

**Finnish pension fund
Investment cost effectiveness analysis reports 2011
by
CEM Benchmarking Inc.**

Preface

Finland has a pension system that, in a unique way, combines a compulsory legislative basis, similar benefits for all, partial funding and private organization of the pension provision. It is a hybrid, fulfilling the functions of first and second pillar pensions within the same scheme. The main pension scheme is a legislated and compulsory earnings-related scheme, which is supplemented by the residence-based, flat-rate pension scheme.

In order to get a fresh international view of the Finnish pension system, the Finnish Centre for Pensions decided in 2011 to commission an independent evaluation study of the Finnish pension scheme. The purpose of the evaluation was to get a forward-looking external view of the Finnish pension system from an international perspective, including recommendations.

The evaluation focuses on the following issues:

1. The adequacy of pensions and the financial sustainability of the system:
 - the roles of the earnings-related pension and the residence-based flat-rate pension, and the interplay of these
 - the functioning of the economic and actuarial incentives of the pension system.
2. The policy design of the Finnish earnings-related pension scheme:
 - how does the Finnish pension system look from the point of view of risk-sharing and social insurance?
 - the impact of the pension system on the economy, the labour markets (incentives to work and to retire), and society in general

- the roles of the state, labour market organizations and other interest groups in the decision-making (pension legislation).
3. Governance issues in the earnings-related pension scheme:
 - the functioning of the organization of pension provision (the roles and relations of various actors in pension provision, including the administrative structures of these organizations)
 - the roles of co-operation and competition between pension providers
 - the administrative efficiency and cost-efficiency of the earnings-related pension system.

We were very lucky that two distinguished experts agreed to undertake this ambitious task. Professor Nicholas Barr from the London School of Economics agreed to evaluate the first two sets of issues outlined above (adequacy and sustainability issues and policy design), and Professor Keith Ambachtsheer, who is Director of the Rotman International Centre for Pension Management, Rotman School of Management, University of Toronto, to evaluate the governance issues. Both Barr and Ambachtsheer are internationally well-known and highly regarded experts in the pension field, and their services are frequently utilized internationally.

These two evaluations are the first ones of their kind made of the Finnish pension system. They comprise sharp analyses, which deserve broad attention in the public debate as well as among politicians and decision-makers. They emphasize that Finland has a pension system with many strengths deserving appreciation. They also provide suggestions for possibly making the system even better. The Finnish Centre for Pensions wishes to extend very warm thanks to Keith Ambachtsheer and Nicholas Barr for

accepting our invitation, and for having provided thoughtful and fresh ideas to fertilize the pension policy discussion in Finland. In connection with the evaluation reports by Keith Ambachtsheer and Nicholas Barr, three background papers will also be published. The key results of these three studies are utilized in Ambachtsheer's evaluation, and we wanted to make the results of the studies available in greater detail and hence decided to publish them.

Two of the studies are based on reports provided by CEM Benchmarking Inc. CEM is specialized in providing benchmarking information for pension investment and administration operations. Its clients are pension providers all over the world, who want to benchmark their own performance to the best pension providers in the world. The Finnish Centre for Pensions asked CEM to conduct a comparison of the Finnish pension providers with pension providers using CEM's databases and services. These studies focus on administrative costs and service levels, as well as investment costs.

We wish to thank Mike Heale from CEM Benchmarking Inc. for managing this assignment for us with high professional expertise. Eight Finnish pension providers participated in these studies, and we wish to thank them for being part of the project.

In CEM's analysis, eight Finnish pension providers were combined into a single entity, 'the Finnish Pension Fund', which is compared to individual pension providers. This analysis gives insight into the costs and service levels in Finland compared with those of the peer group chosen from the database of CEM. The report is not meant to describe the costs at the national level, including all first and second pillar pension providers. In order to achieve this broader view, the Finnish Centre for Pensions conducted a

comparative study of the administrative costs of first and second pillar pensions in Denmark, Germany, Finland, the Netherlands, Norway, Sweden and Switzerland. This study, based mainly on publicly available information, was carried out by Antti Mielonen, Eeva Puuperä, Hannu Ramberg and Mika Vidlund from the Finnish Centre for Pensions. We wish to thank them for this essential contribution to the evaluation.

Jukka Rantala
Managing Director

Hannu Uusitalo
Director, Professor

Finnish pension fund Investment cost effectiveness analysis reports

Introduction and discussion of results

On behalf of the Finnish Center for Pensions (FCP), CEM Benchmarking Inc. (CEM) has prepared a cost analysis of the investment operations of the Finnish pension system. The analysis focuses on assessing investment costs for the Finnish pension system for the 2011 fiscal year. To prepare the report, CEM collected standardized pension investment cost, asset mix, implementation style, and performance data from the eight participating Finnish pension funds listed below and an international universe of 291 pension funds with aggregate assets of €3.3 trillion. CEM aggregated the holdings and costs from the eight Finnish funds to create 'Finnish Pension Fund' (FPF) which serves as a proxy for the entire Finnish pension system. FPF's costs were then compared and benchmarked relative to two international peer groups.

