

A REVIEW OF THE
**SEC OFFICE OF ECONOMIC ANALYSIS
BOARD INDEPENDENCE STUDIES**

MARCH 2, 2007

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EXECUTIVE SUMMARY

The Securities and Exchange Commission has requested public comment on two studies prepared by its Office of Economic Analysis (OEA) that relate to mutual fund board independence.¹ These studies examine the economic rationale for requiring that at least 75 percent of the members of mutual fund boards, including the chair, be independent directors.² The *Literature Review* provides a summary of recent academic research related to mutual fund governance. The *Power Study* discusses the strength of the statistical tests used in some of the academic papers cited in the *Literature Review*.

As a matter of practice, regulators generally weigh three considerations when analyzing the economic rationale of rules.³ They first identify the specific need for the rule—in economic terms, the market imperfection or regulatory failure that the rule seeks to address. They next identify the benefits associated with the rule. Finally, they weigh any benefits against the costs of the rule’s implementation.

The OEA studies provide valuable insight into the SEC staff’s considerations on two parts of this framework: the need for the board independence requirements and their potential benefits. The OEA studies do not examine the potential costs of the requirements, but other SEC releases have explored that topic.⁴

Taken together, the OEA studies and the other SEC cost-related statements provide no compelling evidence that the board independence requirements are necessary or that they would provide any benefits that would justify their attendant costs. More specifically:

- The *Literature Review* discusses several potential market imperfections that could motivate regulatory intervention, but it does not conclude that the board independence requirements would enhance current regulations that seek to address these same market imperfections.
- The *Literature Review* discusses market forces that help to align the interests of advisers and fund investors. For reasons set forth below, such market forces are much stronger than suggested by the *Literature Review*.
- The OEA studies indicate that the arguments and evidence that greater board independence is associated with better governance are mixed. Indeed, the *Literature Review* suggests that the optimal board structure may vary from firm to firm.
- Neither OEA study finds any compelling evidence that independent chairs enhance shareholder protections.

1 Investment Company File S7-03-04, “Literature Review on Independent Mutual Fund Chairs and Directors,” December 29, 2006 (the *Literature Review*); and Investment Company Governance File S7-03-04, “Power Study as Related to Independent Mutual Fund Chairs,” December 29, 2006 (the *Power Study*).

2 We refer to the independent chair and 75 percent board independence requirements collectively as the “board independence requirements.”

3 See Appendix A for a discussion of a general framework used in the analysis of the economic rationale for the board independence requirements.

4 See, e.g., Commission Response to Remand by Court of Appeals, SEC Release No. IC-26985 (June 30, 2005), 70 Fed. Reg. 39390 (July 7, 2005).

- The *Literature Review* finds that there is no consensus as to the optimal percentage of independent directors on a fund board.
- The *Power Study* suggests that weak statistical tests and insufficient data could have prevented researchers from uncovering evidence of the benefits of an independent chair. Our review of the empirical research indicates that the tests were much stronger than the *Power Study* implies.
- Based upon the Institute's research, the costs of the board independence requirements will disproportionately affect small fund organizations, potentially increasing barriers to entry to the mutual fund industry.

We explain these observations and conclusions in our analysis of the OEA studies below. The three considerations regulators use to evaluate the economic rationale for rules provide the framework for our analysis. Sections I and II examine the need for the board independence requirements by analyzing the market imperfections described in the *Literature Review* and the ability of current regulations and market forces to address those imperfections. Section III summarizes the academic research that has sought to measure the potential benefits arising from the board independence requirements. Section IV provides a brief summary of prior findings by the Institute on the costs of implementing these requirements. Section V summarizes our conclusions. Two appendices are also attached. Appendix A describes in more detail a general framework for analyzing the economic rationale of a regulatory proposal. Appendix B examines in more detail the power of the econometric tests discussed in Section III of this paper.

A REVIEW OF THE SEC OFFICE OF ECONOMIC ANALYSIS BOARD INDEPENDENCE STUDIES

I. MARKET IMPERFECTIONS DESCRIBED IN THE *LITERATURE REVIEW*

The first step in an economic assessment of a rule proposal is identifying the specific market imperfection the rule seeks to address. This step helps to ensure that the proposed rule is designed specifically to solve an identified problem. Furthermore, since all rules have costs and may have unintended consequences, identifying the particular problem assists in weighing the costs of the rule against its benefits.

The *Literature Review* examines three main groups of market imperfections (“agency conflicts”) that could potentially cause the interests of fund advisers to diverge from those of fund investors and thus could motivate the need for the board independence requirements:

1. Differences in financial incentives and risk tolerances between advisers and fund shareholders;
2. Incentives for advisers to favor one fund over another; and
3. Advisers’ participation in establishing the terms of fund advisory contracts.

It is not clear that these putative agency conflicts are always economically meaningful, work to the detriment of fund shareholders, or fail to be addressed by existing SEC rules or mitigated by market forces. Perhaps, more importantly, to the extent that these agency conflicts do exert a meaningful influence on advisers’ behavior that is not addressed by current rules and market forces, it remains unclear how requiring an independent chair or 75 percent independent board would address them.

FINANCIAL INCENTIVES AND RISK TOLERANCES OF ADVISERS AND INVESTORS

The *Literature Review* first discusses potential conflicts that stem from differences in adviser and investor financial incentives and tolerances for risk. Some academic researchers have suggested that investors’ tendency to favor funds with the highest returns (relative to their peers) could lead a fund’s portfolio manager to engage in risky strategies with higher expected returns. If these strategies are successful, the fund’s higher performance attracts more investor dollars, and the adviser earns greater fee income through asset-based fees. For example, the *Literature Review* cites two papers that find that funds with returns that lag their peers over the first part of the year tend to increase the risk of their portfolio later in the year in a gamble to “catch up.”⁵ Although we understand the concerns expressed regarding this potential conflict, we believe the *Literature Review* fails to take several factors into consideration that help to mitigate it.

First, other researchers have questioned whether this potential conflict is of economic significance. For example, Busse (2001) argues that the evidence that funds gamble to “catch up” is an artifact of the monthly return data used by these studies and is not apparent when daily fund returns are examined.

⁵ Brown, Harlow, and Starks (1996); and Chevalier and Ellison (1997).

