Notes

Foreword
1. Irving L. Gartenberg v. Merrill Lynch Asset Management Inc. et al., 694 F.2d 923 (2d Cir. 1982).

Introduction
2. Mutual funds allow investors to pool their money and obtain professional money management in stocks, bonds, and money market investments. This pooling provides the benefits of asset diversification and risk management at a lower cost than what most individuals can achieve by creating and managing their own equivalent portfolios.
3. For convenience we use price and the annual fees mutual fund investors pay interchangeably. Price competition in this sense refers to the fees paid by investors.


9. The 19 funds represent those with assets over $500,000. Closed-end funds dominated investment companies during that era, with open-end funds representing only 2 percent of investment company assets in 1929. Wharton Report, pp. 37–38.


13. A defined benefit plan promises to pay a specified amount upon retirement, generally based on an employee’s years of service and latest year’s level of salary. A defined contribution plan makes no promise of specific payment. Rather, the employee, employer, or both make a tax-deferred contribution that the employee invests in an individual account, which is available at the time of retirement.

14. A fund complex is also known as a fund family. The number of funds within a complex range from two or three to well over 100.

15. There are a few exceptions. After the economic model for this book was developed and tested, a similar model was presented in Zhang, “Mutual Fund Expense Ratios in Market Equilibrium.” For an earlier study, see Baumol et al., *The Economics of Mutual Fund Markets: Competition Versus Regulation*.


17. Jerry N. Jones et al. v. Harris Associates L.P., 527 3d 627 (7th Cir. 2008). In 2009, the eighth circuit ruled that there was merit to both the seventh and second circuits’ approaches to analyzing mutual fund excessive fee cases. John E. Gallus et al. v. Ameriprise Financial 561 F.3d 816 (8th Cir. 2009).

18. The decision distinguished between investment advisers competing on price to manage mutual funds versus competing on price to attract fund investors. The court concluded that only the former was of interest and that advisers did not compete on price to manage mutual funds. Gartenberg, 694 F. 2d at 929.

1. Mutual Fund Industry Growth and Importance in Retirement Plans

2. Ibid., pp. 20, 22; and ICI, 2007 Fact Book, pp. 17, 93.
3. This figure excludes funds that invest in other funds. ICI, 2008 Fact Book, p. 110.
7. Traditional IRAs were created under the Employee Retirement Income Security Act of 1974 (ERISA). SEP IRAs were created under the Revenue Act of 1978. SAP SEP IRAs were created under the Tax Reform Act of 1986, but new SAP SEP IRA plans were prohibited in the Small Business Job Protection Act of 1996 and replaced by SIMPLE retirement plans. ICI, “The Role of IRAs in U.S. Households’ Savings for Retirement, 2008.”
10. IRAs also benefit from rollovers as employees switch employment or retire.

2. Mutual Funds and Charges of Excessive Fees


3. This structure resulted from the IAA of 1940 and the ICA of 1940. However, this type of organizational structure was not always the case. The first open-end mutual fund in this country, the Massachusetts Investors Trust (MIT), provided investment management internally from 1924 to the late 1960s. Near the end of the 1950s, about 10 percent of mutual funds provided investment management internally. Wharton School, *A Study of Mutual Funds*, p. 6. MIT and other internally managed funds converted to external portfolio management in the 1960s. By the early 1970s, most if not all funds used external investment advisers. Thus, in direct competition for investors over an approximately 45-year span, external portfolio management proved more economically efficient for the vast majority of funds and investment advisers.


8. This reasoning can be applied to advisers as well. If the adviser rejects a fee offer as too low, how can it credibly threaten to terminate its agreement and manage a rival fund? It could start a new fund, but not likely displace a rival adviser. The adviser and the fund are generally committed to each other on a long-term basis and must reach a mutually beneficial agreement on fees.

9. Sirri and Tufano, “Competition and Change in the Mutual Fund Industry.” Using large yearly samples of actively and passively managed equity and bond funds from 1993 to 2002, Kuhnen reports the incident of investment adviser hiring and firing. In 1994, approximately 6 percent of the funds’ hired an adviser and in the peak year, 2001, approximately 16 percent fired an adviser. Over the entire period, approximately 21 percent of the funds changed advisers at least once, and some changed two or more times. However, the study did not distinguish between replacing primary and secondary advisers. Kuhnen, “Dynamic Contracting in the Mutual Fund Industry.”


11. The SEC found that investors are deterred from switching to rival funds by having to pay another sales load and possibly a capital gains tax. SEC, *Report on the Public Policy Implications of Investment Company Growth*, p. 126.
12. Ibid., p. 10.
18. The 2003 mutual fund market-timing and late trading scandal, in which preferred customers were allowed to trade at favorable prices after the market closed, was not the first time some mutual funds engaged in this type of selling. Mutual fund timing and other cases in recent years are discussed in Benedict, Murphy, and Robertson, “The Aftermath of the Mutual Fund Crises,” p. 261.
27. SEC, *Report on the Public Policy Implications of Investment Company Growth*, p. 83. Most of the cases were settled after the courts dismissed three cases. In some cases, the adviser agreed to a modest reduction in fees based on a sliding scale related to fund asset size.
32. Ibid., p. 52.
33. Ibid., p. 144.
34. Section 36(b) of the ICA of 1940 states that “the investment adviser . . . shall be deemed to have a fiduciary duty with respect to the receipt of compensation of services, or of payments of a material nature, paid by such registered investment company, or by the security holders thereof, to such investment
adviser or any affiliated person of such investment adviser. An action may be brought under this subsection by the Commission, or by a security holder of such registered investment company on behalf of the company, against such investment adviser, . . . for breach of fiduciary duty in respect of such compensation or payments.”