Funds that comprise Finnish pension fund

Eläke-Fennia
Etera
Ilmarinen
KEVA
Tapiola
Varma*
VER
Veritas

* Varma did not complete the 2011 CEM pension investment data survey. Their data was created by CEM from a variety of sources including: FCP, Varma 2011 Annual Report, and the CEM Database (using data from other Finnish funds, and historical Varma data).

Overview of data collection and cost benchmarking methodology

The CEM investment benchmarking survey and methodology have been developed over a 21-year period by working with leading global pension funds. All data elements are defined and standardized. In addition, CEM has service and quality control processes in place to ensure the best possible comparability. For this project, these processes included:

- initial group meeting with all Finnish participants to review and discuss the survey
- on-going help-desk support to address any questions or issues
- dialogue with funds about data issues flagged when completed survey received by CEM
- issue and review of individual fund reports and further data corrections if required.

In addition to cost data, the CEM survey includes metrics that facilitate analysis of investment performance including: returns, policy returns (from asset mix decisions) and implementation value added (from active management). Historical survey data was only available to CEM for a small subset of the Finnish participants and one year of data is insufficient for assessing performance. Therefore, only the cost analysis will be reported here.

All investment costs are included in the CEM benchmarking framework with two exceptions:

- Transaction costs (related to buying/selling securities)
- Performance fees for private market asset classes (e.g. Private Equity, Real Estate, Hedge Funds, Infrastructure)

These two costs are excluded because of historical difficulties in obtaining comparable data from participating funds.

The main drivers of pension investment costs are:

- Economies of Scale (funds with more assets under management have a scale advantage)
- Asset Mix (E.g. private equity is much more expensive than public equity)
- Implementation Style (E.g. Active is more expensive than Passive management)
- What funds pay relative to peer funds for similar services and activities.

To assess whether investment costs are reasonable, CEM calculates a benchmark cost for each fund that incorporates these cost drivers. The Benchmark Cost for FPF is an estimate of what FPF's cost would be given its actual asset mix and the median costs that peers pay for similar services. It represents the cost FPF's peers would pay if they had FPF's actual asset mix. Peer groups of 15–20 funds are matched to funds based on size to neutralize scale economies.

FPF's costs were benchmarked relative to two different Peer groups:

1. Large Peer Group: 15 large global funds ranging in size from €35 billion to €232 billion with an average size of €80 billion versus FPF size of €125 billion. Cost benchmarking relative

to this peer group ignores the fact that FPF does not really have the scale economies of a €125 billion fund. It is really an aggregation of 8 smaller funds.

2. Small Peer Group: 20 global funds ranging in size from €9.2 billion to €20.6 billion with an average size of €15 billion. The geographic mix of funds was similar to Large Peer Group. This peer group is close in size to the average actual size of the 8 funds that comprise FPF. It allows for an evaluation of costs given actual scale economies.

Discussion of cost results

FPF's total investment costs were 49.2 bps of assets under management. Direct investment management costs, including all implementation styles (internal/external; active/passive) were 46.8 bps. Oversight, Custodial and Other costs associated with the investment operation were 2.4 bps. These costs exclude non-investment costs related to benefit administration and member service operations.

Somewhat surprisingly, relative to Large Peer Group, FPF is 0.7 bps below Benchmark Cost. FPF is what CEM would consider 'normal cost'. At least a slightly high cost result was expected because FPF does not truly have the scale advantages of the larger funds in this peer group. This normal cost result was primarily due to implementation style: Finnish funds use more low cost internal management and less high cost external active management and fund of funds for private market asset classes. FPF saved 3.9 bps relative to Large Peer Group because of lower cost implementation. Contrasting this, FPF paid 4.9 bps more than Large Peer Group for external investment management. FPF paid 2.0 bps less for internal investment management and 0.2 bps more for Oversight, Custody and Other costs.

