

## Why Do Plan Costs Vary?

Plan costs are dependent on specific plan assets.

By Hubert Lum

**R**ecent events in the defined contribution world have put a spotlight on plan fees. An increasing number of plan sponsors are asking the question: Are our 401(k) total plan costs reasonable? This article will provide plan sponsors with a powerful tool to measure and manage their plan costs.

In CEM's 2005 universe, total plan cost ranged from six basis points (bp) to 154 bp. Was the lower total cost number more reasonable than the higher total cost number? Given information on only total cost, it is impossible to say. Comparisons between plans on a total cost basis will not yield meaningful results because they will include plans that have completely different characteristics.

### Factors That Impact Plan Cost

To determine whether a plan's costs are reasonable, we need to understand the factors that impact costs. The data for this analysis was drawn from CEM's defined contribution annual investment performance database. In 2005, the database included 88 plans with total assets of \$512 billion covering 8.3 million participants.

Our research has identified three key drivers of plan costs:

- Plan size
- Participant account size
- Asset mix

### Plan Size

Costs decrease as plan size increases due to economies of scale. Large plans enjoy a substantial cost advantage over small plans. In 2005, the average total cost for plans less than or equal to \$0.5 billion was 71 bp compared to 28 bp for plans in excess of \$10.0 billion. The difference is shown in Exhibit 1.

### Participant Account Size

Costs decrease as the average participant account size increases. For two similarly-sized plans, the plan with fewer participants and larger average account size will have lower administrative costs, such as recordkeeping costs.

In 2005, fiduciary and administrative costs were 19 bp for unbundled plans with an average account size of less than \$55,000 versus 15 bp for unbundled plans with an average account size equal to or greater than \$55,000. For a

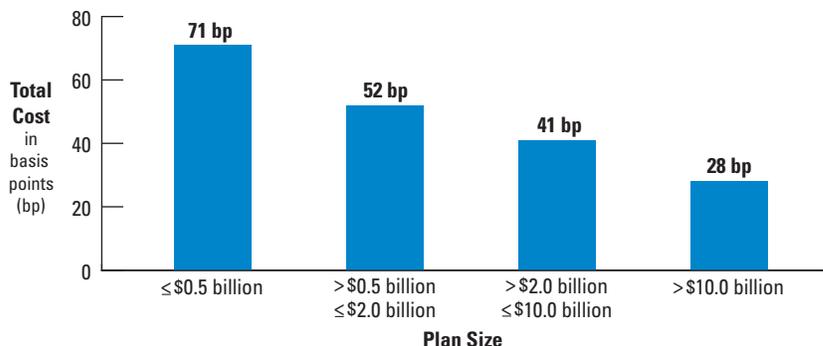
plan with assets of \$5.8 billion, which was the average size of plans in our 2005 universe, this 4-basis point difference equates to \$2.3 million in additional recordkeeping costs.

When you compare your plan's administrative and fiduciary costs to that of other plans, it is important to differentiate bundled from unbundled cost arrangements. In bundled cost arrangements, some or most of the administrative and fiduciary costs are included with investment management fees. These plans generally have lower administrative and fiduciary costs. However, our research has shown that the type of arrangement — bundled or unbundled — is not a significant determinant of total plan cost.

### Asset mix

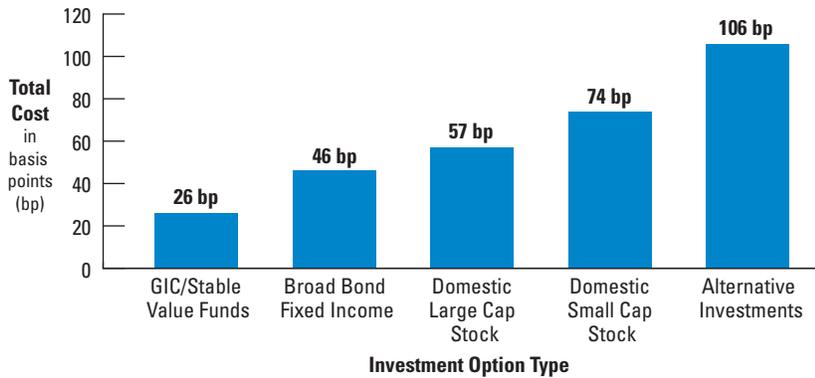
Costs rise as the proportion of total assets invested in domestic small cap

Exhibit 1: Impact of Plan Size on Total Cost



Source: CEM Benchmarking Inc.