Second, existing regulations seek to assure that an adviser does not deviate from investors' reasonable expectations about a fund's risk profile. For example, investments made by funds must be consistent with the terms of their prospectuses, which must describe funds' investment objectives, investment strategies, and risks.⁶ Compliance is enforced through SEC examinations, board oversight, and legal liability for failing to comply with the fund's disclosed investment objectives, strategies, and risk.⁷

Third, the private sector, responding to investor demand for risk and return information, helps further mitigate this conflict. Firms that track mutual fund performance, expenses, and other attributes provide a broad array of measures of risk, such as risk-adjusted performance, fund return variability on a 1-, 3-, 5-, and 10-year basis, fund performance relative to peer groups, and other more esoteric measures such as "alpha" and "beta." Over time, these firms have modified their performance measures to allow investors to better monitor advisers' actions.⁸

Fourth, asset-based fees can also help align the interests of advisers and investors over long- and short-term horizons. Research has shown that investors respond to both short- and long-term performance.⁹ Advisers that are the most successful at delivering investment performance and other services are rewarded with more assets and greater fee income. Advisers that are less successful in delivering performance and service over time lose investors through natural ongoing attrition.¹⁰

ADVISERS MANAGING MORE THAN ONE FUND

The *Literature Review* discusses the possibility of cross-subsidization in cases where advisers manage more than one fund. It notes that cross-subsidization provides benefits to shareholders, such as the ability to move assets easily to or invest in other funds offered by the complex. It also identifies a conflict that could potentially arise from cross-subsidization: advisers could favor one fund over another by assigning "winning trades" to "star" funds to the detriment of other funds within the complex.¹¹

⁶ SEC rules also address the potential misalignment of interests by prohibiting the use of materially deceptive or misleading fund names. See Rule 35d-1 under the Investment Company Act.

⁷ Directors currently examine the performance of funds and are empowered to take corrective actions with the fund adviser if they believe fund shareholders are not being well served.

⁸ For example, mutual fund information providers have in recent years created "style boxes" which they adjust quarterly to reflect changes in funds' portfolios. These firms have also recently emphasized rankings that focus on narrower groupings of funds that have similar risk profiles.

⁹ See Del Guercio and Tkac (2007) and Nand, Wang, and Zheng (2004). Both studies find that measures of long-term performance, such as "star" ratings help to explain flows into funds over and above prior year performance.

¹⁰ See "Willingness of Investors to Move Between Funds" at pp. 6-7, *infra*. Also, as indicated by Johnson (2006), both new and existing shareholders monitor fund performance in determining whether to increase their investments in the funds. This behavior, coupled with the natural attrition that funds experience, helps to link the interests of advisers with those of shareholders.

¹¹ The *Literature Review* points to Gaspar, Massa, and Matos (2006).

Existing regulatory requirements and compliance mechanisms already help to address this potential problem. For example, advisers are required to have written compliance policies and procedures.¹² The SEC has indicated that those policies and procedures should address, if applicable, allocation of investment opportunities among clients and procedures by which the adviser allocates aggregated trades among clients.¹³ Funds' chief compliance officers, who report to the fund's board, monitor advisers' allocation of trades. In addition, the SEC frequently focuses on trade allocation when conducting examinations of advisers.¹⁴ Intentionally favoring one fund over another in allocating securities trades would violate the fiduciary duty that an adviser owes equally to each of its funds.

ADVISORY CONTRACT APPROVAL PROCESS

The *Literature Review* indicates that another potential conflict may arise in the advisory contract approval process. It states that advisers “serve on the mutual fund's board, ... participate in setting the advisory contract, and in effect, participate in establishing their own compensation.” It further asserts that “[a]dvisers acting as directors might be in a position to negotiate a better contract for the adviser—at the expense of fund shareholder[s].”

The *Literature Review* does not mention existing legal and regulatory requirements that provide a level of price oversight not found in other industries with similarly low market concentration.¹⁵ First, both the fund board as a whole *and* a majority of the fund's independent directors must approve the advisory contract both initially and on an annual basis (after an initial term of no more than two years).¹⁶ Second, a fund adviser has a fiduciary duty with respect to its compensation from the fund for its services. The SEC and fund shareholders may bring suit against the adviser for breach of this duty.¹⁷ Third, fund shareholders must approve any material change to the advisory contract, including any proposed fee increase. An adviser cannot unilaterally raise fund fees, nor may the board alone approve a fee increase.

It is not clear how the board independence requirements would foster stronger price competition among fund companies.¹⁸ In fact, there is strong evidence that prices are already an important factor in investors' consideration of mutual funds. The next section explores in more detail how market forces help to promote competition among mutual fund advisers and align the interests of fund advisers and investors.

¹² Rule 206(4)-7 under the Investment Advisers Act of 1940.

¹³ Compliance Programs of Investment Companies and Investment Advisers, SEC Release No. IC-26299 (December 17, 2003), 68 Fed. Reg. 74714 (December 24, 2003).

¹⁴ See U.S. Securities and Exchange Commission, Office of Compliance Inspections and Examinations – Highlights, available at http://www.sec.gov/about/offices/ocie/ocie_highlights.shtml.

¹⁵ The Herfindahl-Hirschman index for the mutual fund industry was 433 as of December 31, 2006. The Herfindahl-Hirschman measure considers industries with index numbers below 1,000 to be unconcentrated.

¹⁶ Sections 15(a) and 15(c) of the Investment Company Act of 1940.

¹⁷ Section 36(b) of the Investment Company Act of 1940.

¹⁸ The *Literature Review* states at p. 10 that “better governance can lead boards to negotiate lower fees on behalf of investors, a critical determinant of long-run performance,” which could perhaps be misinterpreted as suggesting that lower fees are always in the best interest of fund shareholders. From a business and economic perspective, however, it is not clear that fund directors will serve the interests of fund shareholders by always trying to push fund fees ever lower. At some point, revenues to the adviser will become too low for the adviser to be able to make capital improvements, attract talented investment professionals, meet investors' demands for more and better services, or receive an adequate return to have an incentive to stay in the market. Such developments are unlikely to promote the interests of fund shareholders.

II. MARKET FORCES THAT HELP TO ALIGN THE INTERESTS OF ADVISERS AND INVESTORS

Examining the economic rationale for a rule also involves examining market forces that help to address market imperfections and reduce the need for a rule. The *Literature Review* discusses some general ways in which funds compete, but it raises concerns about the ease with which investors can search for and change funds, thereby reducing the incentives of funds to compete vigorously for investors. We believe that the *Literature Review* understates the extent to which market forces spur competition. In this section, we discuss several market forces that create considerable ability and opportunity for investors both to find appropriate funds and to leave funds to invest in other funds that better meet their needs.

HOW INVESTORS SEARCH FOR FUNDS

The *Literature Review* notes that investors may choose from among many funds, and that this selection process can stimulate competition. It also states that there are significant costs for investors to search for new funds, reducing investors' ability to stimulate competitive pressures in the market.

In practice, it is less costly for investors to search among funds than the *Literature Review* suggests. Fund shareholders receive assistance from 401(k) plan sponsors and financial advisers. Investors can also turn to a variety of information services to help them select and monitor funds.