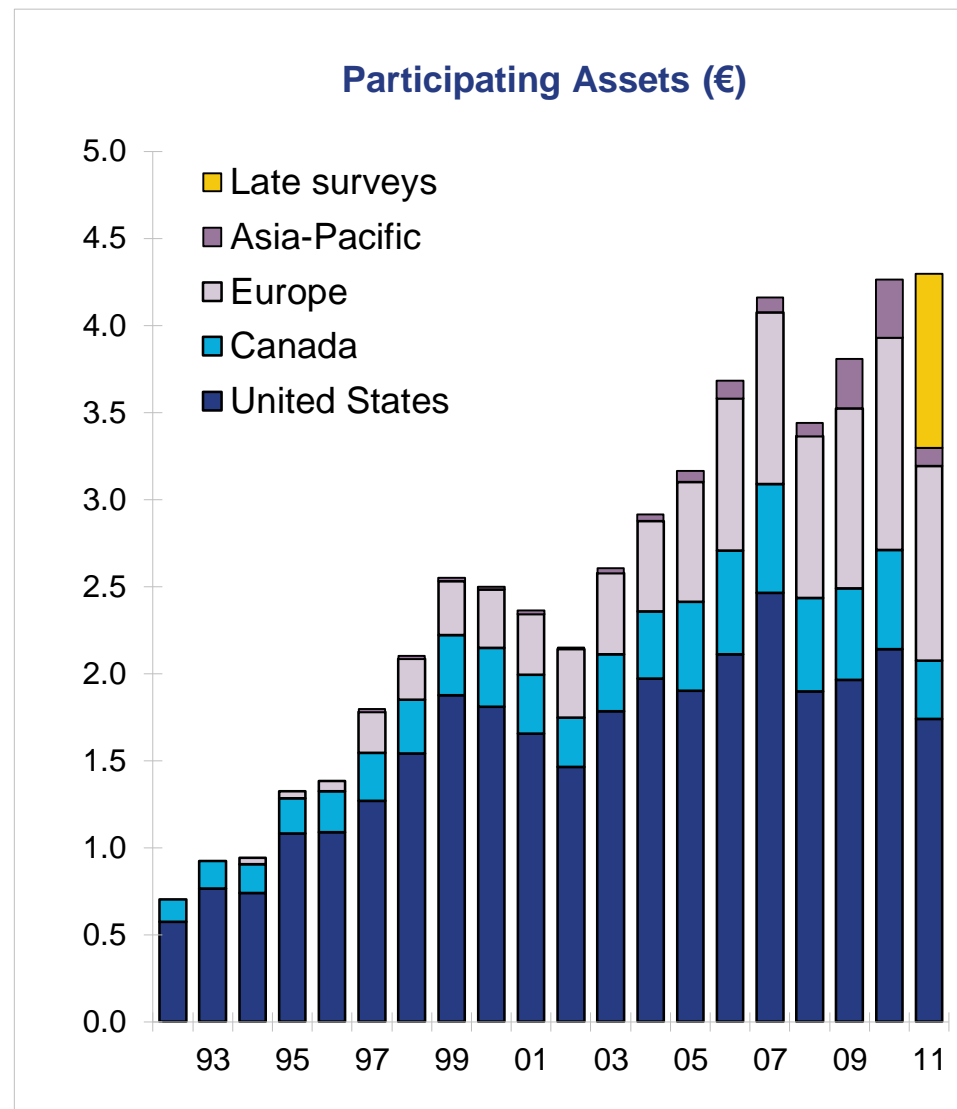
Relative to Small Peer Group, FPF was below Benchmark Cost by 5.2 bps. The Finnish implementation style advantage is even more pronounced relative to this peer group. FPF saved 7.5 bps relative to Small Peer Group because of lower cost implementation. Similar to above, FPF paid 3.3 bps more than Small Peer Group for external investment management. FPF paid 0.2 bps less for internal investment costs. In contrast to above, FPF paid 0.8 bps less for Oversight, Custody and Other costs relative to Small Peer Group.

Large global peers

This benchmarking report compares your cost and return performance to CEM's extensive pension database.

