CENTER FOR
RETIREMENT
RESEARCH
AT BOSTON COLLEGE

July 2010, Number 10-11

REDUCING COSTS OF 401(k) PLANS WITH ETFs AND COMMINGLED TRUSTS

By Richard W. Kopcke, Francis M. Vitagliano, and Zhenya S. Karamcheva*

Introduction

Increasingly, employers who provide their employees with a retirement plan are relying on 401(k) and similar defined contribution plans instead of defined benefit plans. As a result, participants are paying more of the cost of managing their pension plans, which can take a substantial toll on their retirement savings. Over a 30-year career, for example, an annual fee of 0.7 percent of assets reduces the purchasing power of a participant's balance at the time of retirement by more than one-eighth.

This *brief* considers the potential savings that sponsors can achieve in their 401(k) plans by reducing the "trading costs" embedded in the investment options that are often included in their plans. Most of the money invested in equity within 401(k) plans is held in actively-managed mutual funds. Although the investment objectives of these funds can offer more promising returns than the passive investment strategies of broad index funds, actively-managed funds can be costly. Without giving up the investment objectives of actively-managed funds, 401(k) plans can achieve substantial savings by shifting to exchange-traded funds (ETFs) and commingled trusts.

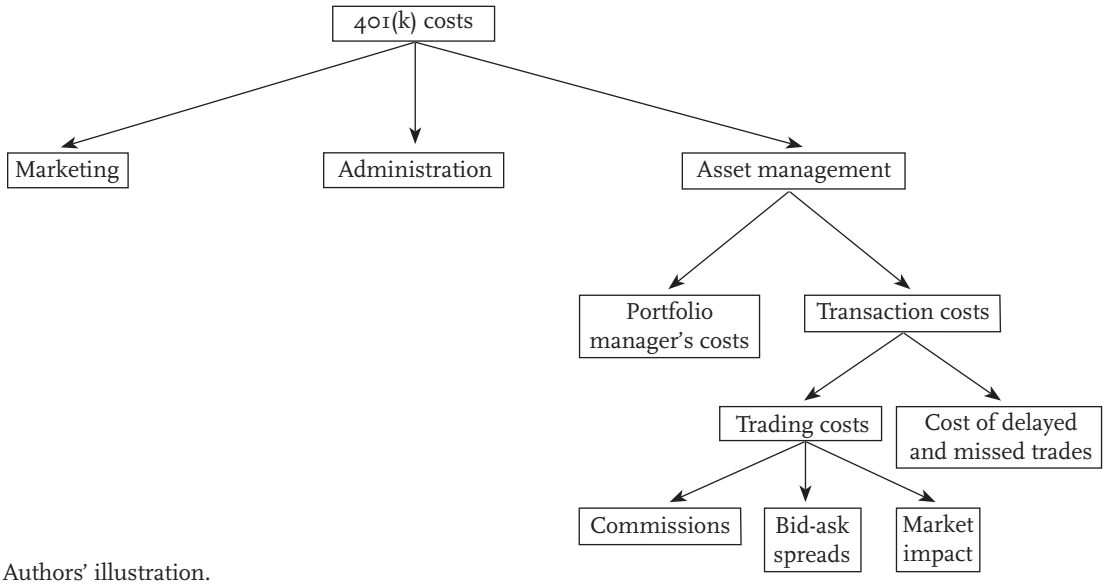
The first section describes the nature of trading costs in the overall fees paid by 401(k) participants. The second section estimates the burden of trading costs within popular equity mutual funds. The third section describes how adopting the investment options often used by other institutional investors – specifically, ETFs and commingled trusts – could increase total returns within 401(k) plans by reducing costs. The final section concludes that participants in average 401(k) plans who hold balances in actively-managed domestic equity mutual funds could reduce their fees and costs by 0.70 percent of assets, or more. About one-third of this savings can be achieved by changing just the structure of plans' investment options to reduce the fees they pay their financial service providers. About two-thirds of this savings would result from reductions in trading costs made possible by restructuring.