About two-thirds of fund shareholders own mutual funds through a 401(k) plan at work. These investors rely on their plan sponsor to narrow the list of mutual funds in which they may invest while still providing a reasonable array of choices. Plan sponsors and other plan fiduciaries have a legal duty to prudently select and periodically monitor the investments offered to participants in 401(k) plans.¹⁹ Although regulation requires *at least* three diversified investment options,²⁰ plan participants have, on average, 19 funds available to them.²¹ In addition, participants in a majority of the plans are able to choose among funds from competing fund sponsors.²² Also, plan fiduciaries frequently replace investment options when they determine that an offering is no longer prudent.²³

More than 80 percent of investors who purchase mutual funds outside their employer-sponsored retirement accounts rely on a third party to help select funds or narrow the range of funds in which they invest.²⁴ The assistance these financial advisers provide to their clients is extensive, including help with asset allocation, explanation of investments, retirement planning, tax advice, and retirement income management. The selection of funds on the part of the financial adviser is integral to their advice services.²⁵

¹⁹ See Department of Labor, Preamble to Final Regulation on Participant Directed Account Plans, 57 Fed. Reg. 56906 (October 13, 1992) at n. 27. Under the Employee Retirement Income Security Act of 1974 (ERISA), the plan sponsor and other plan fiduciaries must act *solely* in the interest of plan participants and beneficiaries and with the "care, skill, prudence, and diligence ... that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." ERISA § 404(a)(1).

²⁰ 29 C.F.R. § 2550.404c-1(b)(i). This regulation applies to participant-directed 401(k) plans intending to receive fiduciary protection under section 404(c) of ERISA.

²¹ See Profit Sharing/401(k) Council of America, *49th Annual Survey, Reflecting 2005 Plan Experience*, (2006), at 26.

²² Two-thirds of plans are not restricted to investment options managed by their record keepers. *Id.* at 34.

²³ Congress recognized this widespread occurrence by creating, in the Pension Protection Act of 2006, legal requirements for a "qualified change in investment options"—also known as mapping (P.L. 109-280 § 621).

²⁴ See "Ownership of Mutual Funds Through Professional Financial Advisers," *ICI Fundamentals* 2005. (<http://www.ici.org/pdf/fm-v14n3.pdf>)

²⁵ The *Literature Review* raises a concern that brokers may face their own conflicts when recommending investments to their clients. We note that current rules seek to address this concern, and additional requirements are under consideration. See, e.g., NASD Conduct Rules 2310 (suitability requirements) and 2930(l)(4) (cash compensation in connection with distribution of mutual funds), and SEC Release Nos. 33-8544; 34-51274; IC-26778 (Feb. 28, 2005), 70 Fed. Reg. 10521 (Mar. 4, 2005) (proposed point of sale disclosure requirements).

WILLINGNESS OF INVESTORS TO MOVE BETWEEN FUNDS

The *Literature Review* states that tax consequences can also limit the ability of shareholders to leave a fund. While this may be the case for some fund shareholders, this impediment is not as pervasive as suggested by the *Literature Review* for two reasons.

The first reason is that about 70 percent of individual and household mutual fund holdings are largely unaffected by the tax consequences of redeeming mutual fund shares. As of year-end 2005, nearly 55 percent of retail mutual fund holdings were held in IRAs, 401(k) plans, and other accounts that allow investors to move between assets without tax consequences. Another 15 percent of retail mutual fund assets were held in taxable accounts invested in taxable bond and money market funds that distribute most, if not all, of their earnings through dividends each year. Second, among stock funds held in taxable accounts, mutual funds are required to distribute realized capital gains each year, which helps to limit the potential tax impediment associated with moving assets from one fund to another.²⁶

The second reason is that mutual fund shareholders avail themselves readily of their right to redeem shares. The flow of investor dollars in and out of funds in a given year is significant, demonstrating that powerful market forces are at play to help align the interests of fund advisers and their shareholders. As shown in the first column of Table 1, about one-quarter of equity, hybrid, and bond fund assets were redeemed in 2006.²⁷ These redemptions are not concentrated in a few funds—half of equity, hybrid, and bond funds had gross redemptions totaling at least one-quarter of their average assets during 2006. Nor does the redemption activity seem to be concentrated among a few investors. About half of all new shareholder accounts are closed within four to five years of their opening.²⁸

As a result of shareholder redemptions, funds must continually work to attract new shareholder investments—something that many funds and fund complexes do not succeed in doing. In any given year during the past decade, 40 to 55 percent of funds and 25 to 50 percent of fund complexes experienced a net cash outflow. These outflows, along with the overall effects of regulatory, competitive, and other market forces, on fund advisers have led about 140 fund advisers, on net, to leave the fund business since 2000, a net reduction of approximately 20 percent of the total number of firms in the business. These forces did not only affect smaller fund advisers: several large advisers of funds have recently sold their fund advisory businesses following several years of declining investor demand for their funds.

²⁶ As noted in the *Literature Review*, research by Barclay, Pearson, and Weisbach (1998) shows that fund managers actively realize and distribute capital gains in order to reduce the “overhang” of unrealized gains. This activity helps to reduce the potential tax liability that existing shareholders face upon redemption of their shares and that new investors assume when buying into a fund.

²⁷ Redemptions are measured as the dollar value of actual shares redeemed from funds during the year, including exchange redemptions. Redemptions exclude the effects associated with fund mergers, liquidations, paid dividends, or capital gains. The redemption rate is calculated by dividing redemptions by the average fund assets for the year.

²⁸ This finding is based on confidential account-level data that the Institute has collected from mutual fund firms representing about one-third of the fund industry’s assets.

TABLE 1

Redemption Rates for Equity, Hybrid, and Bond Funds—Selected Years*Percent of Average Fund Assets*

Year	Asset-Weighted Average	25 th Percentile	Median	75 th Percentile	Number of Funds
Equity & Hybrid					
1995	28	14	25	44	2,117
2000	40	21	36	65	3,952
2005	23	17	25	37	4,714
2006	23	17	26	37	4,813
Bond					
1995	30	16	24	42	1,993
2000	36	21	31	46	1,996
2005	28	15	24	37	1,937
2006	27	16	24	36	1,904

INVESTOR DEMAND FOR LOW-COST FUNDS

Another market force that leads to strong competition in the fund industry is the demand by fund shareholders for low-cost funds. Investors, with the help of 401(k) plan sponsors, financial advisers, and fund information services, can search for and make informed selections based on price. For example, 401(k) plan fiduciaries place substantial market pressure on fund companies to provide performance and service at the lowest possible cost.²⁹