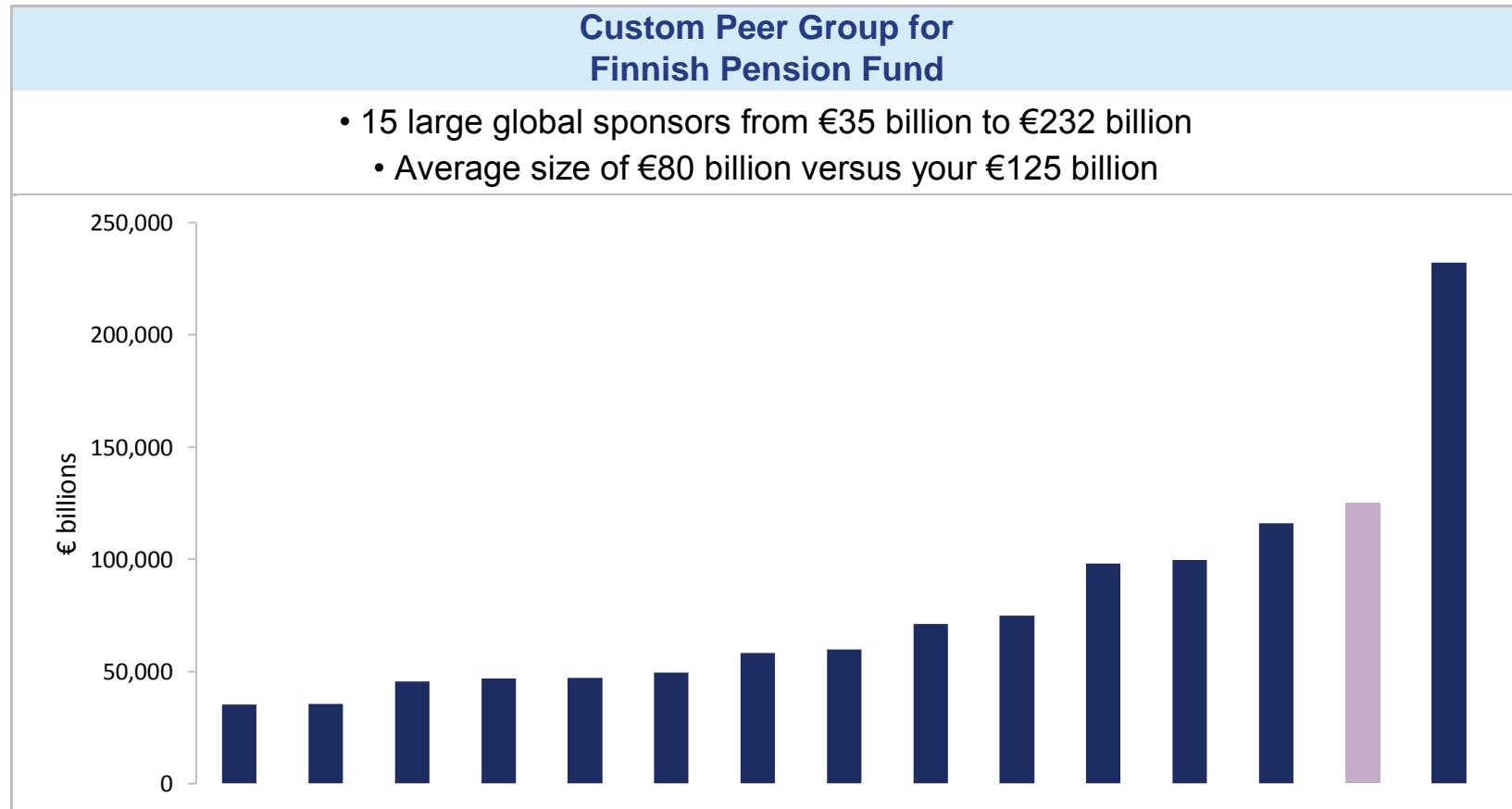
- 174 U.S. funds participate with assets totaling €1.7 trillion.
- 78 Canadian funds participate with assets totaling €335 billion.
- 32 European funds participate with aggregate assets of €1,117 billion. Included are funds from the Netherlands, Norway, Sweden, Finland, Denmark and the U.K.
- 7 Asia-Pacific funds participate with aggregate assets of €105 billion. Included are funds from the Australia, New Zealand and South Korea.

The most meaningful comparisons for your returns and value added are to the Global universe.



DRAFT - Finnish Pension Fund

The most valuable comparisons for cost performance are to your custom peer group because size impacts costs.



All information in this report is confidential and may not be disclosed to third parties without the express written mutual consent of CEM Benchmarking Inc and FCP.

What gets measured gets managed, so it is critical that you measure and compare the right things:

1. Policy Return

How did the impact of your policy mix decision compare to other funds?

2. Net Value Added

Are your implementation decisions (i.e., the amount of active versus passive management) adding value?

3. Costs

Are your costs reasonable? Costs matter and can be managed.

4. Cost Effectiveness

Net implementation value added versus excess cost.
Does paying more get you more?

5. Risk

How much risk was taken to obtain your value added?
What is the risk of your policy mix?