The Nature of Trading Costs

Under 401(k)-type plans, a variety of financial services are provided to allow participants to save for retirement in diversified pools that are invested in stocks, bonds, and other securities (see Figure 1 on the next page). These services, which fall into the general categories of marketing, administration, and asset management, entail expenses that cost the average plan about 1.5 percent of assets annually. In an average 401(k) plan, participants and, to a lesser extent, their employers pay about half of the cost of these services through explicitly stated fees. The remaining costs are charged against the returns credited to participants' accounts in the plan.

* Richard W. Kopcke and Francis M. Vitagliano are consultants for the Center for Retirement Research at Boston College (CRR). Zhenya Karamcheva is a research associate for the CRR.

Figure 1. 401(k) Plan Costs



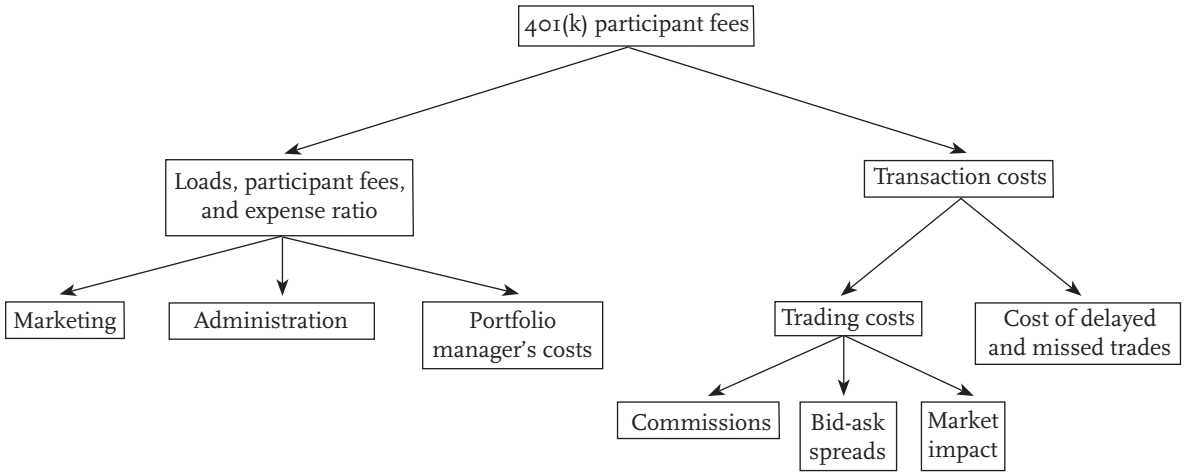
Source: Authors' illustration.

The explicit fees of an average 401(k) plan most commonly take the form of assessments per dollar of assets – expense ratios – and fixed assessments per participant (see Figure 2). Such fees, ranging from 0.7 to 1.0 percent of assets for the average plan, cover the expenses of marketing the investment options within 401(k) plans, administering the plans, and paying for the services of portfolio managers.[1] We discuss these explicit fees and the costs they cover in a previous *brief*, "The Structure of 401(k) Fees."[2]

The explicit fees in 401(k) plans do not include the transaction costs incurred by the mutual funds within the plans (see Figure 2). Transaction costs include mutual funds' trading cost – the commissions, spreads, and price concessions they pay to trade securities.[3]

Most actively-managed equity mutual funds trade stocks relatively frequently, and the trades of mutual funds are often sufficiently large to move the prices of stocks. Dealers in stock markets facilitate trading

Figure 2. 401(k) Plan Participant Fees



Source: Authors' illustration.

by standing ready to buy or sell stocks at their quoted prices for their own accounts.[4] This service requires dealers to finance their positions and exposes them to the risk of losses – for example, when they buy stock for which there is no immediate demand from other traders. To cover the cost of providing this liquidity and to cover their risk, dealers quote prices to sell stocks – their ask prices – at a suitable margin above their estimate of prevailing market prices, and they quote prices to buy stocks – their bid prices – below market prices. Because orders submitted by equity mutual funds tend to be much larger than average, they entail much larger costs and risks. As a result, mutual funds often pay additional price concessions – price impact costs – as their large trades move dealers' estimates of market-clearing prices.

