

The importance of benchmarking
for pension administration and
investment operations.

Measure and manage what matters.



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About CEM Benchmarking Inc.

- CEM is an independent provider of objective, actionable, and strategic benchmarking information for pension funds worldwide.
- We were founded in Toronto, Canada in 1992.
- Clients provide us with detailed cost and performance data. In return, we provide reports that compare them with a tailored peer group of other CEM clients.
- In total, we serve over 400 pension schemes in the US, Europe, Canada, Australia, and Asia including 50 of the world's top 100 pension schemes.
- CEM's databases are used for global pension research studies both internally at CEM and externally by leading academic researchers.

Here is a partial list of our worldwide clients.

National Funds

AP2 – Sweden
AP3 – Sweden
ATP - Denmark
Australia Future Fund
Canada Pension Plan Inv. Bd.
French Pension Reserve Fund
Irish Pension Reserve Fund
Korea Investment Corporation
New Zealand Super Fund
Norway – Govt. Pension Fund

U.S. Funds

Boeing
CalPERS
CalSTRS
Florida Investment Board
IBM
Indiana Public Employees
Indiana State Teachers'
Iowa Public Employees'
Koch Industries
Louisiana Teachers' RS
Lucent Technologies
Motorola
Missouri State Employees
Ohio Public Employees
Ohio State Teachers

Philips, U.S.

Oregon Public Employees
Qwest
School Employees of Ohio
Texas Teachers'
The Thompson Corporation
UFCW – Northern California
United Parcel Service
Verizon Communications
Washington State Inv. Board
Wisconsin Investment Board

Canada

Alberta Investment Mgmt.
British Columbia IMC
CIBC
Caisse de Dépôt
CPP Investment Board
Hydro Quebec
Local Authorities of Alberta
Manitoba Teachers
Ontario Municipal Employers
Ontario Power Generation
Ontario Teachers'
OpTrust
Petro Canada
Royal Bank
Saskatchewan Teachers

Australia/New Zealand

Australia Super
Future Fund
NZ Earthquake Commission
Sun Super
VFMC

Europe

ABN AMRO - Netherlands
ABP/APG - Netherlands
ATP - Denmark
KLM - Netherlands
Cordares - Netherlands
Doctors' Fund – Netherlands
Dow - Netherlands
DSM – Netherlands
Horeca & Catering - Netherlands
Ilmarinen - Finland
Local Government Fund - Finland
MN Services/ PME - Netherlands
MN Services/ PMT - Netherlands
PGGM/PFZW - Netherlands
Philips – Netherlands & UK
Shell - Netherlands
State Pension Fund – Finland
USS – United Kingdom
Varma - Finland
VB – Dutch Industry Funds

How do our clients use the analysis we provide?

Discharge fiduciary responsibilities

- Demonstrate oversight using objective metrics accepted by leading funds.

Understand how costs and service delivery compare with other schemes

- Understand the factors that influence costs.
- Understand what other schemes measure and how they perform.