35. Courts have defined or described fiduciary duty in various ways; for example (1) undivided loyalty implicit in the fiduciary bond, Galfand v. Chestnut Corp., 545 F.2d 807, 811 (2d Cir. 1976); (2) the standard of fiduciary duty “is concerned with fairness and equity,” In re Gartenberg, 636 F. 2d 16, 17 (2d Cir. 1980), cert. denied, 101 S. Ct. 1979 (1981); (3) a fiduciary test is “whether or not under all the circumstances the transaction carries the earmarks of an arm’s-length bargain,” Pepper v. Litton, 208 U.S. 295, 306–307 (1939); and (4) in the context of the law of trusts, “A trustee owes an obligation of candor in negotiation, and honesty in performance,” Jones v. Harris, 527 3d at p. 632.


37. GAO, Mutual Funds: Greater Transparency Needed in Disclosures to Investors.


3. Mutual Fund Excessive Fees and the Courts


3. Gartenberg, 694 F. 2d 923.


5. Ibid., pp. 1043–44.

6. Ibid., p. 1044.

7. The appellate court concluded that the difference between using a reasonableness or fiduciary duty test was more semantics than a substantive difference in tests. Gartenberg, F. 2d. at 929.


10. Ibid.

11. Gartenberg, 694 F.2d at 929.


13. Ibid.

14. Gartenberg, 694 F. 2d at 930.
15. Ibid. The court subsequently retreated in part from this position when discussing rivals’ lower fees due to economies of scale by stating the following: “We do not suggest that rates charged by other adviser-managers to other similar funds are not a factor to be taken into account. . . . However, the 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.”


17. There is, however, a market for subadvisers, external portfolio management firms who provide portfolio management services to other funds. At present the use of subadvisers is relatively widespread. The extent of subadviser services at the time of Gartenberg is unclear. Chen, Harrison, and Kubik, “Outsourcing Mutual Fund Management: Firm Boundaries, Incentives and Performance.”

18. Gartenberg, 694 F. 2d at 930.

19. The appellate court based its claim of small and competitively insignificant money market fees on the SEC’s 1966 report, which states, “Cost reductions in the form of lower advisory fees or other cost considerations do not figure significantly in the battle for investor favor” (SEC, *Report on the Public Policy Implications of Investment Company Growth*, p. 126). As discussed earlier, the SEC’s investigation of equity mutual funds in the 1960s found that most funds charged a 0.50 percent fee and there was little variation about that level. Finding that fees were similar across the equity mutual funds it examined, the SEC concluded that fee differences were not significant to investors’ choices.


22. Ibid. As noted earlier, the court stated that all factors must be considered, implying that the seven factors are merely a starting point.


24. The Schuyt court further rejected the economic experts’ testimony because they did not fully address the Gartenberg list of factors for determining the disproportionality of fees. Gertrude B. Schuyt v. Rowe Price Prime Reserve Fund et al., 663 F. Supp. 962, 974, n37, n38, and n39 (1987), affirmed, 835 F. 2d 45 (2d Cir. 1987).


26. Gartenberg, 694 F. 2d at 932.

27. The dispute over fall-out benefits arose again in a second suit filed by Mr. Gartenberg against the Merrill Lynch fund and adviser a few days after he lost
in the original appellate decision. Irving Gartenberg v. Merrill Lynch Asset Management et al., 573 F. Supp. 1293 (1983), 740 F. 2d 190 (2d Cir. 1984). For the second suit, Merrill Lynch hired Peat Marwick, Mitchell & Company to calculate fall-out benefits from commissions, float income, and free credit balances (balances in accounts before being reinvested). Peat Marwick estimated benefits from float and free credit balances, but concluded that it was impossible to estimate commission income attributable to fall-out benefits, which the plaintiff’s expert concurred with (Ibid., p. 1313). Mr. Gartenberg was unable to prove that the measurable fall-out benefits exceeded what would be negotiated through arm’s length bargaining.

28. The SEC argued that capital gains and sales loads prevent mutual fund investors from switching funds. However, capital gains taxes are generally not an issue in short-term money market funds, and money market funds generally carry no sales loads. SEC, Report on the Public Policy Implications of Investment Company Growth, p. 126.


30. This is distinguished from legal monopoly pricing, as may occur occasionally from superior business skill, luck, or government-granted monopolies. Conversely, price can be unfair when it is set too low, below the competitive level, as under monopsony market conditions.


36. Jerry N. Jones et al. v. Harris Associates L.P., 527 F. 3d 627 (7th Cir. 2008). In a motion to rehear the case en banc, which was denied, a strong dissent arguing in favor of retaining the Gartenberg framework was submitted by five judges. Jerry N. Jones et al. v. Harris Associates L.P., 537 F. 3d 728 (7th Cir. 2008).