²⁹ The average total expense ratio incurred by 401(k) investors in stock funds was 0.76 percent in 2005, about half of the 1.54 percent simple average for all stock funds and lower than the industry-wide asset-weighted average of 0.91 percent. "The Economics of Providing 401(k) Plans: Services, Fees, and Expenses," *ICI Fundamentals*, 2006. (<http://www.ici.org/pdf/fm-v15n7.pdf>)

Aggregate fund flows demonstrate that investors gravitate to low-cost funds. Cumulatively since 1995, fund shareholders invested about 70 percent of their total net new cash in stock, bond, and hybrid funds with fees in the lowest quartile of their investment group in any given year (Table 2).³⁰ Funds that had fees at the bottom half of the industry attracted almost 85 percent of total net inflow over the same period. In contrast, funds with fees in the top quartile received less than 4 percent of total net new cash.³¹

TABLE 2

Net New Cash to Funds with Operating Expense Ratios in the Lowest Quartile—1996–2006
Billions of Dollars

Investment Objective	Operating Expense Ratios < 25 th Percentile		Total Net New Cash Flow
	Net New Cash Flow	Percent of Total	
Aggressive Growth	\$132.6	59%	\$224.5
Growth	\$189.0	51%	\$368.2
Sector	\$19.7	25%	\$78.6
Growth & Income	\$248.1	94%	\$264.9
Income Equity	\$40.5	74%	\$55.1
International Equity	\$263.5	71%	\$373.6
Hybrid	\$102.4	81%	\$127.0
Bond	\$262.0	91%	\$287.8
Total	\$1,257.8	71%	\$1,779.7

ADVISERS' INCENTIVES TO PROTECT THEIR REPUTATIONS

The *Literature Review* briefly touches on research showing that damage to an adviser's reputation can also affect the adviser's ability to attract and retain shareholder dollars.³² We agree that reputational risk gives advisers a strong incentive to fulfill their fiduciary duties to investors. For example, a recent paper examined the response of flows to funds named in *Wall Street Journal* reports as subject to investigation or sanctions by a state or federal agency.³³ The authors found that investors severely punished named fund firms through significant redemptions of shares. According to the authors, these funds lost in total almost 20 percent of their assets in the year following being named. In addition, the authors' results show that fund families with named funds experienced net outflows ranging from 7 percent to 15 percent of the aggregate assets of fund complex assets.³⁴

³⁰ Net new cash flow is defined as the sale of fund shares (including exchange sales) minus redemptions of fund shares (including exchange redemptions). Sales and redemptions of shares attributable to mergers, liquidations, dividend and capital gain distributions and reinvestments are excluded from these measures. Operating expense ratios are calculated by subtracting the 12b-1 fees from total expense ratios to remove the expenses that fund investors pay for the services provided to them by brokers and financial planners. This measure captures the fees and expenses associated with operating the fund (*See* Bergstresser, Chalmers, and Tufano (2006) for a discussion of the methodology). Fund expense data were obtained from annual data feeds from Lipper beginning in 1996 and reflect all funds tracked by Lipper in each year. Lipper does not track mutual funds held through variable annuities. The total net new cash flow reported in Table 2 represents 91 percent of the net new cash flow to long-term mutual funds not held in variable annuities, as measured by the Institute for the years 1996 through 2006.

³¹ Academic research in recent years has found that lower fund fees are associated with larger inflows and growth in market share of the firms with low fees. *See*, Nanda, Wang, and Zheng (2004), and Khorana and Servaes (2005).

³² *See* Gervais, Lynch, and Musto (2005), and Chevalier and Ellison (1999).

³³ *See* Choi and Kahan (2006).

³⁴ Reputation effects continue to weigh on many fund groups whose funds were cited in the media as being subject to investigation or sanctions by a state or federal agency. Thirteen of the 20 fund groups with the largest stock and bond fund net cash outflows in 2006 had been identified in this way.

III. BENEFITS ASSOCIATED WITH THE BOARD INDEPENDENCE REQUIREMENTS

The next step in examining the need for a rule is to analyze its benefits. The *Literature Review* found that academic studies offer little support for the view that requiring an independent chair would improve mutual fund governance; it also found limited and at times contradictory evidence that more independent boards are beneficial to funds and their shareholders. We concur with these broad findings.

INDEPENDENT CHAIR REQUIREMENT

The *Literature Review* cites three studies that have looked specifically at the benefits of an independent chair. These studies examine the effects of an independent chair on fund expenses, fund returns, and the likelihood that the fund would be involved in a lawsuit. A fourth cited paper has examined whether funds with independent chairs are more likely to approve mergers of funds. We conclude that, taken together, these studies find no compelling evidence that funds with independent chairs are better governed than funds without independent chairs (Table 3), supporting the Institute’s position that the choice of the chair should be left to the members of the board.³⁵

TABLE 3

Would Requiring an Independent Chair Benefit Mutual Fund Shareholders?

Summary of statistical evidence from recent studies

Measure	Research Studies ¹			
	Bobroff and Mack	Ferris and Yan	Meschke	Khorana, Tufano, and Wedge
Fees and Expenses: <i>Are fees lower for funds with an independent chair?</i>				
Expense ratio	No; higher fees	No	Yes	
Expense ratio plus amortized front load		No	Yes	
Expense ratio less 12b-1 fees	No; equal fees	No		
Management fee			No; higher fees	
Returns: <i>Are fund returns higher with an independent chair?</i>	No; lower		No; perhaps lower	
Legal Proceedings: <i>Is there a smaller chance of being involved in legal proceedings with an independent chair?</i>		No	No	
Mergers: <i>Do funds with an independent chair approve mergers faster?</i>				No

¹ In the table, “No” means study finds no statistical evidence of benefit; “Yes” means study finds consistent statistical evidence of benefit.

³⁵ See Letter from Elizabeth Krentzman, General Counsel, Investment Company Institute, to Nancy M. Morris, Secretary, Securities and Exchange Commission, dated August 21, 2006. (http://www.ici.org/statements/cmltr/o6_sec_gov_com.html)

Fees and Expenses. The *Literature Review* discusses three papers that examine whether funds with independent chairs have had lower fees than funds without independent chairs. The first paper, the Bobroff and Mack (2004) study, finds that funds with independent chairs have had higher expense ratios on average. As they point out, this likely owes to differences in distribution costs. Net of 12b-1 fees, Bobroff and Mack find that expense ratios are about the same for the two groups of funds.

The second paper, the Ferris and Yan (2005) study, uses three different measures of fees: expense ratio, expense ratio plus amortized load, and expense ratio less 12b-1 fees (which measures the operating expenses of a fund net of distribution charges). Ferris and Yan find no evidence that funds with independent chairs have lower fees.

