2012
Study of Indexing in DC plans

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Summary

Despite the popularity of index funds and their accompanying perception of being low cost, small plans are paying quite a premium for this investment type. This study supports the use of index investments in defined contribution plans, but finds that nearly 88% of such plans in the United States are overpaying by using Mutual Funds instead of Exchange Traded Funds (ETFs).

Given the substantial number of plans which fall into this category (88% of plans have less than $200 million in assets), the increasing popularity of index investing and new fiduciary regulations that require companies to ensure the reasonableness of investment expenses; the practical decision to replace index mutual funds with ETFs will likely serve as the “breakout” point for ETFs in retirement plans.

This study will show that for plans with less than $200 million in assets, ETFs should be used for index investing rather than mutual funds.

Introduction

New federal regulations on Fee Disclosure in retirement plans have brought discussions on investment expense to the forefront of consideration. With mandates requiring companies to take a good hard look at the costs incurred in their plans, many are taking greater notice of index investing; the benefits of which have been well popularized recently through stories written and syndicated by major names like The New York Times[1], Forbes Magazine[2] and the Huffington Post.[3]

A consensus opinion among retirement plan experts is beginning to form that, for the future, retirement plans are positively trending towards a greater embrace of index fund utilization and asset allocation.[4]

But not all index funds are created equal. Plans can invest in one of two types of index fund, a mutual fund or an Exchange Traded Fund (ETF). Both types of funds, following the S&P 500 index for example, would own shares in the 500 companies that make up the index. There is no management style, target or objective outside of tracking the index. So when it comes to index funds, the element of substantial competitive advantage is effectively removed; implying an expectation of uniformity in pricing structure.

This study examines whether or not that is the case in defined contribution plans. As ETFs have a low, uniform pricing structure, many boldly argue that there is no benefit in adding them to retirement plans, claiming that index mutual funds can be added to any plan for virtually the same expense ratio. Justifying the legitimacy of such claims necessitates a closer look at the presence of index funds in plans of various asset levels.

Sample Pool

Ninety-two (92) defined contributions plans from throughout the United States participated in supplying data. The largest concentration of plans was in the Northwest, followed by the Southwest, Midwest, Southeast and Northeast.

Plans provided their total asset level, number of participants, investment options (with ticker symbols), investment expense ratios, average participant balance and geographic region. Two-hundred-fifty-two (252) index funds were identified from these plans.

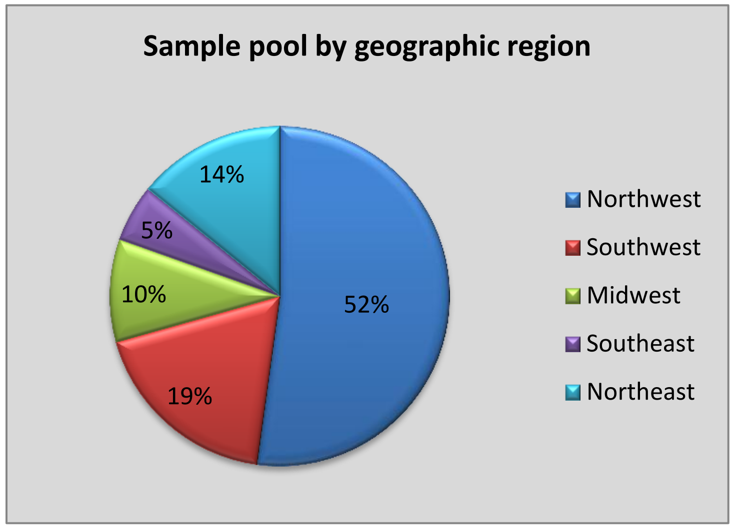

Figure 1. Sample pool by geographic region.