38. U.S. Supreme Court No. 08-586, Jerry N. Jones et al. v. Harris Associates L.P., On Petition for a Writ of Certiorari to the U.S. Court of Appeals for the 7th Cir. (Nov. 2008) and U.S. Supreme Court, No. 08-586, Grant of Certiorari, 2009 WL 578699 (March 9, 2009). The plaintiffs-respondent in Jones argued
that the proper measure of whether the defendant breached its fiduciary duty is not Gartenberg’s proportionality test, but the difference between the fees Harris’s retail fund investors pay and the fees paid by Harris’s institutional clients. This measure of proposed excess fees is discussed in Chapter 6.

39. The seventh circuit’s Jones decision recognizes that with thousands of mutual fund investment alternatives, ease of entry into mutual funds, and ease of investor mobility between funds, mutual funds come closer to the requirements of an atomistically competitive market than most markets. Jones, 527 F. 3d at 634.

4. Price Competition and the Demand for Mutual Funds

1. Consumer price sensitivity implies consumer choice because evidence of price sensitivity would not exist without consumers’ ability to choose between similar products. Hence, evidence of price sensitivity is generally sufficient to establish the existence of price competition.


6. Economists measure the sensitivity or responsiveness of buyers’ demand to changes in a product’s price by the (own) price elasticity of demand. Price elasticity is measured by the percentage change in quantity demanded relative to a percentage change in price, holding other factors constant. When demand is price-elastic, demand changes more than proportionately to the change in price, so price elasticity is greater than 1. When demand is price-inelastic, demand changes less than proportionately to a change in price, so price elasticity is less than 1. The more price-elastic demand, or the more price elasticity is greater than 1, the more responsive buyers are to price changes; conversely, the more price-inelastic demand (that is, less than 1), the less responsive buyers are to price changes. When demand is price-elastic, a firm will find that by raising its price relative to the price of a substitute product, it will lose customers and
its profits will fall, and therefore will refrain from doing so in the future. The converse is true when demand is price-inelastic.

7. Two exceptions in Panel B are the studies by Walsh, “The Costs and Benefits to Fund Shareholders of 12b-1 Plans,” and Zhang, “Mutual Fund Expense Ratios in Market Equilibrium.” Walsh properly measures new money growth relative to changes in expense ratios, finding price-elastic demand. However, she does not measure front-end loads and 12b-1 fees in changes, and finds them to be highly price-inelastic. Zhang uses a nested logic model with instrumental variables applied to a sample of growth funds and regresses instrumental changes in market share in assets and changes in money inflows on expense ratios and other variables. He finds a highly price sensitive relationship with expense ratios and both of his dependent variables.


9. Cross-price elasticity measures the price elasticity or price sensitivity between two products. It measures what happens to the demand for a product when the price of a complementary product (used jointly with the product at issue) or rival product is raised or lowered, holding other factors constant. When cross-price elasticity equals zero, the products are neither substitutes nor complementary to one another. When cross-price elasticity is positive, the products are substitutes because a price rise in one product increases the demand for the second product. Conversely, if the cross-price elasticity is negative, the products are complementary to one another, used jointly, such as bread and butter.


11. Absent data on individual investor choices, the models must adapt to using marketwide data. In addition, because not all characteristics of a product sought by consumers are observable, nor are all investor preferences, the demand and supply analyses require a model indicating the probability that investors select a given product. Discrete choice models are well suited for use under these conditions. The models are designed to analyze outcomes in markets in which consumers make a series of choices in an attempt to maximize their well-being.

12. Strategic Insight, Simfund, Mutual Fund Database, 2008. See Table 4.2.

13. The economics and finance literature is replete with studies showing that investors seemingly behave at times contrary to their best interest. Bailey, Kumar, and Ng, “Behavioral Biases and Mutual Fund Clienteles.” Other studies find mutual fund investors using information efficiently, in their own best interest. Ippolito, “Consumer Reaction to Measures of Poor Quality,” pp. 45–70; and

14. This premise is in contrast to studies assuming little investor mobility. Evidence of investor fund mobility is presented in Chapter 6, showing substantial annual investor asset redemptions.

15. Fund advisers do not necessarily maximize the asset size of various funds. Funds are frequently closed to new investors when the fund reaches a certain size. One explanation given for closing funds is to maintain their ability to sustain strong performance for existing shareholders. Other funds may remain small by choice based on their investment strategy, such as a specialty sector, specializing in small-cap funds, or serving a narrow niche class of investors.

16. In economists’ terms, each firm has its own downward-sloping demand curve that is conditional on the presence of reasonably close substitute funds and complexes.

17. The regression demand equation is a simplified version of the demand model shown in the appendix to this chapter. The economic model in the appendix also incorporates the cost to provide funds. However, lacking cost data on funds, we are limited to estimating the demand for mutual funds.

18. In many cases, deferred load charges are reduced the longer an investor owns a fund, until in five to seven years on average the charges are often reduced to zero. Nevertheless, we used deferred load charges because the data on upfront load charges in the Simfund data set were too incomplete to be used.