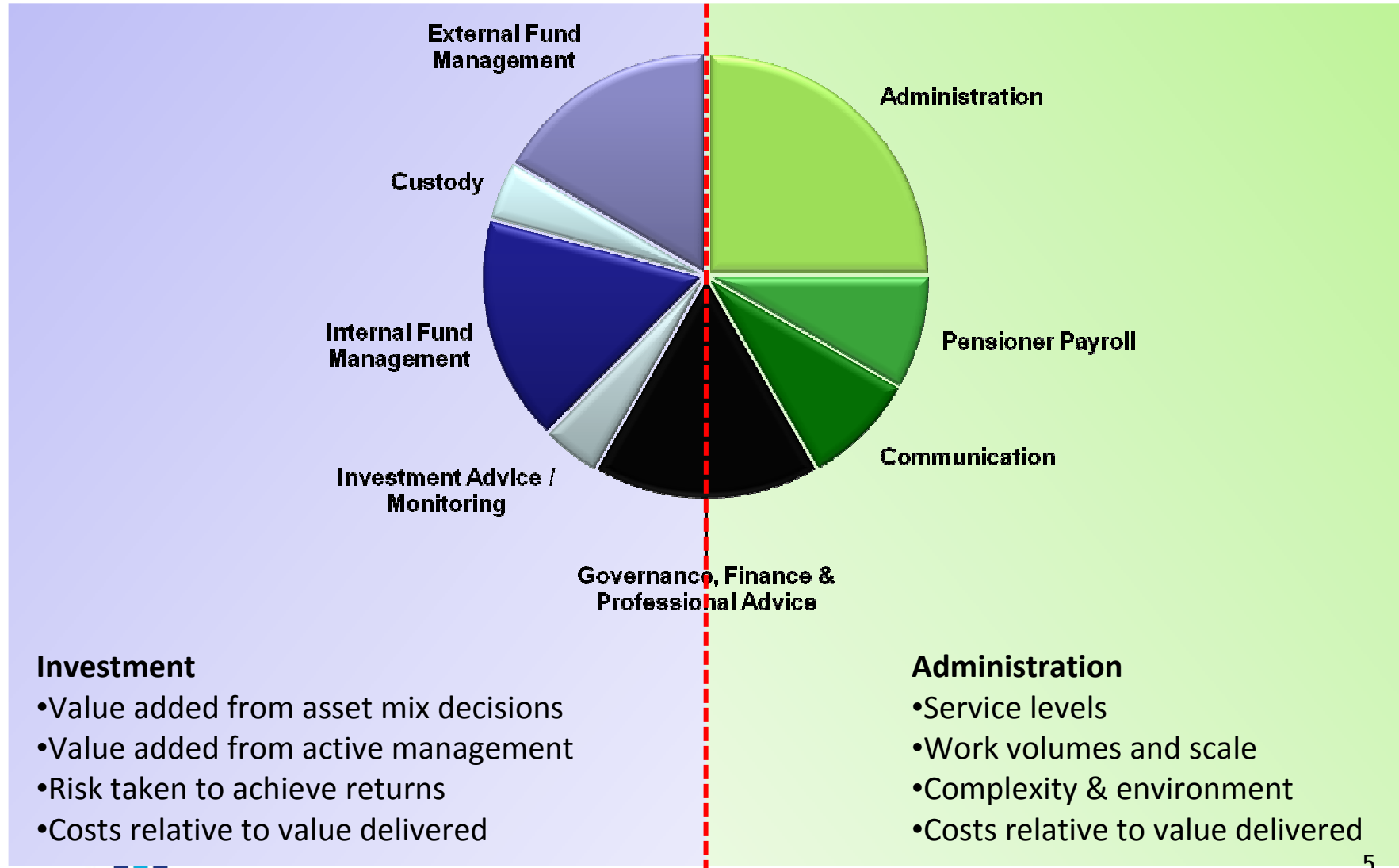
Develop performance goals and drive performance improvements

- Develop a performance framework.
- Set realistic objectives both over time and relative to peers.
- Measure the impact of major operational changes.

Other uses

- Use the data to support fee and service negotiations with providers.
- Support business cases for investments in people or infrastructure.

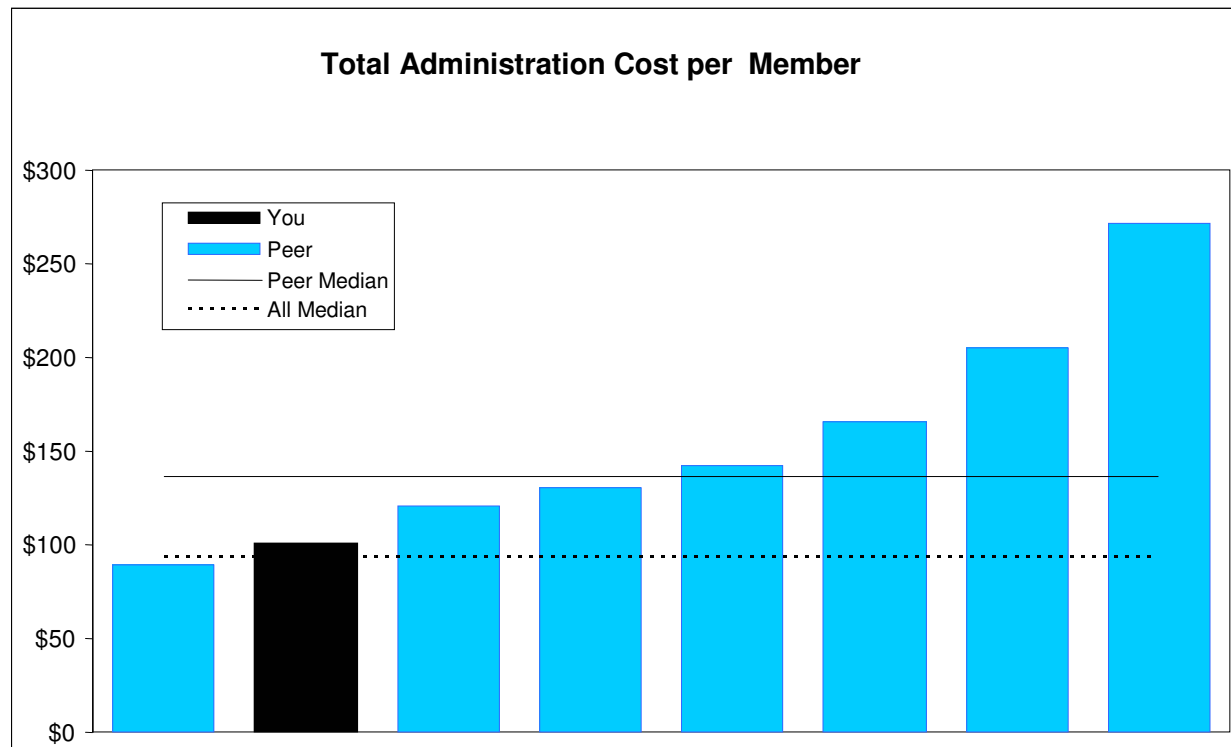
Different measures for different functions