From this information, plans were placed into one of 4 market segments based on the classification criteria used by PLANSPONSOR Magazine in their 2011 Defined Contribution Plan Survey:[5]

- Micro Plan
- Small Plan
- Mid Plan
- Large Plan

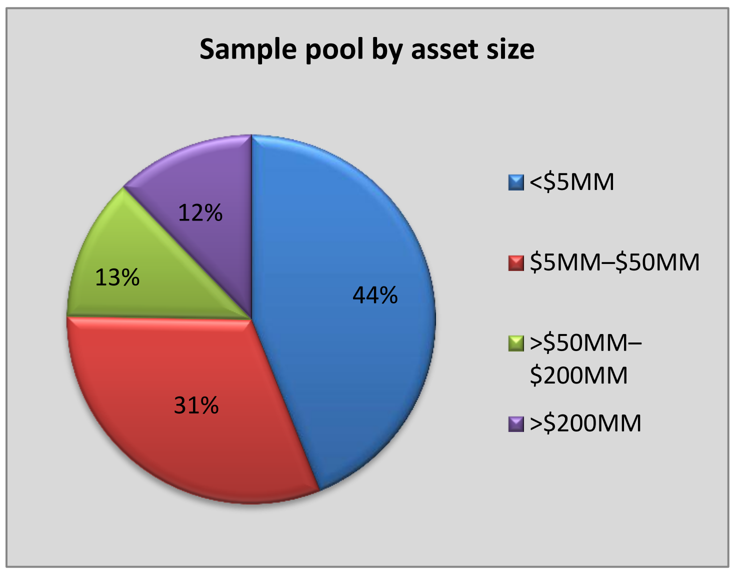

Figure 2. Sample pool by asset size.

Organizing information in this manner allowed averages, such as expense ratio and other information to be calculated for each market segment. To approach a conclusion on how such findings relate to the national composition of defined contribution plans, data on each market segment's share of total DC plan assets was referenced from the PLANSPONSOR survey.

Results

The expected decrease in pricing was observed as a function of plan size. For the micro plan market (the largest pool of plans studied), the average cost of an index mutual fund was 52 basis points (0.52%). Relative to the average pricing of index funds at higher assets levels, the high average price paid by micro plans can largely be associated with the use of index funds that have multiple share classes (R1, R2, R3, R4, ...) The different share classes reflect additional costs layered on top of index funds in order to pay marketing costs for distribution of the funds and for payment of plan services to third parties. In general, the fewer assets in the plan, the higher the cost for the index fund.

Plan Size	Average Index Mutual Fund Cost	Average Participants	Average Asset Size
Micro (<$5MM)	0.52%	21	$ 3,038,437.63
Small ($5MM - $50MM)	0.36%	1473	$ 14,220,443.11
Mid (>$50MM - $200MM)	0.24%	2940	$ 103,006,518.66
Large (>$200MM)	0.12	28208	$ 1,805,562,653.11

Figure 3. Average index mutual fund cost by asset level.

Although breakpoints for funds with multiple share classes are almost impossible to determine outside of internal documents from the issuing fund company, as a general rule of thumb, the lower the number (R1 for example), the more you pay; same fund, same index, just a different "R" share class number.

By comparison, ETFs do not have multiple share classes and despite the fact that no ETFs were present in the 92 plans studied, an average expense can be determined for comparative purposes. By taking the 5 major indexed asset classes from the study and the respective ETFs for each class from the 3 major service providers, an average cost of 18 basis points (0.18%) can be established; a number slightly higher than the 15 basis point (0.15%) average cost recently calculated by BrightScope®.[6]

Large Cap (S&P 500)

Company	Fund Name	Ticker	Cost
Vanguard	Vanguard S&P 500 ETF	VOO	0.06
iShares	iShares S&P 500 ETF	IVV	0.09
SPDR	SPDR S&P 500 ETF	SPY	0.09
		Average	0.08

Mid Cap (S&P 400)

Company	Fund Name	Ticker	Cost
Vanguard	Vanguard Mid-Cap S&P 400 ETF	IVOO	0.17
iShares	iShares S&P 400 MidCap ETF	IJH	0.21
SPDR	SPDR S&P MidCap 400 ETF	MDY	0.25
		Average	0.21

Small Cap (S&P 600)