Consequently, an equity mutual fund that sells 100,000 shares in company XYZ in order to purchase a similarly large stake in company ABC pays a significant toll to reallocate its funds. It pays commissions for both trades. It also likely sells XYZ at a price below prevailing market as dealers temporarily adjust their estimates of the price needed to elicit sufficient buyers. For similar reasons, the mutual fund buys ABC at a price above the prevailing market price. If, for example, these costs generally amounted to 2 percent of the assets transferred, and if the fund traded 50 percent of its assets during the year, these trading costs would reduce the net return on the fund's assets for the year by 1 percentage point. Unless these transfers boost the fund's average rate of return by at least 1 percentage point, this trading activity would be costly for its investors.[5]

The Magnitude of Trading Costs

We estimate trading costs for the 100 largest domestic equity mutual funds held in defined contribution plans as of December 2007.[6] In addition to the commissions reported by the funds, we estimate the expenses that funds incur by paying bid-ask spreads instead of market prices when they buy and sell. We also estimate the price impact cost, the expense that funds incur when their large orders move prices.

Table 1 separates our sample into five groups of 20 funds, ranked according to their trading costs per dollar of net asset value for the years 2004 through 2008. The first row of the table shows, for each quintile of trading costs, the median asset turnover ratio, a measure of the trading activity by mutual funds.[7] Not surprisingly, the quintiles with higher trading costs have higher trading activity. The results suggest that trading costs rise much more rapidly than trading activity once turnover rates approach 50 percent per year.

The funds that trade most actively must make relatively large price concessions to obtain the liquidity they require. For funds in the lowest quintile, median trading cost amounted to 0.11 percent of assets per year. For funds in the highest quintile, median trading cost amounted to 1.99 percent of assets annually. Median trading costs for the middle quintile were 0.66 percent of assets annually. In all cases, the largest component of trading costs was the price impact cost.

Table 1. Distribution of Trading Cost by Quintiles

Quintile	1	2	3	4	5
Asset turnover ratio	7%	36%	45%	50%	79%
	Total net assets				
Total Trading Cost (TC)	0.11%	0.39%	0.66%	1.15%	1.99%
Brokerage commissions	0.01	0.07	0.12	0.10	0.17
Bid-ask cost	0.01	0.03	0.03	0.04	0.07
Price impact cost	0.06	0.29	0.50	0.97	1.69
Annual Sales Load Fee (SLF)	0.10	0.12	0.08	0.06	0.09
Expense Ratio (ER)	0.35	0.69	0.82	0.96	0.91
TC+SLF+ER	0.39	1.26	1.59	2.05	3.25

Note: The entries for the annual sales load fee show the mean cost for the funds in each quintile. The entries for all other costs in each panel show the median value for each cost for the funds in the quintile. For each fund, each cost is the median value for that cost for 2004 through 2008.
Sources: Authors' estimates using data from New York Stock Exchange Trades and Quotes (TAQ); Center for Research in Security Prices (CRSP); Lipper, Inc.; and Thomson Reuters.

Trading costs can be substantial compared with the explicit fees charged by the mutual funds in our sample.[8] As shown in Table 1, median trading costs exceed the explicit expense ratio for the funds in the two quintiles with the highest trading costs. For the 20 funds in the middle quintile, trading costs are more than three-quarters of the size of the expense ratio. The mutual funds with the lowest expense ratios and trading costs tend to be passively-managed funds, like index funds, which have significantly lower total costs than the other funds in the sample.

Mutual funds try to cover their costs by earning greater returns through their active investment strategies. Of the 100 domestic equity mutual funds in our sample, 86 have existed since 1998. Table 2 compares the performance of these 86 funds with common market standards. The "surplus return" reported in the table measures the extent to which the funds provided a return above that on market indexes by margins sufficient to cover both their costs and the risks of their active investment strategies from 1998 to 2008.[9] A positive value means that the funds' returns covered their additional costs and risks. A negative value shows that their returns fell short.