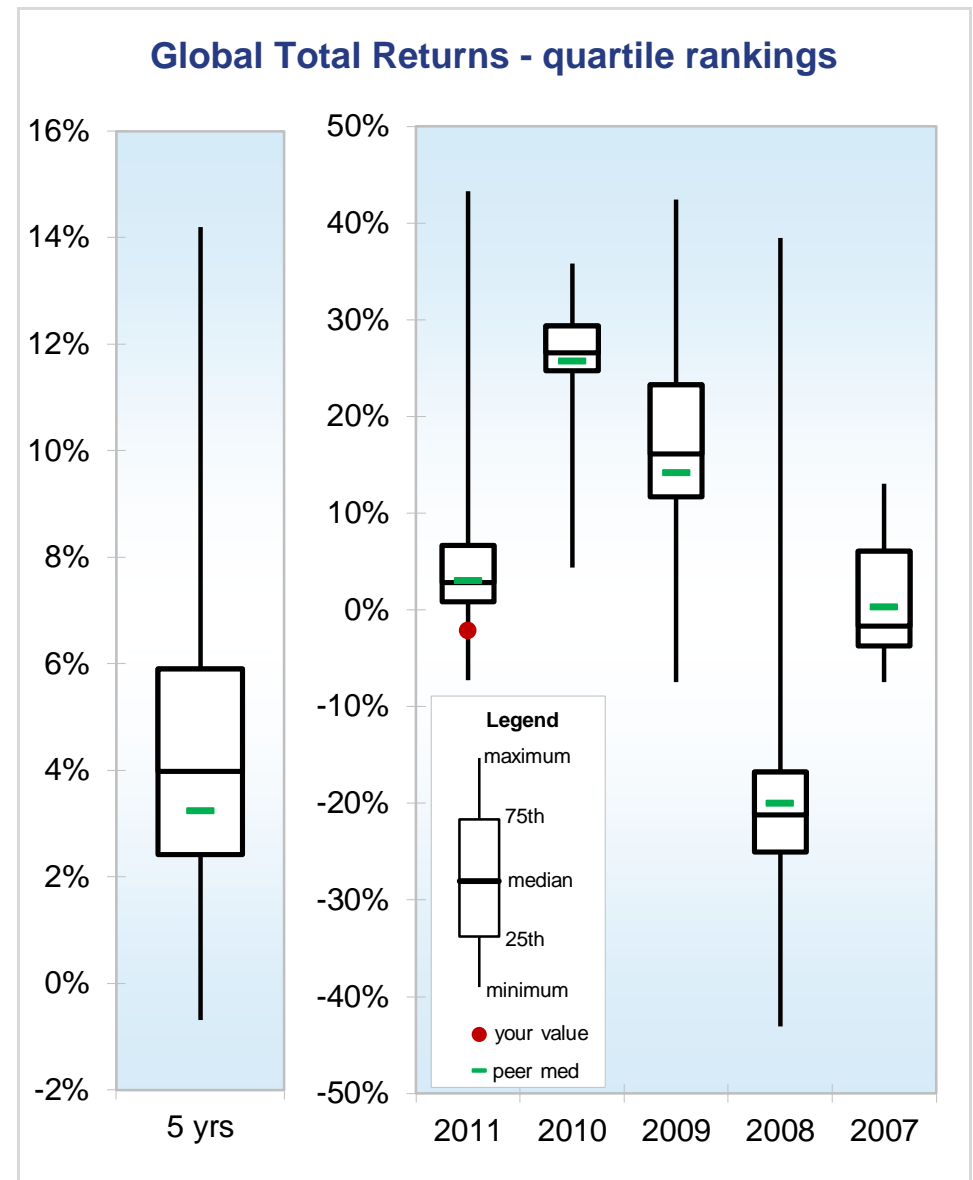
Your 2011 total return of -2.2% was below the Global median of 2.8%.

Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return, cost and value added.

	Your 2011
Total Fund Return	-2.2%
- Policy Return	-1.9%
- Cost	0.5%
= Net Value Added	-0.8%

This approach enables you to understand the contribution from both policy mix decisions (which tend to be the board's responsibility) and implementation decisions (which tend to be management's responsibility).

Actual and policy returns have been converted to your currency using unhedged currency returns.