Company	Fund Name	Ticker	Cost
Vanguard	Vanguard S&P Small-Cap 600 ETF	VIOO	0.16
iShares	iShares S&P SmallCap 600 ETF	IJR	0.20
SPDR	SPDR S&P Small Cap 600 ETF	SLY	0.20
		Average	0.19

International (MSCI EAFE)

Company	Fund Name	Ticker	Cost
Vanguard	Vanguard MSCI EAFE	VEA	0.12
iShares	iShares MSCI EAFE	EFA	0.34
SPDR	SPDR S&P World ex-US ETF	GWL	0.34
		Average	0.27

Fixed Income (Barclays Aggregate Bond Index)

Company	Fund Name	Ticker	Cost
Vanguard	Vanguard Total Bond Market ETF	BND	0.11
iShares	iShares Barclays Aggregate Bond ETF	AGG	0.22
SPDR	SPDR Barclays Capital Aggregate Bond ETF	LAG	0.18
		Average	0.17

Total ETF Average **0.18**

Figure 4. Average ETF Costs

Given that ETFs do not have multiple share classes or minimum asset levels for investment, the expense ratio of ETFs for retirement plans would be the same regardless of plan size. At this rate, index mutual funds only become truly competitive in the large plan market ($200+ million in assets).

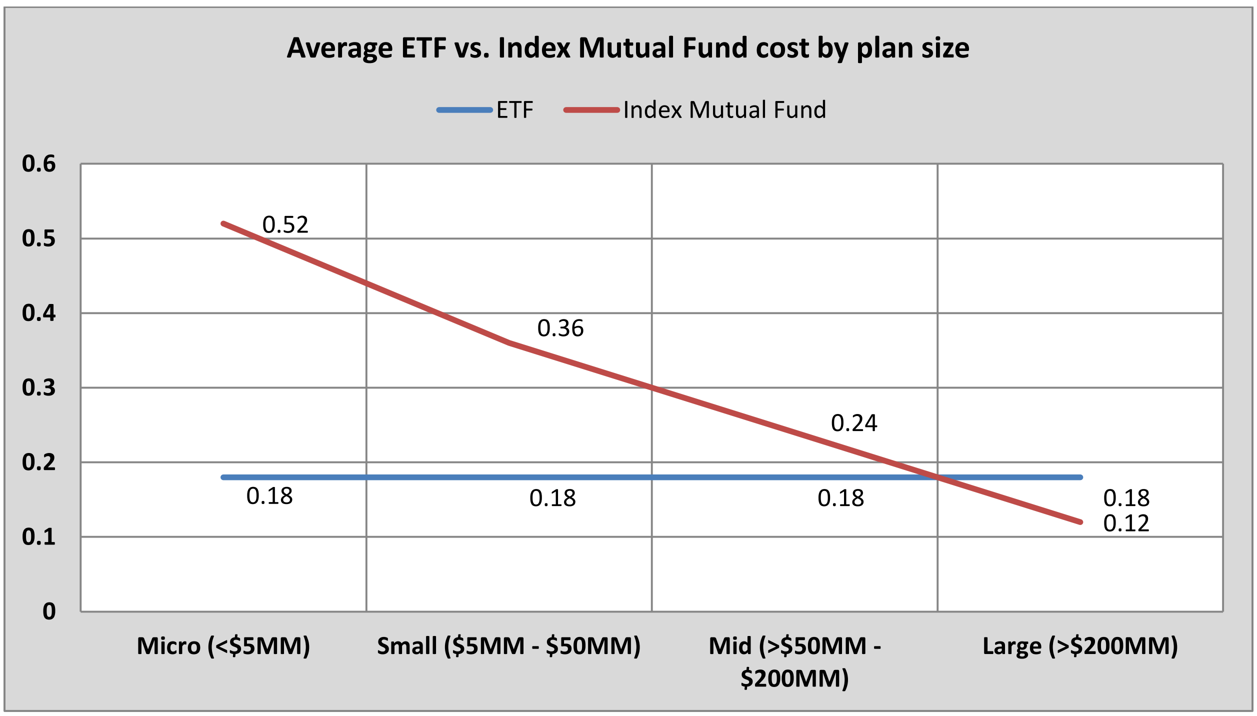

Figure 5. Average Index Mutual Fund cost vs. average ETF cost.