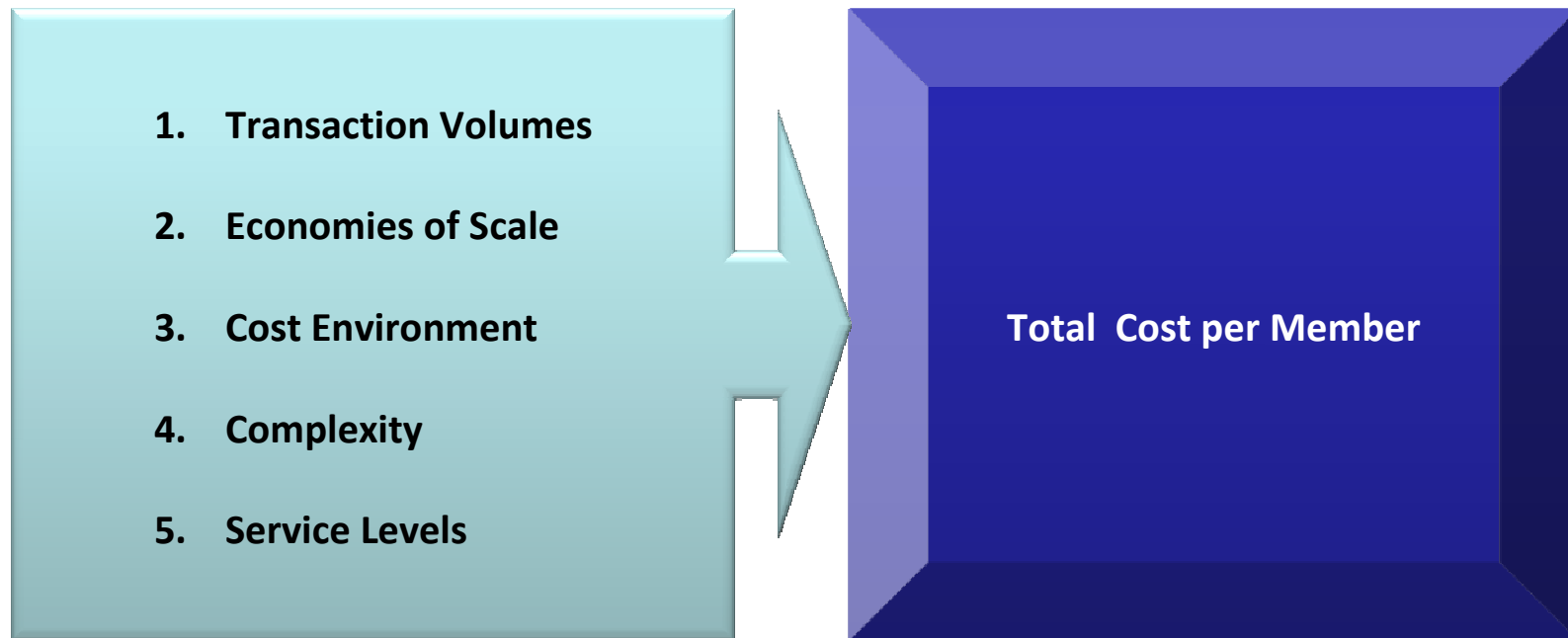
Methodology: Pension administration cost comparisons

We show how your total costs compare with your peers:

- Cost per member
- Cost per transaction
- Trend analysis



Methodology: Factors that impact administration costs



Factors that impact cost: Transaction types and volumes

The number and type of transactions processed by your scheme impacts cost. Schemes with higher transaction volumes and higher volumes of more expensive transaction types will have higher costs.