1. Policy Return

Your 2011 policy return of -1.9% was below the Global median of 2.6%

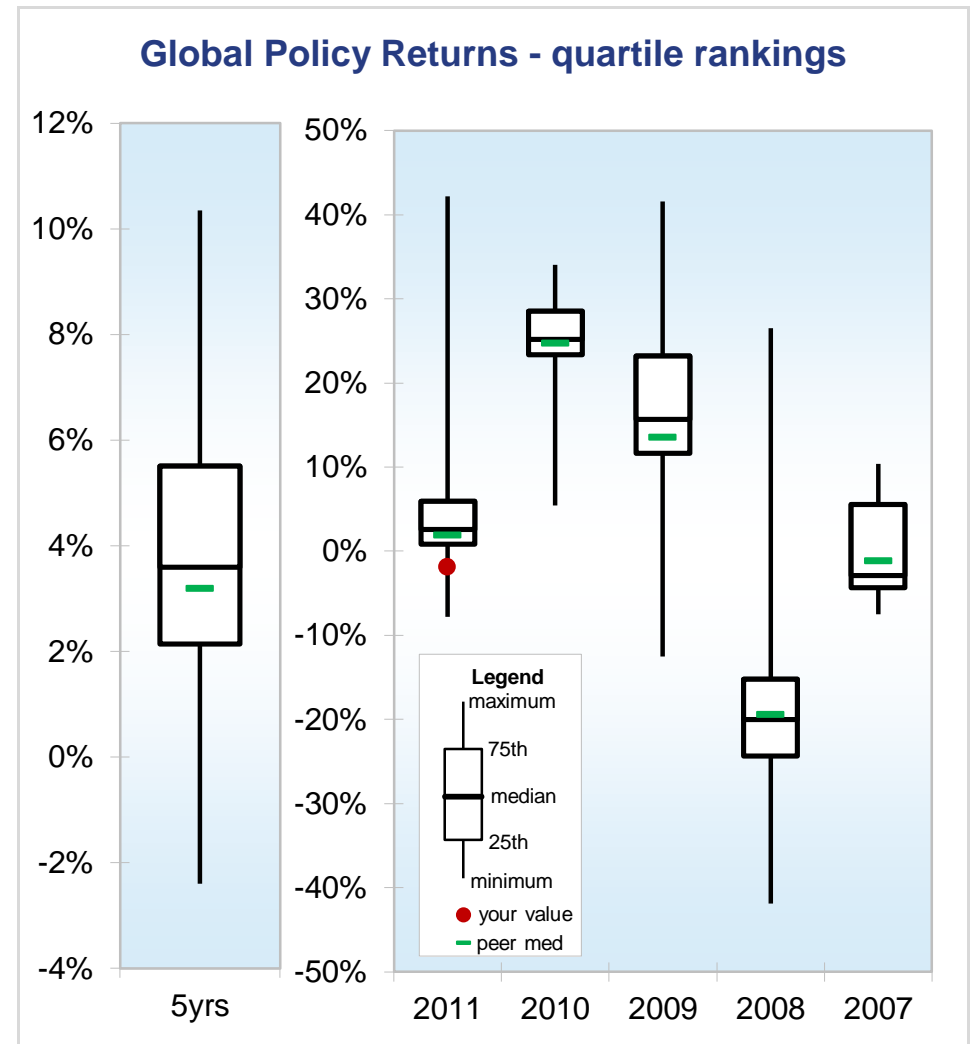
Your policy return is the return you could have earned passively by indexing your investments according to your policy mix.

Having a higher or lower relative policy return is not necessarily good or bad. Your policy return reflects your investment policy, which should reflect your:

- Long term capital market expectations
- Liabilities
- Appetite for risk

Each of these three factors is different across funds. Therefore, it is not surprising that policy returns often vary widely between funds.

The median 1-year policy return of your peers was 3.2%.



Your 2011 policy mix compares to the Global and peer averages as follows.

Some key differences include:

- There is a higher allocation to fixed income relative to the average peer or Global fund (46% versus 32% and 38% respectively).
- There is a higher allocation to hedge funds relative to the average peer or Global fund (6% versus 2% and 3% respectively).

2011 Policy Mix			
	Your Fund	Peer Avg.	Global Avg.
U.S. Stock	5%	12%	18%
Europe/Asia-Pac Stock	20%	7%	7%
Emerging Market Stock	4%	3%	2%
Global Stock	2%	15%	9%
Other Stock	<u>1%</u>	<u>5%</u>	<u>10%</u>
Total Stock	32%	42%	47%
Fixed Income - Euro	22%	3%	2%
U.S. Bonds	1%	11%	10%
Global Bonds	9%	5%	3%
Inflation Indexed Bonds	1%	4%	2%
Cash	4%	0%	1%
Other Fixed Income	<u>9%</u>	<u>10%</u>	<u>20%</u>
Total Fixed Income	46%	32%	38%
Global TAA	0%	1%	1%
Hedge Funds	6%	2%	3%
Infrastructure	0%	3%	1%
Real Estate incl. REITS	10%	9%	5%
Other Real Assets ¹	0%	2%	1%
Private Equity	5%	9%	4%
Total	100%	100%	100%

Other real assets includes commodities and natural resources.