**Exhibit 2: Average Total Cost by Type of Investment Option**



Source: CEM Benchmarking Inc.

stock and alternative investments (real estate, private equity and hedge fund options) increases. Costs decrease as the proportion of total assets invested in traditional GICs, company stock, mutual fund windows, and self-directed brokerage accounts increases. Small cap stock and alternative investments were, on average, more costly than other investment options in 2005. This is shown in Exhibit 2.

## Are Your Total Plan Costs Reasonable?

The critical element of our cost analysis is our benchmark cost calculation. This calculation is not a theoretical construct. It uses actual data from plans in our database. The data is subjected to standard statistical analysis. The result is a statistical equation, which we call a benchmark cost equation. It relates total plan cost to plan size, average participant account size, and aggregate asset mix.

We then apply the benchmark cost equation to a specific plan. We predict a specific plan's total cost given its particular total size, average account size, and asset mix. Finally, we adjust this benchmark cost value for a plan's hidden-cost and low-cost assets. The result is a unique benchmark cost number for any given plan.

To illustrate, we have applied our 2005 benchmark cost equation to an

example plan. The benchmark cost for our example plan is 45.5 bp. This is shown in Exhibit 3.

Once we have determined a plan's benchmark cost, we can compare it to the plan's actual cost. The comparison tells us whether the plan's cost is higher, lower, or in line with its benchmark cost. In other words, we have a single powerful indicator to determine whether or not a plan's total costs are reasonable.

## Factors That Explain Higher Costs

If we assume that our example plan's actual cost was, say, 60.0 bp, its actual cost would have been 14.5 bp higher than its benchmark cost. Our research shows that two implementation style reasons explain why actual cost often exceeds benchmark cost:

- Higher proportion of retail mutual funds
- Higher proportion of plan assets managed actively

## Higher Proportion of Retail Mutual Funds

Costs rise as the proportion of assets invested in retail mutual funds increases because retail mutual fund options are typically more costly than institutional accounts. (Retail mutual funds are widely available to individual investors whereas institutional accounts are not.)

Based on 2005 cost data, a plan with 100 percent of its assets invested in

**Exhibit 3: Benchmark Cost Calculation**

	Example Plan Value <sup>1</sup> (A)	2005 Benchmark Cost Coefficient <sup>2</sup> (B)	Example Plan Benchmark Cost (A × B)
Constant or Starting Estimate		131.7	131.7 bp
Plus Plan Size in \$millions (log 10)	3.0	-14.3	-42.9 bp
Plus Participant Account Size in \$thousands (log 10)	2.0	-25.2	-50.4 bp
Plus Asset Mix:			
% Small Cap Stock	10.0%	46.3	4.6 bp
% Alternative Assets	5.0%	150.3	7.5 bp
% Hidden Cost and Low Cost Assets	10.0%	-50.5 <sup>3</sup>	-5.0 bp
Equals Benchmark Cost			45.5 bp

Source: CEM Benchmarking Inc.

<sup>1</sup> Our example plan has these characteristics: plan size of \$1 billion, average participant account size of \$100,000, small cap stock assets of \$100 million, alternative assets of \$50 million and hidden cost and low cost assets of \$100 million.

<sup>2</sup> The first five coefficients, including the constant, are the result of a regression of total plan cost against plan size (log 10), average participant account size (log 10), the per cent of total assets invested in small cap stock and the per cent of total assets invested in alternative assets. These coefficients are significant at the 95% confidence level. The overall equation, after adjusting for hidden cost and low cost assets, explains 56% of the variation in total plan costs.

<sup>3</sup> The coefficient for the per cent of hidden cost and low cost assets is the total of the first five values found in column four, titled Example Plan Benchmark Cost. The sign is negative since hidden cost and low cost assets reduce the benchmark cost.

## Administration | Why Do Plan Costs Vary So Much?

retail mutual funds was 11 bp more costly than a plan with 100 percent of its assets invested in institutional accounts.

### Higher Proportion of Plan Assets Managed Actively

Costs increase as the proportion of a plan's assets managed actively

increases. Active management costs more than passive management since active management is expected to outperform a market index return whereas passive management is expected to replicate a market index return.

Based on 2005 cost data, a plan with 100 percent of its assets managed active-

ly would be 34 bp more costly than an equivalent plan with 100 percent of its assets managed passively. 

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