The table to the right provides a summary-level example of transaction comparisons.

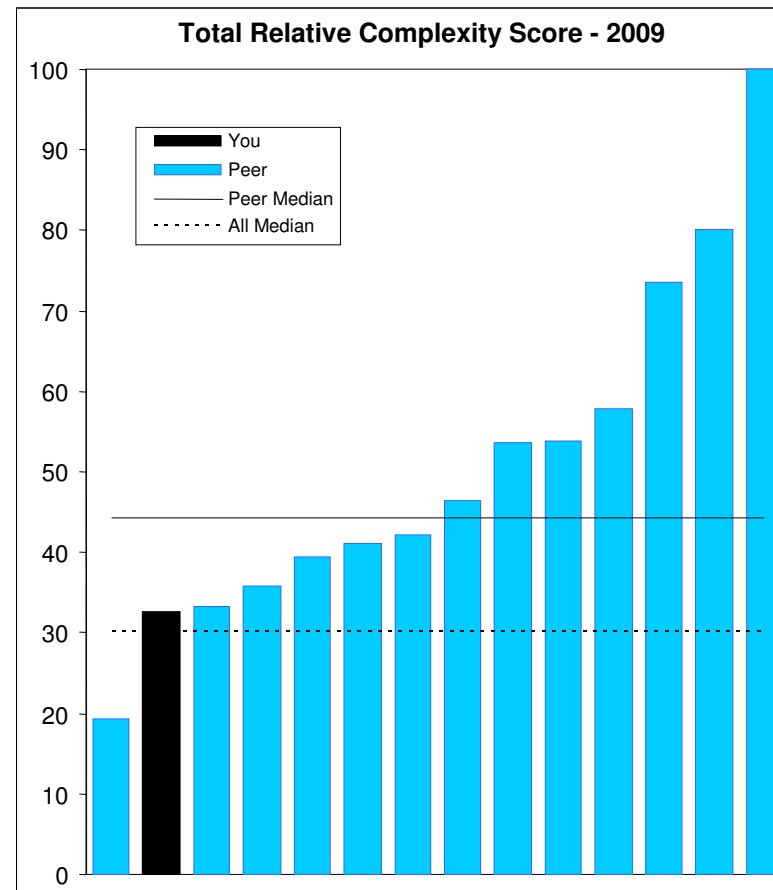
Transaction Type	Do you process More or Less than your peers?
Pension payments	1% Less
Newsletters for pensioners	48% Less
Retirements - active members	71% More
Retirements - deferred members	6% More
1-on-1 counselling	100% Less
Presentations to members	2% Less
Incoming calls from members	Similar
Newsletters for active members	48% Less
Pension estimates (quotations)	46% Less
Leavers - refunds	60% More
Transfers out	23% Less
Transfers in	27% More
New members	36% More

Factors that impact cost: Complexity

Under Complexity, we look at a range of factors to help you understand how you compare:

- Multiple plans and plan types (DB/DC)
- Multiple payroll interfaces
- Government pension offsets
- Definitions of pensionable salary
- Benefit and pension rule sets