2. Net Value Added

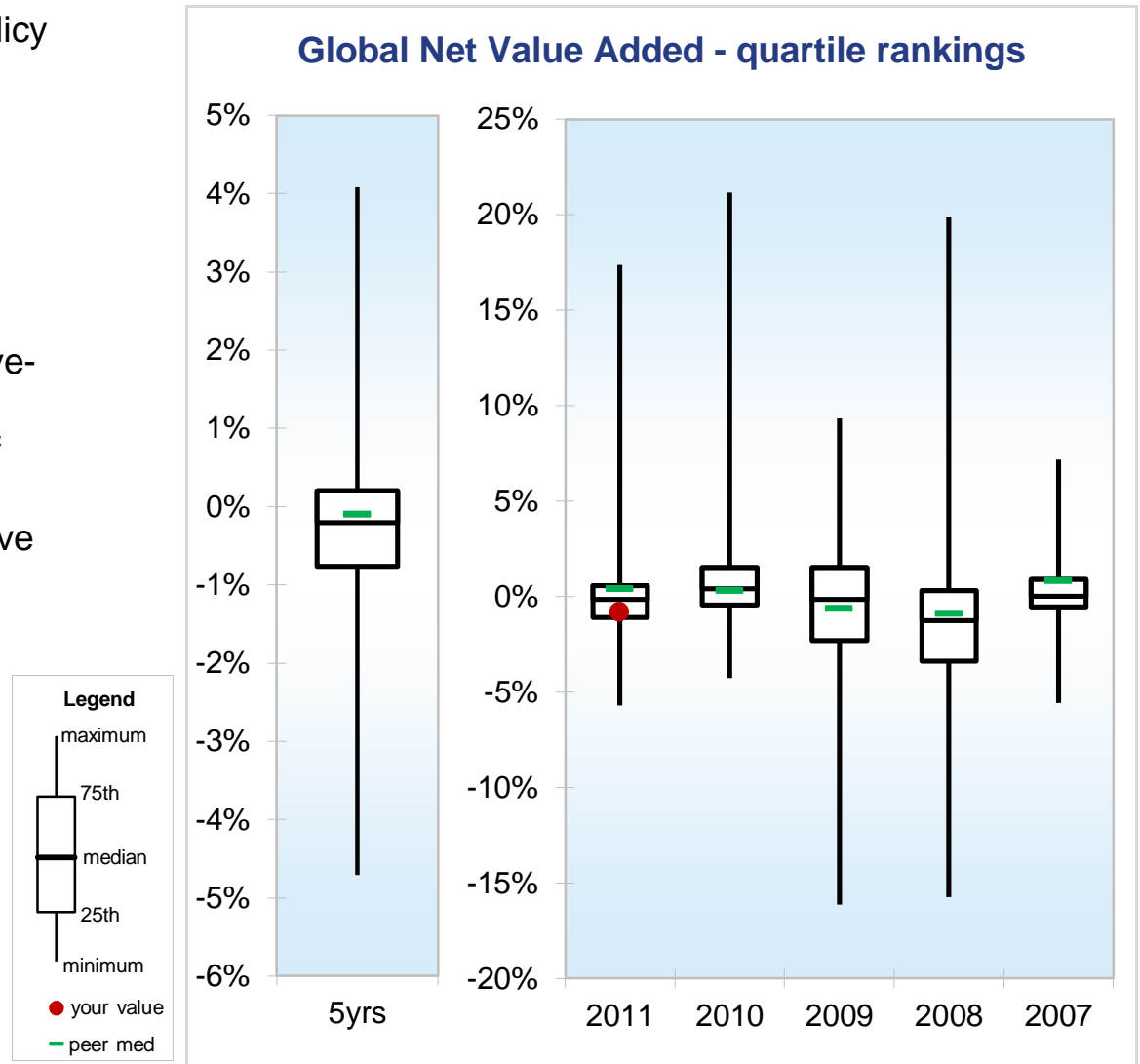
Net value added is the component of total return from active management. Your 2011 net value added was -0.8%.

Net value added equals total return minus policy return minus costs.

