense averages by complex.

Exhibit A-10:

Expense Averages by Complex
periods ended December 31, 2003

Type of Chair	Complex	Equally weighted		Asset weighted	
		Total ex Distrib	Total incl. Distrib	Total ex Distrib	Total incl. Distrib
Management	AIM Investments	0.03	0.14	(0.05)	0.06
Management	AllianceBernstein	0.14	0.24	0.11	0.20
Management	American Century	(0.03)	(0.23)	(0.10)	(0.30)
Management	American Funds	(0.43)	(0.38)	(0.58)	(0.55)
Management	Artisan Partners	0.28	0.06	(0.09)	(0.31)
Management	Calamos	0.21	0.25	0.05	0.08
Management	Citigroup Ast Mgmt	0.01	0.03	(0.04)	(0.00)
Management	Columbia Mgmt Adv	0.10	0.15	0.01	0.08
Management	Davis-Selected Adv	(0.12)	(0.10)	(0.27)	(0.22)
Management	Delaware	0.01	0.06	0.06	0.11
Management	Dodge & Cox	(0.39)	(0.60)	(0.39)	(0.60)
Management	Dreyfus-Direct	0.11	0.16	0.03	0.07
Management	Dreyfus-Premier	(0.03)	(0.05)	(0.09)	(0.10)
Management	Eaton Vance	0.06	0.09	(0.19)	(0.14)
Management	Federated	0.13	0.21	0.09	0.20
Management	Fidelity-Advisor	(0.10)	(0.30)	(0.24)	(0.44)
Management	Fidelity-Direct	(0.03)	0.01	(0.18)	(0.13)
Management	First Eagle	(0.01)	0.08	(0.17)	(0.11)
Management	Franklin Templeton	(0.10)	(0.09)	(0.27)	(0.27)
Management	ING Investments	0.15	0.22	0.16	0.23
Management	Janus	(0.14)	(0.35)	(0.22)	(0.43)
Management	John Hancock	0.14	0.21	0.03	0.11
Management	Lord Abbett	0.01	0.15	(0.28)	(0.13)
Management	Merrill Lynch	0.08	0.10	(0.14)	(0.11)
Management	MFS	(0.07)	0.01	(0.22)	(0.12)
Management	Morgan Stanley Adv	(0.08)	(0.05)	(0.21)	(0.18)
Management	NeubergerBerman	0.11	(0.10)	(0.09)	(0.30)
Management	New York Life	0.29	0.33	0.09	0.13
Management	Nuveen	0.08	0.11	0.06	0.09
Management	PIMCO Funds	(0.08)	(0.03)	(0.05)	(0.01)
Management	Pioneer	0.13	0.16	(0.05)	(0.02)
Management	Prudential Finl	0.10	0.15	(0.08)	(0.03)
Management	Royce & Assoc	0.08	(0.11)	0.01	(0.20)
Management	Scudder	(0.01)	0.01	(0.05)	(0.02)
Management	So.Eastrn/Longleaf	(0.07)	(0.29)	(0.16)	(0.37)
Management	Strong	0.37	0.22	0.30	0.12
Management	T Rowe Price	(0.11)	(0.31)	(0.20)	(0.40)
Management	The Hartford	0.08	0.18	0.05	0.14
Management	Thrivent Financial	0.14	0.19	(0.08)	(0.04)
Management	USAA	0.06	(0.14)	(0.04)	(0.23)
Management	Van Kampen	0.06	0.10	(0.17)	(0.12)
Management	Vanguard	(0.50)	(0.67)	(0.47)	(0.63)
Management	Waddell & Reed	0.14	0.19	0.03	0.08
Independent	American Express	(0.02)	0.02	(0.11)	(0.07)
Independent	Banc One	(0.06)	(0.00)	(0.09)	(0.03)
Independent	BlackRock	(0.01)	0.20	(0.07)	0.13
Independent	Evergreen Investmt	0.05	0.11	(0.08)	(0.02)
Independent	Goldman Sachs	(0.02)	0.09	0.02	0.08
Independent	Harris Associates	0.00	(0.21)	(0.02)	(0.23)
Independent	J P Morgan Funds	0.01	0.05	(0.07)	0.00
Independent	Nations Funds	(0.03)	0.02	(0.05)	0.00
Independent	OppenheimerFunds	(0.01)	0.02	(0.12)	(0.09)
Independent	Putnam	(0.11)	(0.07)	(0.23)	(0.20)
Independent	Trusco Capital	0.25	0.22	0.22	0.25
Independent	US Bancorp	(0.04)	(0.01)	(0.06)	(0.03)
Independent	Wells Fargo Bank	(0.00)	0.04	(0.04)	0.01
Independent	WM Advisors	(0.05)	(0.01)	(0.08)	(0.04)