The third paper, by Meschke (2006), involves a similar analysis, studying two of the same expense measures used by Ferris and Yan, as well as also fund management fees. Meschke finds that funds with independent chairs have slightly lower total expenses than funds without independent chairs. On the other hand, Meschke finds that funds with independent chairs have *higher* management fees and, perhaps, *lower* fund returns than funds without independent chairs. The author concludes that, overall, his results offer little evidence in support of the proposed board independence requirements.

Returns. Bobroff and Mack and Meschke each examine the association between independent chairs and fund returns. Both studies find that independent chairs are associated with lower fund returns, suggesting a negative effect of the proposed governance structure. As Bobroff and Mack note, this is likely because, at the time they conducted their study, funds with independent chairs were primarily load funds. The presence of 12b-1 fees raised the expense ratios of these funds and lowered their returns relative to those of no-load funds.

Legal Proceedings. Two of the papers included in the *Literature Review* (Ferris and Yan; Meschke) examined whether funds with independent chairs were less likely to be involved in regulatory enforcement or other legal proceedings, such as those related to market timing and late trading. Neither paper concluded that funds with independent chairs were less likely to be involved in such proceedings.

Mergers. The *Literature Review* cites one paper (Khorana, Tufano, and Wedge) that examines whether board structure influences the relationship between fund performance and the likelihood of fund mergers, either within or across fund families. The authors surmise that independent chairs, if more effective, should be quicker to merge underperforming funds out of existence. They found no evidence to support this hypothesis.

STATISTICAL POWER OF THE TESTS FOR THE INDEPENDENT CHAIR REQUIREMENT

The *Power Study* acknowledges that empirical studies have tried but failed to find statistical evidence that requiring an independent chair would benefit fund shareholders, either through better fund performance or lower expense ratios. The *Power Study* discusses thoughtfully and carefully why this might be.

One possibility is that *there is no relationship* between board chair status and fund performance (or fund expense ratios). This explanation is consistent with the Institute's view that there is no "one-size-fits-all" governance structure and, thus, the choice of an independent chair is best left to the fund's board of directors.

A second possibility cited by the *Power Study* is that limitations of data and statistical analysis may prevent researchers from finding a link between board chair status and fund performance, *even if such a relationship exists and is economically significant*. The *Power Study* argues that variability in fund returns—owing to factors such as market performance, sector weightings, or portfolio manager choices, for instance—could easily hide economically significant superior performance by funds with independent board chairs. The *Power Study* offers analysis supporting this second possibility.

These two possibilities potentially have very different implications for policy. For this reason, it is worth highlighting certain aspects of the *Power Study*. We agree that variability in fund returns can make it difficult to determine whether better performance of a particular fund is attributable to portfolio manager ability, sheer luck, or other factors. Nevertheless, the analysis in the *Power Study* does not convincingly make the case that studies that have asked whether an independent board chair would benefit fund shareholders have been hampered by a lack of data or the limits of statistical analysis.

One example illustrates why the *Power Study* is not convincing on this point. The *Power Study* offers a hypothetical example, which makes two assumptions: first, funds with independent chairs outperform funds without independent chairs by 1 percent to 5 percent per year and, second, returns vary across funds in the industry by 12 percent per year. Given these assumptions, the *Power Study* shows that researchers are not highly likely to conclude statistically that (in this hypothetical example) an independent chair has significant benefits to shareholders in terms of better performance. While the *Power Study*'s statistical analysis of this example is sound, we are skeptical that the example is realistic. If funds could boost their returns by 1 percent to 5 percent per year by electing an independent chair, all statistical issues aside, it seems likely that market participants would have taken note long ago and pushed more funds in that direction.

In addition, we believe that the examples in the *Power Study* understate the strength of the statistical tests in Bobroff and Mack, Ferris and Yan, and Meschke. For example, Ferris and Yan found no statistical evidence that funds with independent chairs have lower expense ratios. The *Power Study* implicitly suggests that the authors simply may have had too little data (or too “noisy” data) to find some hidden substantial benefits of an independent chair. In fact, as shown in Appendix B of this review, that is not the case. The Ferris and Yan study was sufficiently “powerful” to find such a relationship if one existed.

In short, we believe that existing studies have found no benefit to having an independent chair because *there is no consistent relationship* between board chair status and fund performance or expense ratios. We interpret this lack of proven benefits as indicating that there is no reason to believe one approach is preferable to another.

75 PERCENT BOARD INDEPENDENCE REQUIREMENT

The *Literature Review* examines the evidence on whether increasing the required proportion of independent directors benefits fund shareholders. Its Executive Summary states that “boards with a greater proportion of independent directors are more likely to negotiate and approve lower fees, merge poorly performing funds more quickly or provide greater investor protections from late-trading and market timing.” This statement could be read as indicating that studies have consistently found that an increasingly independent board is beneficial to shareholders. The *Literature Review* is careful, however, to qualify and substantially temper that interpretation.

We share this more nuanced view. Available studies offer little consistent evidence that a higher proportion of independent fund directors benefits fund shareholders, at least once that proportion has reached some relatively high level (Table 4). As a result, the evidence does not indicate that a 75 percent independence requirement is superior to the two-thirds supermajority requirement that the Institute supports.³⁶

TABLE 4

Would Requiring a Higher Proportion of Independent Directors Benefit Mutual Fund Shareholders?

Summary of statistical evidence from recent studies

Measure	Research Studies ¹				
	Tufano and Sevick	Ferris and Yan	Meschke	Khorana, Tufano, and Wedge	Zitzewitz
Fees and Expenses:					
<i>Are fees lower for funds with a higher proportion of independent directors?</i>					
Expense ratio	Yes	Inconclusive	Inconclusive		
Expense ratio plus amortized front-end load		No	No		
Expense ratio less 12b-1 fees		Inconclusive	No		
Management fee			No		
Returns:					
<i>Are fund returns higher for funds with a higher proportion of independent directors?</i>					
			No; lower		
Legal Proceedings:					
<i>Is there a smaller chance of being involved in legal proceedings with a higher proportion of independent directors?</i>					
		No	No; perhaps higher		
Mergers:					
<i>Do funds with a higher proportion of independent directors approve mergers faster?</i>					
				Inconclusive	
Redemption Fees:					
<i>Are funds with a higher proportion of independent directors more likely to have redemption fees for short-term trading?</i>					
					Yes
¹ In the table, “No” means study finds no statistical evidence of benefit; “Yes” means study finds consistent statistical evidence of benefit; “Inconclusive” means study finds conflicting statistical evidence of benefit.					