Gauging the impact that ETF cost reduction could have, in terms of the number of U.S. defined contribution plans, can be determined by referencing data reported by PLANSPONSOR Magazine in their 2011 DC Plan Survey (which uses the same asset level breakpoints to categorize plans).

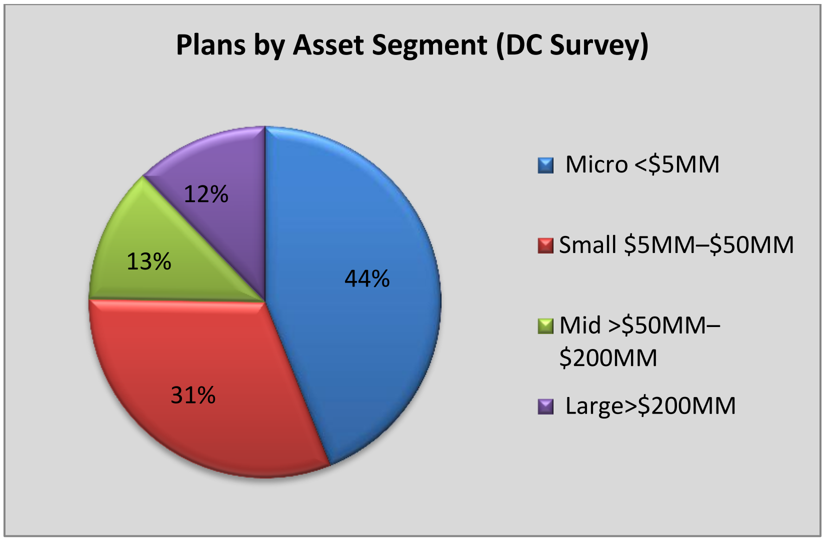

Figure 6. United States Defined Contribution plan assets by market segment.

The PLANSPONSOR data shows that the overwhelming number of plans (88%) in the united states have less than $200 million in assets and therefore would be better served by using ETFs rather than mutual funds for their index investments.

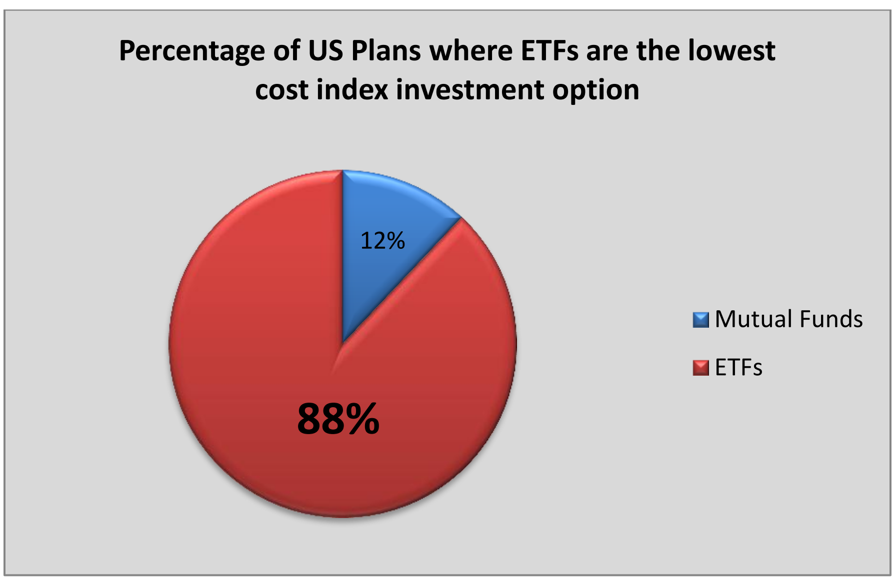

Figure 7. Percentage of Defined Contribution plans in the United States on average that would have lower index investment costs with an ETF.