Table 2 organizes the 86 funds into quintiles, ranking them by their surplus returns. Across these quintiles, trading costs and expense ratios follow U-shaped patterns. Both the 17 funds with the lowest surplus returns and the 17 funds with the highest surplus returns showed the highest median trading costs and expense ratios. In both cases, the funds' expenses were similar, 1.86 and 1.92 percent of assets, respectively. Similar results apply to the funds in the second and fourth quintiles. These data show that the funds with the greatest expenses are essentially evenly divided between those that covered their costs and portfolio risks, thereby outperforming the market, and those that did not. Therefore, on balance, actively-managed funds can entail a substantial amount of additional risk for investors, resulting from their failure to cover their transaction costs.[10]

Boost Returns by Shifting to ETFs and Commingled Trusts

Suppose sponsors and trustees of 401(k) plans could consistently pick in advance the investment strategies and actively-managed mutual funds whose investment objectives will produce attractive surplus returns for the future. Even if this were the case, participants in 401(k) plans could earn significantly higher surplus returns if their plans shifted their investment options from equity mutual funds to exchange-traded funds (ETFs) and commingled trusts.[11]

ETFs, like mutual funds, are publicly-traded investment pools. The mix of assets in an ETF is designed to track the performance of an index of stock prices, such as the S&P 500, the consumer staples sector, large cap stocks, growth stocks, or even indexes of stock prices weighted by companies' sales, earnings, dividends, and other fundamental factors. ETFs need relatively little advertising to present themselves because their only claim to fame is their tie to a specific index of stock prices.

Table 2. Distribution of Performance, Fees, and Costs

Quintile	1	2	3	4	5
Surplus return	-2.10%	-0.30%	0.36%	1.37%	4.44%
	Total net assets				
Total Trading Cost (TC)	0.82%	0.53%	0.19%	0.53%	0.81%
Annual Sales Load Fee (SLF)	0.11	0.06	0.07	0.14	0.09
Expense Ratio (ER)	0.84	0.61	0.54	0.76	0.89
TC+SLF+ER	1.86	1.19	1.04	1.44	1.92

Note: The table organizes the sample of funds into quintiles by their value of surplus return. The entries for the annual sales load fee show the mean cost for the funds in each quintile. The entries for all other costs show the median for each cost for the funds in each quintile. For each fund, each cost is the median value for that cost for years 2004 through 2008.
Sources: Authors' estimates using data from NYSE TAQ, CRSP, Thomson Reuters, and Fama and French.

Although ETFs are investment pools whose shares trade in public stock markets, they incur minimal trading costs (see Table 3). As mutual funds grow or contract, they must buy and sell shares of companies' stocks. But an ETF buys or sells relatively little stock on its own behalf. Instead, an ETF allows only authorized financial institutions to create or redeem its shares. When an institution receives new shares, it "pays" the ETF by transferring to the ETF shares of stock for the companies that the EFT holds in its portfolio. When an institution redeems an ETF's shares, it is paid with shares in companies' stock from the ETF's portfolio. So an ETF grows when a financial institution deposits shares of companies' stocks into the ETF's portfolio, and it contracts when a financial institution withdraws companies' stocks from the portfolio.[12] The financial institution, not the ETF, ultimately pays for the trading in companies' stocks.

Table 3. Costs by Type of Fund

Type of fund	Costs	
	Marketing-sales	Trading
Actively-managed equity mutual fund	Moderate-high	Moderate-high
ETF	Low	Extremely low
Commingled trust	Low	Low-moderate

Source: Authors' analysis.

Because ETFs conduct their transactions with financial institutions in shares of the stocks that appear in their index, instead of executing trades on their own behalf, ETFs are paid for supplying financial institutions a degree of liquidity.[13] ETFs not only avoid much of the drag of transaction costs, they also can boost returns by being paid for providing liquidity. Furthermore, participants in 401(k) plans holding ETFs not only economize on their own trading costs, but they also avoid paying a share of the trading costs of other, more active investors in ETFs because these investors pay their own trading costs.

Commingled trusts are investment pools that sell their shares privately to a limited number of investors, usually pension plans and other institutional investors. Accordingly, commingled trusts avoid the costs of public registration and compliance, public advertising, and trading triggered by significant flows of retail transactions each day. Commingled trusts that track the investment objectives of actively-managed mutual funds can replicate, with lower trading costs, much of the performance of these mutual funds. Commingled trusts also can reduce expense ratios for 401(k) plans. Because these trusts sell their specialized investment services to institutional investors in competitive wholesale markets, pension plans can buy their services at low cost compared with the implicit pricing of investment services by many actively-managed mutual funds. For this reason, commingled trusts commonly appear among the assets of defined benefit pension plans and other institutional investors.