19. We derive this number by taking the total number of funds, 1,161, and dividing by 23 complexes and then by two channels per complex, yielding 25.24 as the average number of funds within a complex/distribution channel. The average market share for these funds is the reciprocal of 25.24, or about 4.0 percent. We use two channels in the example because a review of the number of channels used by the top 20 complexes in our sample shows that most concentrate their sales in no more than two channels of distribution, such as the direct and sales force channels.

20. We calculate this amount as follows. When a single fund increases its fees by 1.0 percent, its cluster (complex/distribution channel) loses 0.08 percent in assets. However, the remaining funds in the complex but in other distribution channels gain 0.022 percent because of cross-price elasticity substitution effects, as seen from Table 4.3. Assuming the two distribution channels split the assets 50-50, the profit implication is calculated by multiplying the loss in assets, 0.08 percent, by 50 percent and the gain in assets of 0.022 percent by 50 percent, yielding a net asset loss of 0.03 percent.

21. The way the model is solved (backward-looking) ensures that the price strategy is optimal and each mutual fund cannot increase its profits by unilaterally changing fees once it starts selling fund shares. The firms set their optimal prices at time $T$ and then look back one period, to $T - 1$, set optimal prices at $T - 1$ that are consistent with the prices set in $T$, using all the information up to $T - 1$, and so
forth, back to the beginning period. This ensures that the firms’ actions are in Nash equilibrium, meaning that given the actions of rivals, a firm cannot improve its profits by engaging in other than its equilibrium action. Thus, expected and actual profits are maximized at the outset by selecting the optimal price structure (see Tirole, *The Theory of Industrial Organization*, p. 206).

22. Consistent with this view, Wahal and Wang find strong competition between incumbents and new entrant mutual funds from the late 1990s through 2005, as reflected in price competition, reduced returns to incumbents, and reductions in demand for incumbent firms. This is consistent with the declines in largest firms’ market shares seen earlier (see Wahal and Wang, “Competition Among Mutual Funds”).

5. **Mutual Fund Industry Structure and Indicators of Price Competition**

1. As noted earlier, the U.S. Government Accounting Office reached the same conclusion in 2000 with respect to equity and bond funds, but not money market funds.


3. See Chapter 1, Table 1.1.


5. Ibid. The *Merger Guidelines* provides screens for further government investigation of a proposed merger. The Herfindahl-Hirschman Index (HHI) screens are based on judgment (not derived from economics) and are designed to screen out horizontal mergers with very low anticompetitive potential. An HHI of 1,000 is equivalent to 10 equal size competitors, while the mutual fund industry has hundreds of rivals, so the likelihood of anticompetitive harm based on HHI in mutual funds is even more remote.


7. Bad news for investors, such as poor fund performance or an SEC investigation, can also lead to rapid changes in asset shares through redemptions. Funds exposed during the market timing scandal in 2003 for violating trading rules, such as Janus and Putnam, lost substantial share relative to 2000.

8. Direct purchases from funds have declined in recent years, from 23 percent of purchases in 1990 to 11 percent in 2006, relative to fund sales through third parties and to institutional investors. ICI, *2007 Fact Book*, p. 69. Purchases of fund shares through employer-based retirement plans have increased substantially.

10. Ibid., p. 26. The remaining balance was invested in variable annuities.
15. ICI, 2008 Fact Book, p. 66. The SEC authorized 12b-1 fees in 1980, a further class of expenses to be deducted from a fund’s assets.
17. ICI, 2008 Fact Book, p. 146.
18. Ibid., p. 38.
20. Ibid., p. 40.
25. Examining fee waivers in the early 1990s, Christoffersen found that 37 percent of equity funds engaged in fee waivers and 55 percent of money market fund managers waived approximately 67 percent of their listed fees to investors. Christoffersen, “Why Do Money Fund Managers Voluntarily Waive Their Fees?” pp. 1117–1140.
27. Ibid., p. 61.
28. ICI, 2008 Fact Book, p. 64.


1. One study asserts that retail mutual fund investment advisers earn long-run monopoly profits due to charging excessive fees, and the study attempts to test for monopoly profits. The study uses stock market returns for five investment
advisory firms from the 1980s through 2006 as evidence of monopoly profits and, by inference, excessive fees. Freeman, Brown, and Pomerantz, “Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test,” pp. 83–153. The study asserts that firms earning economic profits in noncompetitive markets, profits above the risk-adjusted competitive level owing to the absence of price competition, will earn excess stock price returns annually until their monopoly power is eliminated. The study does not consider how nonprice competition will affect economic profits and stock market returns. The use of long-term stock price returns as a proxy for monopoly profits is conceptually incorrect. A firm’s stock price reflects the discounted value of expected future earnings. If the existence of monopoly power and profits is known, which according to fee critics has been true for investment advisory firms since the 1960s, expected monopoly profits will be capitalized into the value of the firm’s stock. Subsequent stock buyers will earn only a competitive return until there are changes in expectations of future earnings. For the authors’ reasoning applied to investment advisers to be valid, investors in publicly traded advisory firms must have been chronically wrong about the firms’ monopoly power and expected earnings each year for at least 20 to 25 years, which is implausible. Various investment advisory firms may have earned above average stock market returns (adjusted for risk) in the last two decades, as did numerous firms in other industries, but it was not because of monopoly power in negotiating prices. Firms in competitive industries earning above average stock market returns do so because of competitive superiority, not because of an annual awakening to monopoly power and the capitalization of expected monopoly profits year after year, long after monopoly power is known by the investment community.