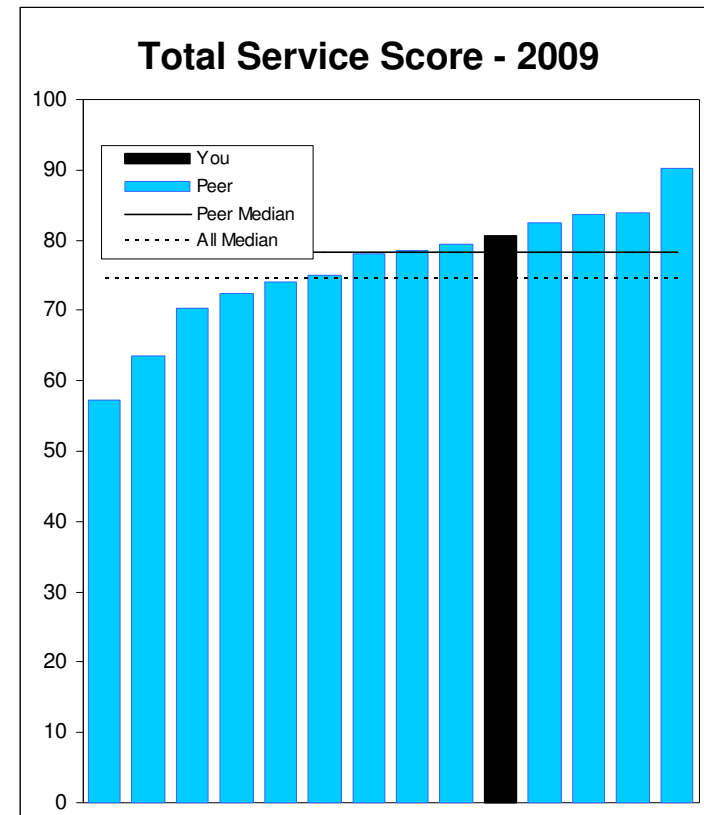
All pension schemes face complexity challenges, but schemes with very high relative complexity have higher costs.



Factors that impact cost: Service Levels

Turnaround times for transactions are an important measure of service – but service is about more than turnaround times. We build up a more complete picture. For example:

- Number of hours the scheme's office is 'open for business'
- Number of 'menu layers' on telephone services
- Telephone wait times
- How much information can be provided immediately on the telephone?
- How many services can members access on-line?
- Is on-line information / functionality linked to data that is specific to the member?
- Can members meet one-to-one?
- Is there a break between a new pensioner's last employed salary payment and their first pension installment?
- Satisfaction surveying – what is surveyed and when are surveys completed?
- Content and timing of benefit statements?
- Are newsletters or a copy of the scheme's accounts issued to members?



Comparisons with peers - Telling the performance story

When we bring all of these factors together we can tell your scheme's 'story'.

Factor	Measure	You	Peer Median	Cost Impact (You vs. Peer)
1. Transaction Volumes	Transaction Volume Score	88	103	Decreasing
2. Economies of Scale	Total Volume: Active Members & Annuitants	124,900	119,700	Neutral
3. Business Cost Environment	Comparable Wage Index	0.7	0.9	Decreasing
4. Plan Complexity	Total Relative Complexity (0 least - 100 most)	40	18	Increasing
5. Service Levels	Total Service Score	74	76	Neutral

This scheme is complex relative to its peers. It processes fewer transactions and operates in a low cost environment. Size and service levels should not materially affect its costs relative to its peer group.

Therefore, we would expect its costs to be lower than its peers.

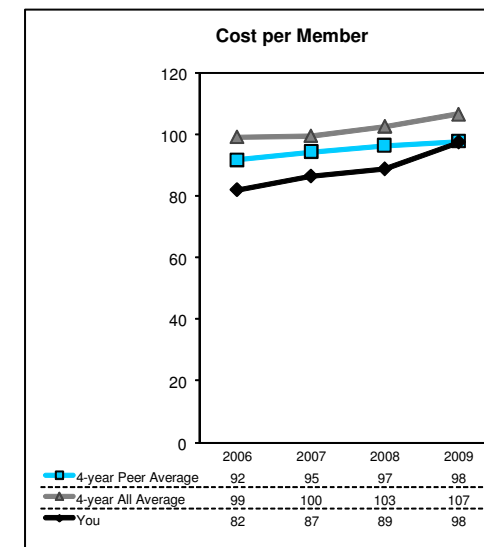
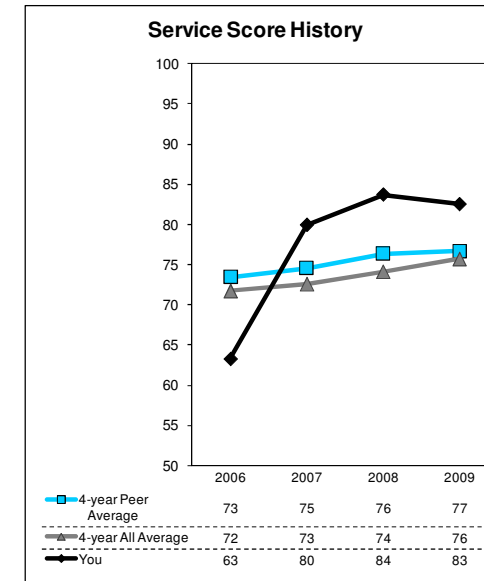
What gets measured gets managed.