Together, ETFs and commingled trusts allow 401(k) plans to cut their trading costs even more substantially without forgoing the potential benefits offered by actively-managed mutual funds. Part of the appeal of mutual funds is their ability to spare participants in 401(k) plans the responsibility and burden of actively managing their holdings. By offering commingled trusts that track public indexes or hold ETFs and other low-cost investment options, 401(k) plans can offer participants the potential benefit of this active management. The extensive range of low-cost ETFs available today allows commingled trusts, at low cost, to construct portfolios that reflect a wide range of investment strategies. By holding a selection of suitable ETFs, trusts can mimic closely the returns for any large mutual fund's investment objective without having to trade as aggressively as actively-managed mutual funds. Consequently, compared with the median trading cost of 0.66 percent of assets in our sample of equity mutual funds, ETFs can cut investors' annual expenses by as much as 0.5 percent of assets.[14]

In addition, commingled trusts can allow 401(k) plans to cut their administration and management costs.[15] The average expense ratio in our sample of large domestic equity mutual funds was about 0.8 percent of assets.[16] This fee covers the combined cost of administering and managing the plans that offer these mutual funds as investment options. Although this single fee is simple, it does not allow sponsors of 401(k) plans to pay for only the services that they need and use. It also does not allow sponsors to negotiate the best prices for these services. In place of this single fee, average-size 401(k) plans can hire record keepers to administer their accounts for less than 0.1 percent of assets.[17] And sponsors can offer investment options in commingled trusts for fees ranging from 0.25 to 0.40 percent of assets.[18] By enrolling many smaller 401(k) plans in a common system with common investment options in commingled trusts, record keepers can achieve costs for smaller plans that are very similar to the costs for larger plans. As a result, by moving beyond the single-fee arrangements commonly offered by mutual funds, 401(k) plans can cut their administration and management costs by 0.3 to 0.45 percent of assets.[19]

Within defined contribution pension plans, most of the money that is invested in equity mutual funds is held in actively-managed funds. Without giving up the investment objectives offered by these funds, participants in 401(k) plans could pay significantly lower costs on their assets by shifting to ETFs and commingled trusts. Together, the potential savings in explicit fees and trading costs can amount to 0.7 percent of assets or more for the average 401(k) plan. These savings boost the net return on balances in these accounts by the same amount.

Conclusion

The design and pricing of equity mutual funds within 401(k) plans are costly for the average employee. For those who invest in the domestic equity funds that are offered by the average plan, restructuring the plan to include commingled trusts and ETFs can reduce explicit expenses and transaction costs without giving up the investment objectives offered by actively-managed funds. We find that, using this approach, the savings offered by commingled trusts and ETFs can boost the net returns on participants' balances by 0.7 percent of assets or more. This shift to trusts and ETFs not only allows 401(k) plans to economize on their own trading costs, but it also allows participants in 401(k) plans to avoid paying a share of the trading costs of other, more active investors.

Endnotes

1 See Deloitte (2009a) and Investment Company Institute (2009).

2 Kopcke, Vitagliano, and Muldoon (2009).

3 Transaction costs also include the opportunity cost of delayed or missed trades due to the funds' trading strategies. The cost of delayed or missed trades, which also reduces participants' returns, likely exceeds the trading costs for popular equity mutual funds (Wagner, 2003; Gastineau, 2005; and Kissell, 2006). This *brief* estimates only the trading costs of equity mutual funds in 401(k) plans and excludes the cost of trading strategies, recognizing that trading costs alone understate the full extent of total transaction costs. Estimating the cost of trading strategies requires detailed records of the timing of portfolio managers' investment decisions and traders' transactions.

4 Dark pools and other crossing networks can reduce transaction costs by matching large blocks of buy and sell orders directly. Often these facilities can match only a small share of orders, because large orders tend to cluster on one side of the order book. This can be especially true for the mutual funds in our sample. In most quarters, for more than half of the stocks traded most by these funds, the change in positions by the funds either acquiring or selling the stock, whichever predominates, amounts to more than three times the change in positions by the funds moving in the opposite direction. For more than one-third of the commonly traded stocks, this ratio exceeds eight times.