Conclusion

Whether you've read that "99.4% of actively managed mutual funds underperformed their benchmark indices,"[7] "Over 50% of active managers underperform"[8] or that "In seeking the best fund choices, investors have been steadily moving toward low-cost index funds,"[9] the one constant theme catching contemporary headlines is that passive investment strategies are the superior solution for long-term investors.

Recognizing this, retirement plans across the country are moving away from actively managed funds and toward a passive strategy by including index funds as plan investment offerings. This trend is growing, not simply in the number of index funds offered, but in the asset concentrations accumulating in index funds.

One of the hallmark advantages of index fund investing is the element of low cost; but for defined contribution plans, this benefit is not universally enjoyed. The conditioning of plans to the limitations of mutual funds has resulted in economies of scale which "punish" smaller retirement plans with higher expense ratio index funds. This model has burdened the majority of retirement plans with unnecessarily high costs to invest in a passive investment strategy.

As the popularity of passive investing grows, fueled by new federal regulations for Fee Disclosure which requires companies (especially smaller ones[10]) to ensure the "reasonableness" of investment fees, more plans will find by comparison, that participants will be better served using an ETF strategy to invest in an index rather than a mutual fund. This awakening will almost certainly be the much anticipated point of "breakout," for ETFs in retirement plans.

About the Author

Neil Plein is Vice President of Invest n Retire, LLC, a record keeper for tax-deferred retirement plans, located in Portland, Ore. Known for his objective work in the contemporary analysis of defined contribution plan technology, Neil is widely quoted as an expert source in *The Wall Street Journal*, *Investor's Business Daily*, *Bloomberg Businessweek*, *CNBC*, *PLANSPONSOR Magazine*, *Workforce Magazine* and other major industry-specific publications. He also writes for *ETF Guide*, where his articles are syndicated through *NASDAQ News*, *Yahoo! Finance* and other major web-based finance news sources. Additionally, he is a regularly featured guest on radio shows such as the Index investing Show and the Financial Impact Factor.

[1] Lieber, Ron, "Why 401(k)'s Should Offer Index Funds," The New York Times, May 13, 2011. http://www.nytimes.com/2011/05/14/your-money/401ks-and-similar-plans/14money.html?pagewanted=all

[2] Robertson, Stuart, "Three reasons index fund 401(k) plans are taking off," Forbes, June 1, 2011. http://www.forbes.com/sites/stuartrobertson/2011/06/01/three-reasons-index-fund-401k-plans-are-taking-off/

[3] Solin, Dan, "Your 401(k) Plan Could Be Illegal," Huffington Post, May 17, 2011. http://www.nytimes.com/2011/05/14/your-money/401ks-and-similar-plans/14money.html?pagewanted=all

[4] McKinsey, "Winning in the Defined Contribution Market of 2015," published 2010. www.mckinsey.com/clientservice/.../~/.../DC_2010_Final.ashx

[5] Plansponsor Magazine "2011 DC Survey." http://www.plansponsor.com/2011_DC_Survey.aspx

[6] Moeller, Phil, "ETFs Slowly Moving Into 401(k) Plans," US News, June 15, 2011. http://money.usnews.com/money/blogs/the-best-life/2011/06/15/etfs-slowly-moving-into-401k-plans

[7] Barras, Laurent, Scaillet, O., Wermers, Russ, "False Discoveries in Mutual Fund Performance: Measuring Luck in Estimated Alphas," March, 2008: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=869748

[8] DeLegge, Ron, "S&P Report: Over 50% of Active Managers Underperform," ETF Guide, March 8, 2011. http://www.etfguide.com/research/520/7/S-P-Report:-Over-50Percent-of-Active-Managers-Underperform/

[9] Moeller, Phil, "Most Active Funds Continue To Trail Index Performance," US News, August 30, 2011. http://money.usnews.com/money/blogs/the-best-life/2011/08/30/most-active-funds-continue-to-trail-index-performance

[10] Harvey, Lou, "A sense of disclosure," CFO Magazine, May 1, 2011. http://www.cfo.com/article.cfm/14570384/c_14570395