Total Service Scores have increased for CEM pension administration participants.

Costs have grown by less than inflation.

Participants have used benchmarking for:

- Goal Setting - The more clearly you understand and can communicate your objectives, the easier it is to achieve them.
- Targeting 'low hanging fruit' to improve service.
- Better budgeting through better understanding of tradeoffs between costs, transactions, and service levels.



Methodology - Benchmarking investment costs

The starting point is calculating a Benchmark Cost for your fund – an estimate of what your cost would be using your asset mix and peer median costs. The primary criteria for peer groups is fund size because size impacts costs.

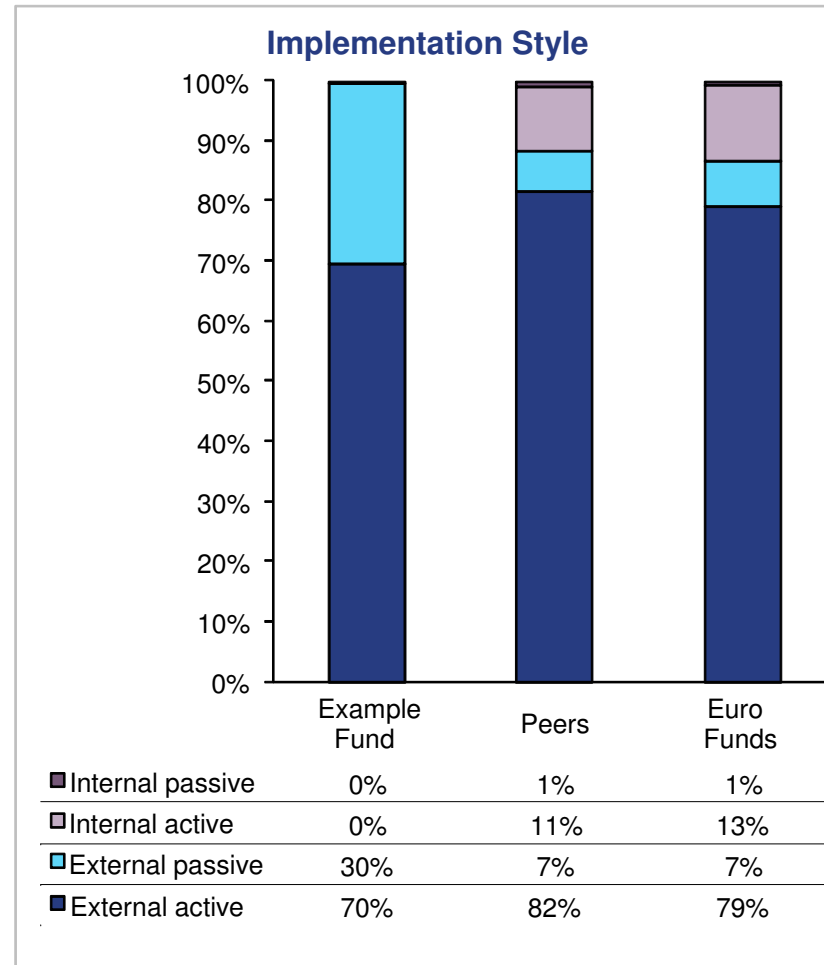
We compare your Benchmark Cost with your Actual Cost to determine an 'Excess Cost'.

	In €000's	Basis Points
Example Fund actual cost	4,701	42.6 bp
<u>Example Fund benchmark cost</u>	<u>4,733</u>	<u>42.9 bp</u>
Example Fund excess cost	(31)	(0.3) bp

Methodology - Implementation style decisions impact cost status.

External active management styles is much more expensive than Internal or Passive management styles.

Fund of Funds are more expensive than investing directly in private asset classes because an extra fee layer is applied.



Methodology - What you pay for investment services and fund oversight impacts your cost status.

We show you how all of your line item costs compare to your peers.