5 This kind of trading activity can be costly for investors even if the fund were able to boost its return sufficiently to cover these costs. When trading activity increases the market risks in a fund's portfolio, investors require higher returns to cover the additional risks they are bearing. In this case, the returns would need to rise sufficiently to cover both the trading costs and risk premium required by investors. See the discussion of the results in Table 2.

6 See Pensions & Investments (2008); and Kopcke, Vitagliano, and Karamcheva (2009).

7 A fund's asset turnover ratio is its total sales of stocks or its total purchases of stocks during the year, whichever is less, divided by its average monthly assets during the year. A turnover ratio of 50 percent means that the fund trades at least half of its portfolio each year.

8 Edelen, Evans, and Kadlec (2007); and Kopcke, Vitagliano, and Karamcheva (2009).

9 The "surplus returns" are the alphas estimated in four-factor Fama-French-Carhart equations. For more information, see Kopcke, Vitagliano, and Karamcheva (2009).

10 Over intervals as short as these 11 years, we expect to find a range of surplus returns within any set of mutual funds representing diverse investment strategies as a result of luck (Fama and French, 2009). Over longer intervals, the evidence has suggested that the surplus returns for large mutual funds tend to converge to values below zero (Standard & Poor's, 2009; Cohen, Polk, and Silli, 2009; Malkiel, 2007; and Bogle, 2007, 2010). The funds with the greatest surplus returns tended to favor growth stocks more than value stocks over this 11-year interval. The successful investment strategies for the past 11 years will not necessarily produce positive surplus returns in the future as waves of valuations shift, as they have through history, from growth to value stocks, large cap to small cap stocks, or among other fundamental factors. Too often, the winning strategies of one decade fail to deliver surplus returns in subsequent decades.

11 See Costa (1980); Securities and Exchange Commission (2007); Deloitte (2009a, 2009b); and Florentine (2009).

12 Authorized institutions create new shares when the value of the ETF's shares is high relative to the value of its assets, and they redeem shares when the value of the ETF's shares is low relative to the value of its assets. Consequently, the shares of ETFs typically trade at prices very close to the prevailing net value of their assets, unlike the shares of closed-end mutual funds.

13 ETFs charge authorized participants for their transactions as they create or redeem shares (creation units) in the fund. The prospectus for the iShares S&P 500 ETF (IVV) specifies a fixed fee plus a "variable charge (up to 3 percent of the transaction for creation and 2 percent for redemptions) to compensate for brokerage and market impact expenses."

14 Furthermore, considering the additional savings in trading strategy costs, the savings in total transaction costs can be closer to 1 percent of assets (Wagner, 2003; Gastineau, 2005; and Kissell, 2006).

15 Adding ETFs to 401(k) plans requires some changes in the plans' record-keeping. Most 401(k) record-keeping systems are designed to trade mutual funds that offer end-of-day pricing and next-day availability. Although mutual funds receive the proceeds from the sale of stocks in three days, these funds can provide next-day availability to their investors by maintaining a cash balance. ETFs are priced throughout the day, and proceeds from the sales of ETFs are available in three days. To contend with these differences, 401(k) record-keeping systems can adopt a self-directed brokerage option that would handle the trading of ETFs the same as mutual funds. Some 401(k) plans and IRA accounts that are structured as brokerage accounts offer these patches.

16 This is in the range of 0.7 to 1 percent of assets that appear in other surveys. See Deloitte (2009a); and Investment Company Institute (2009).

17 See HR Investment Consultants (2007).

18 See Deloitte (2009b); and HR Investment Consultants (2007).

19 From 0.8 – (0.1+0.4) to 0.8 – (0.1+0.25).

References

Bogle, John C. 2010. *Common Sense on Mutual Funds.* Hoboken, NJ: John Wiley & Sons.

Bogle, John C. 2007. *The Little Book of Common Sense Investing.* Hoboken, NJ: John Wiley & Sons.

Center for Research in Security Prices (CRSP) Mutual Fund Database, 2004-2008. Obtained through Wharton Research Data Services. Available at: http://wrds-web.wharton.upenn.edu/wrds.