2. In a commingled pool, a small group of high wealth investors pool their assets to be managed as a single portfolio by an investment adviser. The investors typically contribute a substantial amount individually, such as $5 to $10 million, so total initial assets can be relatively large, depending on the number of investors.

3. The Wharton School report examined the fees charged by 54 investment advisers to mutual and nonmutual fund clients. It found that fees were at a minimum 50 percent higher to mutual fund clients in 39 cases, and much higher in other cases. Wharton School, A Study of Mutual Funds, p. 489. The SEC studied six banks, finding that fees on pension and profit-sharing plans were approximately 0.06 percent versus the 0.5 percent then prevailing at mutual funds, although the study acknowledged that fees were lower at banks in part because of their investing more heavily in fixed-income securities. Moreover, the products were not directly comparable because mutual funds faced higher risks and costs of starting and operating a fund. U.S. Securities and Exchange Commission (SEC), Report on the Public Policy Implications of Investment Company Growth, pp. 114–121. Based on a survey of the 100 largest pension plans in 1998, with approximately one-third useful responses, Freeman
and Brown concluded that average retail fund fees were double the size of average fees paid by pension plans to external portfolio managers. Freeman and Brown, “Mutual Fund Advisory Fees: The Cost of Conflicts of Interest,” pp. 627–640.


5. A survey of 401(k) defined contribution plans by Deloitte & Touche indicates that poorly performing advisers are replaced frequently. The study reports that 70 percent of such plan sponsors replace underperforming funds and 64 percent reported taking such action within the last two years. Deloitte & Touche, 401(k) Benchmarking Survey: 2008 Edition, p. 22.


7. This is not to say that retail mutual fund investors are not primarily focused on returns to their investment. Rather, it is to distinguish the many aspects of the product bundle purchased by retail investors from the institutional investor’s narrower product bundle.

8. The Gartenberg appellate court rejected using institutional investor fees as a competitive benchmark because of different services provided to retail investors. According to the court, “The nature and extent of the services required by each type of fund differ sharply.” As the court recognized, pension funds do not face the myriad of daily purchases and redemptions throughout the nation which must be handled by the Fund [Merrill Lynch’s money market fund], in which a purchaser may invest for only a few days.” Gartenberg, 694 F. 2d at 930, footnote 2.


13. Subadvisory services, where the fund accounts for all nonportfolio services, has grown as a share of total mutual fund portfolio management since the

15. Ibid., p. 49, footnote 60.
17. Adding to the measurement problem, what is included in 12b-1 fees can vary widely from fund to fund. According to the SEC, such fees are commonly used to pay distribution expenses, printing costs, and advertising. However, they are also used in some cases to pay other operating costs, including advisory services and administrative costs. SEC, Report on Mutual Funds Fees and Expenses, footnote 61.
18. Freeman and Brown, “Mutual Fund Advisory Fees: The Cost of Conflicts of Interest,” p. 631. Not only are mutual fund investors allegedly overcharged compared to public pension plans on portfolio management fees, but the authors claim that retail fund advisers have lower costs because they do not have to compete for investors. They assert that competing for institutional clients “necessitates a significant cost that [retail mutual] fund advisers need not pay: The cost of finding business in a competitive marketplace. Fund managers escape paying that cost due to their unseverable tie with the fund.” Freeman, Brown, and Pomerantz, “Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test,” p. 110.
19. In a letter to the Secretary of the SEC, John Freeman defends their measures of advisory fees. Freeman states that while the data problem exists, it is minor and they adjusted for the problem by eliminating funds that clearly commingled administrative and advisory costs, and included administrative costs in reported 12b-1 fees. Their study, however, only says that they eliminated funds that did not report administrative costs; not that they had a valid method for identifying funds with errors in measuring management or advisory costs. John P. Freeman, Letter to Secretary, U.S. Securities and Exchange Commission (March 13, 2007), p. 5. Freeman, Brown, and Pomerantz state that they refined Freeman and Brown’s method of extracting pure portfolio management costs and conclude that any measurement error in their estimates amounted to no more than three basis points. Freeman, Brown, and Pomerantz, “Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test,” p. 109, footnotes 90 and 91.
21. Vanguard Stockholders’ Reports, released annually.
22. Prior to Collins’s 2003 study, Freeman and Brown endorsed the use of sub-advisory fees for actively managed equity funds to measure pure portfolio fees.
Using subadvisory fees for ten actively managed Vanguard domestic equity funds in 1999, they found a weighted average base fee (before adjustments for fund performance in 1999) of approximately 0.15 percent, or about half of the 0.28 percent fee they claimed was the competitive price for portfolio management based on their survey of public pension plans. Freeman and Brown, “Mutual Fund Advisory Fees: The Cost of Conflicts of Interest,” p. 638. But if the competitive price is 0.28 percent, how could Vanguard pay subadvisory fees at half the competitive level? In Freeman’s rebuttal letter to the SEC, he argued that Vanguard receives prices well under the average competitive price because of economies of scale in subadvising its actively managed funds. Freeman, letter to the SEC (2007), pp. 7–8. However, Freeman and Brown’s data for Vanguard refute that explanation. Their data for Vanguard’s subadvisory fees show no consistency between fund asset size and fees (Freeman and Brown’s measure of economies of scale). Vanguard’s highest fee funds do not have the lowest total assets, nor do the largest asset Vanguard funds have the lowest fees. Freeman and Brown, “Mutual Fund Advisory Fees: The Cost of Conflicts of Interest,” p. 638. Moreover, the base fees Vanguard paid for subadvisory services ranged from 0.09 percent to 0.40 percent (0.04 percent to 0.40 percent after adjustment for fund performance payments). Freeman and Brown claim that portfolio management service is a commodity, so fees for comparable equity funds should be similar, yet their own data refute that claim. Adding to the doubtfulness of Freeman and Brown’s data is that in comparing fees for S&P 500 index funds between retail, institutional, and Vanguard’s S&P 500 index fund, they claim that Vanguard ran its $91 billion fund for only $100,000 in advisory costs, an advisory fee of about .0001 percent. This amount is factually suspect. In contrast, Vanguard’s administrative expenses for the fund, as reported by Freeman and Brown, were approximately $164 million (Ibid., p. 640).