³⁶ *Id.*

Fees and Expenses. The *Literature Review* discusses four papers that study the influence of board independence on fund fees. The earliest of these, by Tufano and Sevick (1997), found that greater board independence is strongly linked to lower fund fees.³⁷ The *Literature Review*, however, suggests that these results depend on whether funds are analyzed at the individual level or at the family level. In addition, the other studies that the *Literature Review* cites on this topic—Ferris and Yan and Meschke—reach a different conclusion: they find little consistent evidence that a higher proportion of independent fund directors leads to lower fund fees.³⁸ One reason, as Ferris and Yan and the *Literature Review* point out, may be that it is difficult to assess the influence of board independence on fund fees because most funds already have a very high proportion of independent directors.³⁹

Returns. Meschke's paper examined the issue of whether greater board independence is associated with higher fund returns. If anything, he finds evidence to the contrary: a higher proportion of independent directors is statistically related to lower fund returns.

Legal Proceedings. Two of the papers discussed in the *Literature Review* (Ferris and Yan; Meschke) study whether funds with a higher proportion of independent directors are less likely to be involved in regulatory enforcement actions or other legal proceedings, such as those related to market timing or late trading. These papers found no evidence that funds with a higher proportion of independent directors were less likely to be involved in such proceedings.

Mergers. One of the papers discussed in the *Literature Review* (Khorana, Tufano, and Wedge) reports some evidence that greater board independence is associated with less willingness by boards to tolerate poor performance before initiating a fund merger. These findings, however, only hold for mergers across fund families, and not among funds managed by the same adviser. Mergers across fund families typically occur when the advisers are owned by the same parent company or after the merger of two parent companies. The seemingly willingness of more independent boards to merge underperforming funds across fund families may not be caused by those boards with greater independence. Instead, it is very possible that this greater willingness to merge funds simply reflects the business decision of the surviving parent firm to eliminate overlapping funds by merging away underperforming or duplicative funds.

Redemption Fees. A paper by Zitzewitz (2002) finds that funds with more independent boards are more likely to adopt redemption fees to discourage short-term trading.

³⁷ A paper by Del Guercio, Dann, and Partch (2003) reaches a similar conclusion for closed-end funds.

³⁸ Ferris and Yan (2005) examine the influence of board independence on fund fees at a point in time, 2002. They report various results some of which suggest that greater board independence is consistent with higher fund fees, and others of which indicate greater board independence is associated with lower fees. They conclude that there is little support for the view that greater board independence is associated with lower fees. Meschke (2006) uses data from 1995 to 2004. He finds that the relationship between board independence and fund fees varies through time.

³⁹ According to the Investment Company Institute and Independent Directors Council, *Directors' Practices Study: Practices and Compensation* (August 2006), 80 percent of fund boards meet the 75 percent independence standard, and 93 percent meet the two-thirds standard. These results reflect the responses of 147 fund complexes in the study that utilize a unitary board structure (one board overseeing all the funds in the complex) and exclude complexes that utilize a cluster structure (separate boards overseeing groups of funds within the complex).

IV. COSTS OF IMPLEMENTING THE REQUIREMENTS

The final step in examining the economic rationale for a rule is to examine its explicit and implicit costs. The *Literature Review* does not discuss costs of the board independence requirements, but other SEC releases have included information about costs. As noted in the Institute's previous comments to the SEC, confidential data on independent director compensation collected by the Institute and the Independent Directors Council are consistent with the SEC estimates of the direct compensation costs of the board independence requirements.⁴⁰ We remain concerned, however, about the impact of the costs of the board independence requirements on small fund advisers.

As we have indicated previously, small fund advisers are likely to bear a disproportionate impact from the costs of the board independence requirements. Many small fund advisers will feel compelled to absorb the additional costs from the requirements which, along with the costs of other new regulatory requirements, will squeeze profit margins further for small fund advisers and could cause them to exit the mutual fund industry for other more profitable lines of business.⁴¹

One implicit cost of the board independence requirements is the creation of additional barriers and disincentives to enter the mutual fund industry. Founders of fund advisers often act as chairs of the funds they establish, particularly in the first years when few other people are intimately familiar with the company. Company founders often have invested significant personal capital in the business. Such individuals have concerns about the requirement that the board chair may be an individual who may not have experience in the fund industry and may be unfamiliar with the company. Moreover, nascent research indicates that overly burdensome regulations stifle the creation of new firms and inhibit growth of economic activity.⁴²

V. CONCLUSION

The OEA studies provide valuable insight into the SEC staff's considerations of the need for the board independence requirements and their potential benefits. These studies provide no compelling evidence that the board independence requirements are necessary. To the extent that the market imperfections cited in the *Literature Review* are economically meaningful, existing SEC regulations help align the interests of fund advisers and investors. The private sector has in many cases also responded to help mitigate potential conflicts. Finally, powerful market forces further align the interests of advisers and shareholders, by spurring fund advisers to compete on fees and performance and by providing incentives for advisers to protect their reputations. If there are any residual market imperfections, there is no evidence that the board independence requirements would effectively address them.

⁴⁰ See Letter from Members of the Small Funds Committee, Investment Company Institute, to Nancy M. Morris, Secretary, Securities and Exchange Commission, dated August 21, 2006. (http://www.ici.org/statements/cmltr/o6_sec_gov_small_com.html)

⁴¹ As noted above, the number of mutual fund sponsors has declined by approximately 20 percent since 2000. While it is difficult to disentangle the specific effect of increased regulatory compliance costs from heightened competitive pressures and the downturn in the financial markets on the decision to exit the industry, changes in regulatory costs are a consideration.

⁴² Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2002), and Klapper, Laeven, and Rajan (2006).

Existing research provides no compelling evidence that the board independence requirements would provide any meaningful benefits to investors. Academic studies find no consistent evidence demonstrating the benefits of an independent chair. While there is some evidence that increasing the percentage of independent directors might be beneficial, the available studies do not provide any insight on whether a higher proportion of independent fund directors benefits shareholders, at least once that proportion has reached some relatively high level.

Finally, these requirements would have attendant costs, as noted in other SEC releases. Institute analysis has shown that these costs would be borne disproportionately by smaller fund advisers. These direct and indirect costs, such as increased entrepreneurial risk, could increase barriers to entry to the detriment of fund shareholders.

All told, existing evidence does not provide an economic rationale for the board independence requirements.

APPENDIX A: FRAMEWORK FOR ECONOMIC ANALYSIS IN POLICYMAKING

Three considerations generally are key elements in the economic analysis of a rule proposal. The first consideration is the identification of the specific market imperfection that the rule or regulation is seeking to address. Without a market imperfection, any intervention on the part of the regulator would have negative consequences for efficiency, competition, and capital formation owing to the disruption of the orderly functioning of the market. The next consideration is the benefits associated with the rule. Finally, these benefits must be weighed against the costs of implementing the rule. If the costs outweigh the benefits of implementing the rule, market participants will be made worse off by the rule and the overall efficiency of the market could be hampered. Unnecessary regulation only serves to increase barriers of entry thereby reducing competition and capital formation in the industry.