Cohen, Randy, Christopher Polk, and Bernhard Silli. 2009. "Best Ideas." Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1364827.

Costa, Michael L. 1980. *Master Trust: Simplifying Employee Benefits Trust Fund Administration.* New York, NY: Amacom.

Deloitte. 2009a. "Defined Contribution/401(k) Fee Study." Investment Company Institute (June).

Deloitte. 2009b. "Exchange-Traded Funds: Challenging the Dominance of Mutual Funds?" Deloitte Research Report (June 30).

Edelen, Roger M., Richard Evans, and Gregory B. Kadlec. 2007. "Scale Effects in Mutual Fund Performance: The Role of Trading Costs." Working Paper 951367. Social Sciences Research Network.

Fama, Eugene F. and Kenneth R. French. 2009. "Luck Versus Skill in the Cross Section of Mutual Fund Returns." Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1356021.

Fama, Eugene F. and Kenneth R. French. Data Library. Available at: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

Florentine, Lisa. "Investment Vehicle Matters!" Rogerscasey (May 2009).

Gastineau, Gary L. 2005. *Someone Will Make Money on Your Funds – Why Not You?* Hoboken, NJ: John Wiley & Sons.

Investment Company Institute. 2009. "The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2008." *Research Fundamentals* 18(6).

Kopcke, Richard W., Francis Vitagliano, and Dan Muldoon. 2009. "The Structure of 401(k) Fees." *Issue in Brief* 9-3. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Kopcke, Richard W., Francis M. Vitagliano, and Zhenya S. Karamcheva. 2009. "Fees and Trading Costs of Equity Mutual Funds in 401(k) Plans and Potential Savings from ETFs and Commingled Trusts." Working Paper 2009-27. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Haslem, John A. 2007. "Normative Transparency of Mutual Fund Disclosure and the Case of the Expense Ratio." *The Journal of Investing* (Winter): 167-174.

HR Investment Consultants. 2007. *401(k) Averages Book*. 8th Ed. Baltimore, MD: HR Investment Consultants, Inc.

Kissell, Robert. 2006. "The Expanded Implementation Shortfall: Understanding Transaction Cost Components." *The Journal of Trading* 1(3): 6-16.

Lipper, Inc. Custom Report: "Boston College Mutual Fund Expense Report." Obtained through personal communication.

Malkiel, Burton G. 2007. *A Random Walk Down Wall Street*. New York, NY: W. W. Norton & Company.

New York Stock Exchange Trades and Quotes (NYSE TAQ) Database, 2004-2008. Obtained though Wharton Research Data Services. Available at: http://wrds-web.wharton.upenn.edu/wrds.

Pensions & Investments. 2008. "Domestic Equity Mutual Funds Most Used by DC Plans." Available at: http://www.pionline.com/section/TopPerformingMutualFundsArchive.

Pensions & Investments. 2008. "Domestic Equity Mutual Funds Most Used by DC Plans." Available at: http://www.pionline.com/apps/pbcs.dll/section?djoPage=view_html&category=datajoe&djoPid=10951&djoYear=2008&djoPgTitle=DC+mutual+funds+2008-Dometic+equity+funds&djoPY=%40peoiwfOemuOA&djo ParentId=931.

Securities and Exchange Commission. 2007. "Exchange-Traded Funds (ETFs)." Available at: http://www.sec.gov/answers/etf.htm.

Standard & Poor's. 2009. "Standard & Poor's Indices Versus Active Funds Scorecard, Year End 2008." April 20.

Thomson Reuters Mutual Funds Holdings Database, 2004-2008. Obtained through Wharton Research Data Services. Available at: http://wrds-web.wharton.upenn.edu/wrds/.

Wagner, Wayne. 2003. Testimony before the House Committee on Financial Services Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, March 12.

CENTER FOR
RETIREMENT
RESEARCH
AT BOSTON COLLEGE

About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and forge a strong link between the academic community and decision makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

Affiliated Institutions

The Brookings Institution
Massachusetts Institute of Technology
Syracuse University
Urban Institute

Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: http://www.bc.edu/crr

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium. The opinions and conclusions expressed are solely those of the authors and do not represent the opinions or policy of SSA, any agency of the Federal Government, or the Center for Retirement Research at Boston College.