24. Freeman, Brown, and Pomerantz, “Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test,” p. 100. The authors claim that subadvisory contracts manage “only a minor fraction of the fund business,” and that Collins understated subadvisory fees by failing to include additional charges that funds add to subadvisory fees when compiling investors’ annual fees (Ibid., p. 117). The greater than one-third of mutual funds managed by subadvisors in 2004 cannot easily be classified as a “minor” fraction. Chen, Hong, and Kubik, “Outsourcing Mutual Fund Management: Firm Boundaries, Incentives and Performance,” pp. 39–41. Their criticism of Collins is misguided. The point of Collins’s study was to obtain a more accurate measure of pure portfolio management fees at the retail fund level than Freeman and Brown’s attempt to extract such fees when they are imbedded with other costs in a fund’s total management costs. Expense ratios and thus investor fees contain markups for profits as well.

26. In the case of S&P 500 index funds, fees range from approximately 0.10 percent to over 2.0 percent of assets, even though each fund tracks as closely as possible returns to the S&P 500 index. ICI, *2008 Fact Book*, p. 64; and Hortacsu and Syverson, “Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry,” pp. 404–406.

27. The Wharton School report’s conclusion that little price dispersion existed across mutual funds in the 1950s and early 1960s is arguably overstated. The study reports that in a survey of 163 advisers in 1960, 49 percent had a 0.5 percent fee; 28.3 percent had fees below 0.5 percent; and 22.7 percent had fees above 0.5 percent. In addition, 9 percent of advisers had fees below 0.14 percent and 9 percent had fees above 1.0 percent, so the full range of fees did not cluster closely around 0.5 percent. Wharton School, *A Study of Mutual Funds*, p. 482. The report did find, however, that for the largest 29 funds in 1958, 23 had a list price of 0.5 percent of assets since 1952 or earlier. With shareholder approval required to raise list price it is not surprising to find list prices upwardly sticky.

28. The perfectly competitive model in market equilibrium eliminates price competition. In a perfectly competitive market equilibrium, pricing above the competitive price results in the loss of a firm’s entire sales, driving it out of business, and pricing below the competitive equilibrium price results in unsustainable losses, so firms cannot deviate from the market-determined price without going bankrupt. In addition, under the given technology, there is no incentive for new rivals to enter the industry. Under these conditions there is no price competition.


32. Surveys by the ICI found that among households owning mutual funds outside defined contribution pension plans, 80 percent purchased funds through professional financial advisers, which include full service brokers, independent financial advisers, insurance agents, bank or savings institutions investment specialists, and accountants. The ICI reported that 43 percent owned funds solely through advisers, and only 12 percent owned funds solely by direct purchase from funds, fund supermarkets, or discount brokers. ICI, 2008 Fact Book, p. 75.

33. Barber, Odean, and Zheng, in “Out of Sight, Out of Mind: The Effects of Expenses on Mutual Fund Flows,” found that more experienced fund investors tend to purchase lower load fee funds.

34. ICI, 2008 Fact Book, p. 64. The relationship between fees and assets invested raises the statistical question of whether large asset size leads to low fees or low fees lead to larger asset investment. Our statistical demand study results, reported in Chapter 4, account for the possibility of causation going from fund size to price rather than price to fund size. The results are consistent with the conventional view that lower price leads to greater demand and fund size. Other studies have controlled for this possibility to prevent bias in the results and report findings consistent with lower price leading to greater demand. Khorana and Servaes, “Conflicts of Interest and Competition in the Mutual Fund Industry.”