IDENTIFYING THE NEED FOR A RULE

The textbook example of a perfectly efficient market where firms produce what consumers want at the lowest possible price and at the lowest possible cost is a pedagogical tool to teach how markets can efficiently allocate goods, services, and resources within an economy. In practice, virtually all markets are imperfect and to some extent depart from the textbook example.

Market imperfections fall into three general categories:

(1) *Market Power*. A monopoly is the extreme case of a firm with market power, but most markets, to some degree, have firms that differentiate themselves and command some premium for their particular goods or services. Natural barriers can keep firms from entering a market and competing with the existing firms and government regulation can create barriers to entry by imposing prohibitive costs that prevent firms from entering an industry.

(2) *Externalities*. Externalities are costs or benefits of producing or consuming a good that impact consumers and producers outside of the market for that good. These “spillover” effects result in the market price of the good or service not reflecting the full costs of production or the full benefits of its consumption. Externalities can have either a positive or a negative impact on the well-being of other people or firms. The classic example of a negative externality is pollution. The cost to society from pollution often is not factored into market prices and, thus, the market economy produces too much of the polluting goods. Regulatory intervention attempts to incorporate the cost of pollution in the prices of the goods. The degree of regulation remains an issue of balancing the economic and social costs and benefits associated with the externality.

(3) *Principal-Agent Problem*. The principal-agent problem occurs when consumers and businesses do not have the same information about the good or service being bought and sold, and is sometimes referred to as a conflict of interest. These conflicts can arise, for example, when an investor assigns someone to make decisions on his or her behalf (*i.e.*, the agent). If the interests of the investor and agent are not perfectly aligned, the agent will have competing economic interests that might lead it to take actions to the detriment of the investor. If the investor can completely oversee what the agent is doing on the investor’s behalf, the investor will know if his or her interests are being harmed. But if the investor cannot fully observe all of the agent’s actions, the agent could harm the investor without the investor’s knowledge. Much of the basis for the regulation of the financial markets is based on setting up rules to reduce the potential for these types of conflicts, supporting the alignment of interests, and putting in place mechanisms to oversee the actions of the agent.

Given that regulators can find imperfections in any market, they consider a variety of questions in the analysis of a market imperfection and the need for a rule.⁴³ This preliminary analysis would include:

- Identifying the market affected by the proposed rule;
- Isolating the source of the market imperfection;
- Determining whether the market is providing effective solutions to the problem;
- Identifying existing rules and regulations that are intended to address the imperfection; and
- Determining if there is any residual inefficiency in the market that can be effectively addressed by the proposed rule.

Framing an analysis in this manner helps to clarify the purpose of the proposed rule and whether the rule will increase the efficiency of the market.

ECONOMIC BENEFITS OF A PROPOSED RULE

Because all markets are imperfect to some degree, the presence of a market imperfection does not, in and of itself, justify regulation or some other intervention. An important aspect in assessing the economic impact of a rule is to determine the economic benefits that would be derived from the rule. Ineffective or redundant rules with no benefits have the potential to create unnecessary barriers to entry that dampen competition and capital formation.

The identification and measurement of benefits from financial regulation often is a difficult and challenging task. A recent report helps in this regard by outlining a structure that focuses on measuring the effect of regulation on market outcomes and the means through which regulation produces improvements in market outcomes.⁴⁴ Often, this process requires explicitly describing the linkages between the regulation, the market participants, and the market. Once these linkages are defined, it is possible to estimate the extent to which a rule is likely to contribute to an improvement in the market outcome by using some methodology such as statistical or econometric techniques.⁴⁵

⁴³ See *e.g.*, “Executive Order of the President 12866—Regulatory Planning and Review,” which as amended on January 18, 2007, includes the requirement that “Each agency shall identify in writing the specific market failure... or other specific problem it intends to address... as well as assess the significance of the problem, to enable assessment of whether any new regulation is warranted.” See also “Economic Analysis of Federal Regulation Under Executive Order 12866,” Office of Management and Budget, January 11, 1996; “Market Failure Analysis and High Level Cost Benefit Analysis,” an internal guide for policymakers preparing papers for the Regulatory Policy Committee at the Financial Services Authority (September 2006). We recognize that Executive Order 12866 does not apply to independent agencies, such as the SEC.

⁴⁴ See “A Framework for Assessing the Benefits of Financial Regulation,” a report prepared for the Financial Services Authority by Oxera Consulting Ltd. (June 2006).

⁴⁵ It is important to note that any assessment of benefits should consider the *actual* behavior of the market participants and not a theoretical standard of behavior.

ECONOMIC COSTS OF A PROPOSED RULE

Ultimately, consumers bear the burden of higher regulatory costs, either directly through higher market prices or indirectly through reductions in product choice or competition in the industry.⁴⁶ As a result, one basic principle of regulatory intervention is that the expected costs paid by consumers for the additional regulation must be commensurate with the expected benefits consumers receive from additional protection. Regulations that raise costs but provide little or no benefits are harmful to consumers.

Usually, the expected costs of complying with a proposed rule are easier to identify and estimate than expected benefits. Industry contacts often can provide valuable information regarding the operational requirements and direct costs for compliance with the proposed rule. Indirect costs, such as opportunity costs, and adverse impacts on quality, quantity, the variety of product transactions, and the efficiency of competition also are important to consider and estimate. Statistical or econometric models that describe the incentives and behavior of market participants can be helpful in estimating any indirect costs.

⁴⁶ Generally, firms initially incur all of the regulatory compliance costs from new rules and regulations. The ability for producers to pass these increased costs on to consumers depends largely on the sensitivity of consumers to higher prices and the availability of close substitute products. In some cases, firms will absorb part of the higher regulatory costs out of their profit margins to maintain their customer base. Eventually, producers whose profit margins are squeezed by ever-increasing regulatory costs will exit the industry and new entrepreneurs facing a lower rate of return on their capital will be discouraged from entering. Thus, even if consumers did not initially pay for higher regulatory costs in market prices, they will pay higher market prices through a reduction of the choice of products available to them and through a reduction in the level of competition in the industry, in the long run.

APPENDIX B: ANALYSIS OF POWER TESTS

INTRODUCTION

The *Power Study* presents hypothetical examples that illustrate how too little data or the limits of statistical analysis might have prevented researchers from finding a link between board chair status and fund performance, *even if such a relationship exists and is economically very significant*. We are cognizant of and sympathetic with the concerns voiced in the OEA's *Power Study*. However, we are not convinced that they play a meaningful role in the three studies highlighted in the *Literature Review* (Bobroff and Mack, 2004; Ferris and Yan, 2005; Meschke, 2006).