Impact of Differences in External Investment Management Costs				
	Your 2009		Peer	Impact of the difference in €000s
	Avg Holdings in €mils	Cost in bp	Median Cost in bp	
Stock - Europe - Passive	92	2.2	3.4	-11
Stock - Europe - Active	187	56.8	35.4	402
Stock - Asia-Pacific - Active	589	91.5	41.9	2,921
Stock - All US - Active	502	106.3	28.6	3,901
Stock - Emerging - Active	531	114.2	74.3	2,118
Stock - Global - Active	54	57.4	47.1	55
Fixed Income - Euro - Active	192	18.1	15.7	45
Fixed Income - High Yield - Active	194	5.1	36.2	-605
Real Estate ex-REITs - Active	869	66.7	64.7	174
Hedge Funds - Active	1,208	183.0	108.1	9,044
Hedge Funds - Active Fund of Fund	527	248.3	265.7	-920
Venture Capital/LBO - Active	1,236	158.7	144.6	1,738
Total External Investment Management Impact in €000s				18,862
Total External Investment Management Impact in basis points				7.3 bp

Investment costs in the context of performance

Investment costs are important (all too often this is underestimated!), but should not be considered in isolation. Costs should be considered in the context of both fund performance and risk.

Performance:

We analyze the returns and value added generated from two key decisions:

1. Asset allocation
2. Active management (“Implementation Value Added”)

Risk:

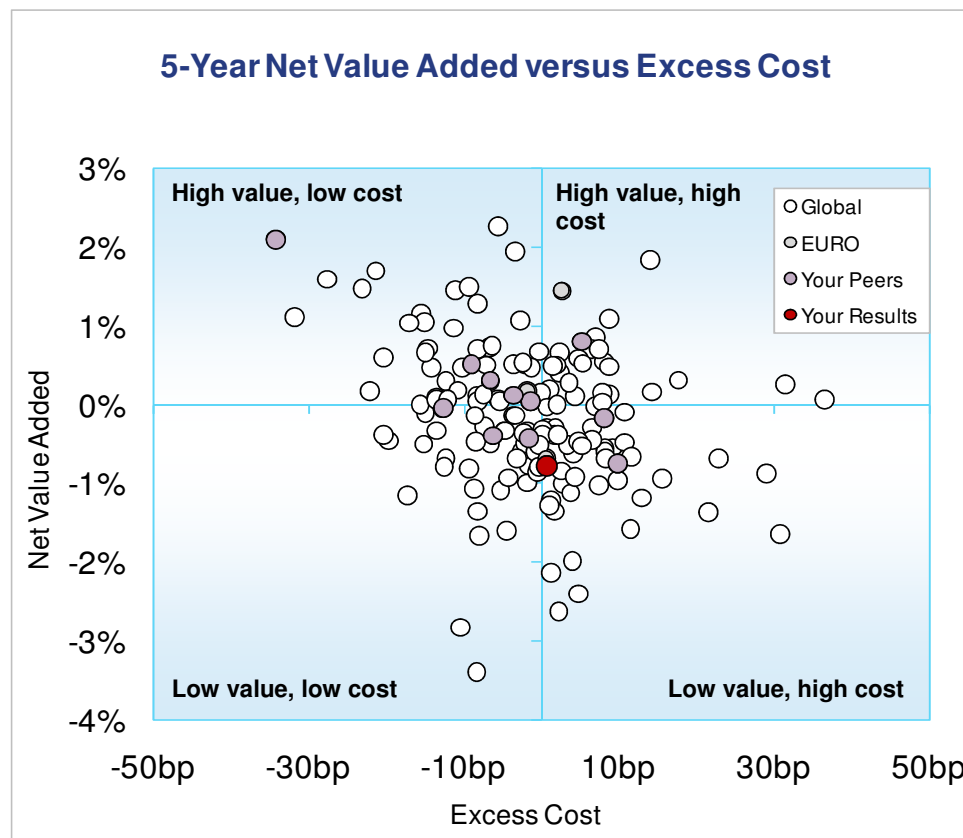
We analyze the volatility and risk associated with:

1. Asset - liability mismatch, or “surplus” risk
2. Policy asset mix
3. Active management, or “tracking error”

Paying more does not get you more.

If paying more got you more, the data in the cost effectiveness chart would cluster from the bottom left to the top right. It does not.

This is powerful empirical support for one of our central themes: it is important to measure and manage your costs.



* Net value added is total return less policy (benchmark) return and costs. It is the value generated by active management relative to a fund's passive policy position.

Key Takeaways

- What gets measured gets managed, so it is critical that you measure and compare what matters.
- Costs matter and should be managed.
- Benchmarking helps you to:
 - Discharge your fiduciary responsibilities
 - Make better business decisions
 - Drive performance improvements

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