35. Wallison and Litan find that price dispersion between the lowest and highest fees in U.S. mutual funds is approximately 300 percent versus 100 percent in England. However, average fees in the United States are significantly lower than those in England, a factor of no small consequence to investors. See Khorana, Servaes, and Tufano, “Mutual Fund Fees Around the World” and Wallison and Litan, Competitive Equity: A Better Way to Organize Mutual Funds. Wallison and Litan argue that the cost of doing business in England accounts for England’s higher average fees. The cost of doing business cannot explain the price differential between the United States and numerous other countries. In Canada, for example, mutual fund fees are two to three times higher than in the United States and the cost of doing business is roughly equal. In general, average mutual fund fees in the United States are among the lowest in the world compared to fees in Western European and developed Asian countries. Even if price dispersion is greater in the United States than in other countries, with the United States having close to the lowest average fees in the world among developed countries, there is little basis to contend that the relatively low U.S. fees are not a product of price competition among investment advisers.


Notes

Industry 60 Years Later: For Better or Worse?” pp. 15–24. The debate over economies of scale and the level of mutual fund fees in academic research, the courts, and Congress generally does not refer to economies of scope. With economies of scope, it costs less to produce two or more products jointly (such as mutual funds within a fund complex) than by producing them separately, on a stand-alone basis. The debate over fee levels and economies of scale should also consider economies of scope.

38. In contrast to this received opinion, in a study 34 years after the 1966 SEC Report, the SEC found no evidence of economies of scale. SEC, Report on the Public Policy Implications of Investment Company Growth, p. 11; and SEC, Report on Mutual Funds Fees and Expenses, pp. 29–31.


40. Ibid., p. 480.


42. 15 U.S.C. §80a-36(b).

43. As explained in Chapter 3, although prices are determined by both supply (cost) and demand, plaintiffs consider cost only in claiming that fees are excessive, relying on the Gartenberg decision. However, economies of scale and unchanged nominal fees by themselves do not address whether fees are excessive. Price reductions can be passed on to investors in nonfee form, such as improved product and service quality, so that price per unit of quality declines but nominal price remains unchanged.

44. A rare exception is the case of a “natural monopoly” industry, in which average cost continues to decline with increasing output until only one firm can operate profitably.

45. As examples, technological advances in electronics have led to declining costs and prices over time in personal computers and numerous other electronic products, along with improvements in product quality. However, in many labor-intensive service sectors, such as health care and education, costs have consistently risen in recent decades.

46. Gartenberg, 694 F. 2d at 928.


49. Wharton School, A Study of Mutual Funds, p. 503. The 1966 SEC study concurred with the Wharton School report’s conclusion on economies of scale,
citing as an example growth in the Dreyfus fund from 1961 to 1965, where operating expenses rose less than proportionately to assets and advisory fees increased significantly. SEC, *Report on the Public Policy Implications of Investment Company Growth*, pp. 94–95.


59. Ibid.

60. Ibid, p. 22.


### 7. Mutual Funds’ Organizational Form and Conflicts of Interest

1. Again, at the most basic level there is a counterargument. The counterargument holds that just as shareholders in any publicly held firm who believe there is a conflict of interest between shareholders and management can sell their shares, so can mutual fund shareholders sell their shares if they believe that the investment adviser is not acting in the interests of the fund’s...
shareholders, thus moving their assets to comparable, lower fee or better performing funds.

2. This argument makes little sense when directors own a nontrivial amount of fund shares, since their interests are closely aligned with fund shareholders. Studies show that approximately two-thirds of directors own shares in the funds they monitor and director ownership is significantly positively related to fund performance. Chen, Goldstein, and Jiang, “Directors’ Ownership in the U.S. Mutual Fund Industry”; and Cremers, Driessen, and Weinbaum, “Does Skin in the Game Matter? Director Incentives and Governance in the Mutual Fund Industry.” In a test of whether advisers and directors have successfully acted jointly against the interests of fund shareholders, Kuhnen concluded, “Thus while connections [between advisers and directors] are strong determinants of how the manager and director positions are filled in this industry, they do not have an economically significant impact on the investors’ bottom line.” Kuhnen, “Social Networks, Corporate Governance and Contracting in the Mutual Fund Industry.”

3. Swensen, Unconventional Success: A Fundamental Approach to Personal Investment, pp. 341, 343. Bogle, in “The Mutual Fund Industry 60 Years Later: for Better or Worse?” argues in a similar manner that until 1958 fund money managers acted as stewards of clients’ assets, solely in the interest of fund shareholders and not as profit-maximizing firms. In 1958, the Ninth Circuit and U.S. Supreme Court granted an investment adviser, Insurance Securities, Inc., the right to go public and sell shares, which according to Bogle transformed advisers into profit-maximizing firms, compelling them to act contrary to the interests of fund shareholders. No explanation is given as to why competing privately held investment advisory firms prior to 1958 lacked the motivation and competitive pressure to maximize profits.

4. In reality, the distinction between internal and external portfolio management can be ambiguous. In some cases wherein funds are managed by external advisers, officers of the investment advisory firm are also officers of the fund’s board of directors. Moreover, studies find that mutual fund performance increases with increasing investment adviser fund ownership. Khorana, Servaes, and Wedge, “Portfolio Manager Ownership and Fund Performance,” pp. 179–204; and Evans, “Portfolio Manager Ownership and Mutual Fund Performance.” In such cases, fund shareholder and investment adviser interests are in close alignment, with both seeking to maximize returns to shareholders.