WHAT IS STATISTICAL POWER?

In statistical tests, a researcher forms a “null hypothesis” and an “alternative hypothesis.” As an illustration, a defendant in a criminal trial might be either not guilty (the “null hypothesis”) or guilty (“the alternative hypothesis”). In statistical analyses, as in the legal system, there must be compelling evidence to reject the null hypothesis (the defendant is presumed innocent unless there is compelling evidence to the contrary). Suppose, however, that we are unable to reject a null hypothesis (the jury does not find the defendant guilty). That finding may be because the null hypothesis is true (the defendant is truly innocent) or there is not enough evidence to conclude that the null hypothesis is false (the defendant is in fact guilty but the evidence was not convincing).

Power, as defined in statistics, is the ability of a statistical test to detect a relationship if one exists (to be able to conclude that the defendant is guilty when he is in fact guilty). Power depends on a number of features, such as the particular statistical technique being used, the quality and amount of data, and other factors. It is desirable to have “powerful” statistical tests, those that are highly likely to detect a relationship if one exists. With limited or “noisy” data, it might not be possible to detect relationships that exist in which case a statistical analysis is said to have low “power.” Low “power” is a relevant concern only when one is unable to reject the null hypothesis. If one can reject the null hypothesis, then by definition, low power is irrelevant (if there was sufficient evidence to convict the defendant, then the evidence was by definition strong enough to convict).

The *Power Study* suggests that variability in fund returns—due to market performance, sector weighting, portfolio manager choices and so forth—is so large that it may hide benefits from having an independent chair, even if such benefits are economically substantial. In other words, the *Power Study* suggests that the statistical tests used by researchers have low power (the defendant is guilty but the evidence is too weak to convict).

While this is a legitimate concern, our analysis suggests that low statistical power was unlikely to have had a significant influence on the studies by Bobroff and Mack, Ferris and Yan, and Meschke.

STATISTICAL POWER OF RESEARCH STUDIES

Bobroff and Mack: The authors examine the relationship between fund performance and board chair status. They find statistically significant evidence that funds with independent chairs have had *weaker* performance than funds without independent chairs. In this case, low statistical power is irrelevant because the authors were able to reject the null hypothesis. Indeed, given the evidence in the Bobroff and Mack study, one can conclude *statistically* that funds with independent chairs have weaker performance than funds without independent chairs. Bobroff and Mack, however, are cautious. They interpret this evidence as only indicating that there is no reason to believe that funds with independent chairs will offer superior performance, but this is quite different from saying that they were unable to find any statistical evidence one way or another.

Ferris and Yan: The authors find no statistical evidence that funds with independent chairs have lower expense ratios than funds without independent chairs.⁴⁷ This could be either because their statistical tests had “low power” or because there is no relationship. The *Power Study* implies that low statistical power may have been a factor.

Our analysis, however, indicates that Ferris and Yan’s statistical tests were likely powerful enough to determine that funds with independent chairs had significantly, or even modestly, lower fees on average, if that were indeed the case. Using a statistical result reported in Andrews (1989), we calculate that the Ferris and Yan study should have been able to distinguish with very high probability (95 percent) differences as small as 15 basis points in the expense ratios of funds with independent chairs, if such differences existed.⁴⁸ Smaller differences (less than 5 basis points) would have been more difficult to detect using Ferris and Yan’s methods. If *average* differences in expense ratios are indeed so small across the two groups of funds, that would support the Institute’s position that the choice of an independent chair is best left to the fund’s board. Fund boards arguably will have better information and better ability than statistical tests to decide whether one approach or the other is best for a *particular* fund or group of funds if differences in expense ratios are, on average, only a few basis points.

⁴⁷ In technical terms, they test the null hypothesis that, all else equal, funds without independent chairs have identical expense ratios against the alternative hypothesis that they do not. The authors “fail to reject the null hypothesis” that the two groups of funds have identical expense ratios.

⁴⁸ For example, in one regression Ferris and Yan report that the estimated influence of the independent chair on fund family expenses is -.057 percent, with a t-statistic of 1.25 (see Ferris and Yan, table 5, column 4, under Family Average (WLS)). The low t-statistic indicates that the estimate is not statistically different from zero. From this, we can deduce that the standard error for this coefficient is .0456 (.057/1.25). Tables in Andrews (1989) allow us to calculate the smallest differences in expense ratios that could be detected correctly with a probability of 95 percent (i.e. with a power of 95 percent): this is 3.605 (from Andrew, 1989, table 1, page 1067, p=.95, q=1) times the standard error of the coefficient (.0456), which gives .164, or 16.4 basis points. Thus, in this case, Ferris and Yan’s results apparently can detect with very high probability whether there are average differences in expense ratios between funds with independent chairs and those without independent chairs of as little as 16.4 basis points. Power calculations for other regressions reported by Ferris and Yan generally give similar results. But one regression (see Ferris and Yan, table 5, column 1, under Pool (OLS)) suggests that Ferris and Yan could detect with 95 percent probability differences as small as 5 basis points in the expense ratios of the two groups (3.605 x .020/1.45).

Meschke: It is unclear what implications the *Power Study* has for the Meschke study. Meschke finds statistically significant evidence that funds with independent chairs have lower expense ratios than funds without independent chairs.⁴⁹ On the other hand, he also finds statistically significant evidence that funds with independent chairs have higher management fees and lower performance than funds without independent chairs.⁵⁰ Because he rejects the null hypothesis in these cases, low power is again not an issue. What is at issue is whether Meschke's paper can therefore be interpreted as indicating that an independent chair confers benefits. On the basis of these mixed results, Meschke concludes that his "study finds only very limited empirical support" for the board independence requirements.

⁴⁹ This finding is at odds with those of Ferris and Yan, who find no significant difference in the expense ratio of funds with and without independent chairs. Meschke's result may in part reflect inclusion in his analysis of a variable that indicates whether a fund has an independent chair, as well as a variable that indicates whether a fund is bank-related. Before 2004, most funds with independent chairs were also bank-related. Thus, the true effect of independent chair status in Meschke's analysis may be a mix of the effects he reports for the influence of independent chair and bank-related indicators on fund expense ratios. Because he reports negative effects for independent chair and positive effects for funds that are bank-related, the overall effect may on balance be about zero. This would help to explain why Meschke finds rather different results from Ferris and Yan.

⁵¹ Meschke finds statistically significant evidence in four of six results he reports that assess whether equity funds with independent chairs have weaker performance than funds without independent chairs (Meschke, table VIII, panel A, page 41). In the remaining two results for equity funds, he finds no statistically significant difference between the performance of funds with and without independent chairs.

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