11. Both the Wharton and SEC studies in the 1960s reported that expense ratios and management fees were substantially lower in internally as compared to externally managed fund complexes. The fee data reported do not include waivers, so the data may be subject to error. Even so, based on expense ratios, there are some notable exceptions to the claimed superiority of cost levels in internally managed complexes. As of June 30, 1966, the internally managed funds of MIGSF and Century Shares Trust had an expense ratio of 0.38 percent, the same as such externally managed funds as Investors Mutual, Wellington Fund, and Bullock Fund, and above the externally managed Affiliated Fund at 0.34 percent. The SEC reported that internally managed MIGSF had a fee of 0.26 percent and Century Shares 0.28 percent, while externally managed Wellington had a 0.26 percent advisory fee, Affiliated Fund 0.24 percent, Putnam Income Fund 0.27 percent, and Bullock Fund 0.23 percent. Hence, while on average internal portfolio management at the time may have charged lower fees than external portfolio management, there were a number of exceptions, where externally managed funds had comparable or even lower fees. SEC, *Report on the Public Policy Implications of Investment Company Growth*, pp. 102–107. Similarly, the Wharton School report found that operating expenses for externally managed funds, measured in cents per $1,000 managed as of 1960–1961, were lower than management expenses in internally managed funds when comparing funds in the $300 to $600 million size class as well as for funds in the $10 to $50 million size class. The data show that internal portfolio management in the 1960s, by itself, did not assure investors the lowest annual fees. Wharton School, *A Study of Mutual Funds*, p. 525.

12. Freeman and Brown, “Mutual Fund Advisory Fees: The Cost of Conflicts of Interest,” pp. 618–619; and Freeman, Brown, and Pomerantz, “Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test,” p. 95. Despite their view of Vanguard as the ideal governance form, Freeman and Brown do not call for a universal change in mutual fund governance structure to vertically integrated, not-for-profit status. Rather, the authors ask the SEC to require standardized accounting reporting of shareholder fees to facilitate fee comparisons between retail and institutional funds and a most-favored-nation requirement on investor fees, so that retail shareholders pay the same lower fees as institutional investors.


14. Ibid.

15. Mutual funds’ use of subadvisers is fairly common. The incidence of outsourcing has risen in recent years, with approximately 48 percent of fund


26. A Bloomberg study found that Vanguard had 26 outside managers, up from 19 five years earlier. Teitelbaum, “Vanguard Edge,” p. 50.

27. Vanguard has a reputation for reducing outside managers’ fees to a minimum. Vanguard has a sliding scale for fees based on the amount of assets under management and a fund performance adjustment fee, where good performance generates a bonus and poor performance generates a reduction in fees. Managers that perform well, such as Primecap, manager of Vanguard’s Primecap Fund, did in 2005, can receive an increase in the contracted fee plus a year-end bonus. Primecap’s fee was raised in 2005 from 0.18 to 0.22 percent on the $27.4 billion Vanguard Primecap Fund, an $11 million increase in fee revenues. Teitelbaum, “Vanguard Edge,” p. 50.

28. Vanguard receives a share of its funds’ net asset as a “Contribution to Capital.” Vanguard 500 Index Fund Annual Report (December 31, 2004), note B, p. 24. Vanguard states in fund prospectuses that the fund may contribute up to 0.40 percent of net asset value to Vanguard’s capital. This mechanism is one way that Vanguard can earn profits on the services it provides to fund shareholders. However, as a privately held corporation, Vanguard’s profits and profit disbursement to its owners are not reported.

30. Prospectus, *TIAA-CREF Institutional Mutual Funds Retail Class* (February 1, 2005), p. 20; and Supplement to the Prospectuses Dated February 1, 2005 (September 16, 2005).


35. The results use equally weighted returns. Similar conclusions resulted from using weighted-average returns.

36. We also examined returns to Vanguard’s Value Index fund over the period January 1993 to March 2009 and Vanguard’s Value exchange-traded fund (ETF) for the period February 2004 to March 2009. ETFs are marketed as having lower investor fees than traditional mutual funds. Both Vanguard’s Value Index and Value ETF underperformed the market (negative and statistically significant alphas), similar to our results for Vanguard and domestic equity funds as a whole and passively managed funds. Again, Vanguard’s low fees did not translate into greater returns than Vanguard’s mostly for-profit, nonvertically integrated rivals.

8. What Have We Learned?

1. To further improve investors’ access to relevant mutual fund information and their ability to compare fund costs across mutual funds, the SEC announced an improved disclosure policy that funds must implement no later than January 1, 2010. Mutual funds must provide a concise summary of relevant information at the beginning of their required prospectus, which discloses in plain English the fund’s costs, risks, strategies, and objectives. U.S. Securities and Exchange Commission, “SEC Improves Disclosure for Mutual Fund Investors,” Press Release, 2008-275, November 19, 2008.


Appendix to Chapter Four


3. To reduce notation, $\mu$ is used to represent a demand shift in the model rather than $\mu_{i,t}$. Excessive subscripting is avoided where possible.
4. To avoid confusion in notation, we note that $\delta$ is conventionally used to represent both the decay rate of goodwill and mean utility in discrete choice models.


10. Moul, “Consequences of Omitting Advertising in Demand Estimation.”

**Appendix to Chapter Seven**