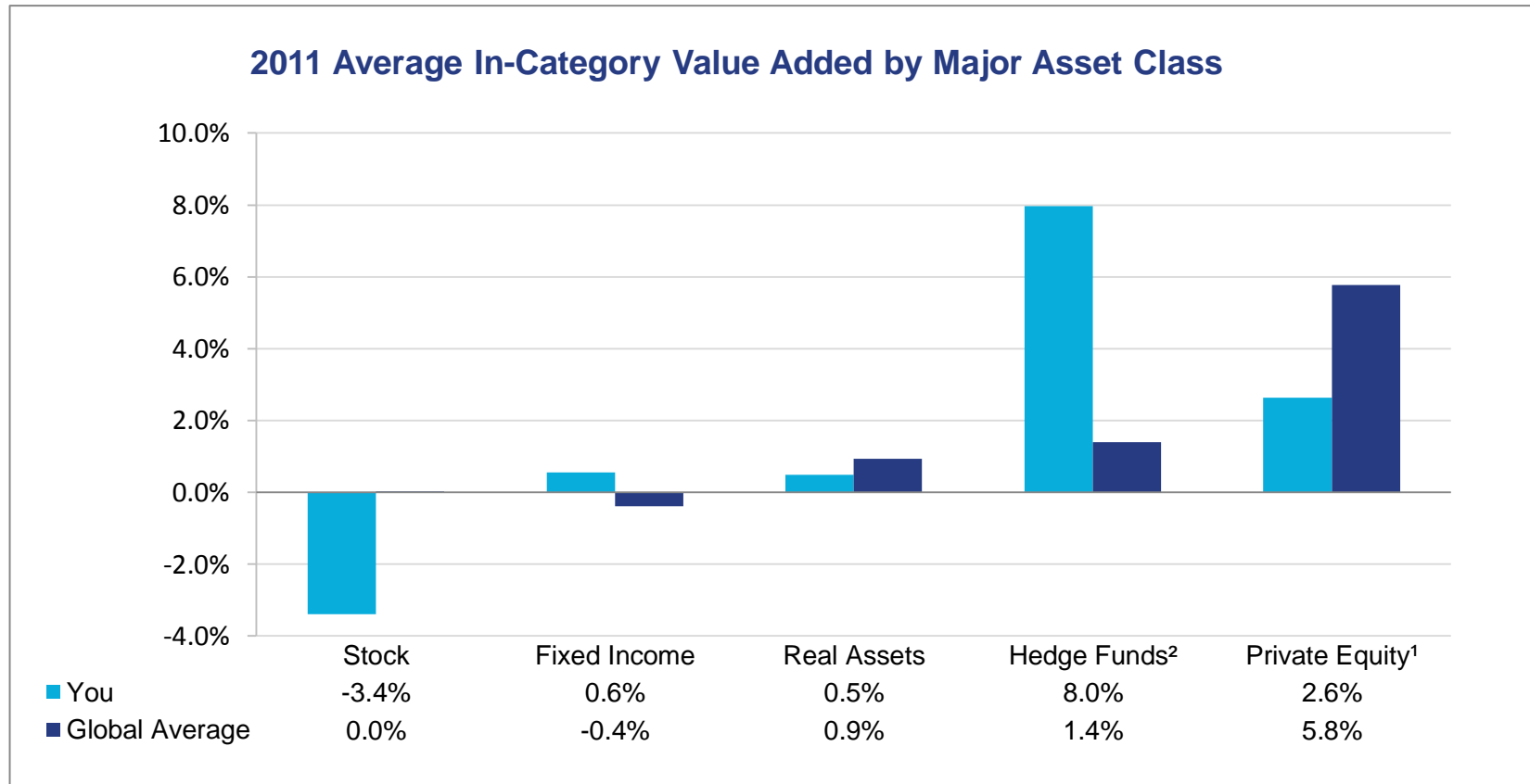
Finnish Pension Fund				
Year	Total Return	Policy Return	Cost	Net Value Added
2011	(2.2)%	(1.9)%	0.5%	(0.8)%

Your value added was impacted by your above-average benchmark return for private equity (your 11.1% versus a 2011 Global average of 4.9%). If you had used the Global average benchmark, your 2011 value added would have been approximately 0.3% higher.

Your 2011 net value added of -0.8% compares to a median of 0.4% for your peers and -0.2% for the Global universe.



You had positive 2011 value added in fixed income, real assets, hedge funds and private equity.



1. Private equity value added is net whereas the other asset classes are gross.

2. Comparisons of value added for private equity and hedge funds must be interpreted with caution because the types of investments and benchmarks can be extremely varied. It may be more useful to compare total returns. Your 1-year return of 13.7% for private equity was above the Global average of 10.7%. Your 1-year return of 3.8% for hedge funds was above the Global average of 2.0%.

3. Costs

Public market investment costs were €279.9 million.

Your Investment Management Costs (€000s)								
	<u>Internal</u>		<u>External Passive</u>		<u>External Active</u>			Total
	Passive	Active	Fees	Monitoring & Other	Base Fees	Perform. Fees ²	Monitoring & Other	
Stock - Europe	66	9,328	990	295	8,849	225	1,016	20,770
Stock - Europe Small Cap			308	13	3,057		63	3,442
Stock - Asia-Pacific		1	312	101	14,148		290	14,851
Stock - U.S.		1,210	1,813	430	6,371		268	10,093
Stock - Emerging		7	4,823	204	29,940		1,404	36,379
Stock - Global		877			2,315		192	3,384
Stock - Other		254						254
Fixed Income - Euro		6,055			833		46	6,934
Fixed Income - Asia-Pacific		110						110
Fixed Income - U.S.		5			2,346			2,351
Fixed Income - Emerging		39			23,354		344	23,737
Fixed Income - Global		2,210	122	20	2,764		820	5,936
Inflation Indexed Bonds		242			169		27	438
Fixed Income - High Yield		49	35		15,881		685	16,650
Fixed Income - Other		4,448			2,361	186	868	7,863
Cash		2,191			125		35	2,351
Global TAA					669		347	1,017
Hedge Funds - Direct					98,411		2,513	100,924
Hedge Funds - Fund of Funds					21,638 ¹		242	21,880
Commodities			250		50			300
REITs		118			68		17	203
Subtotal	66	27,145	8,654	1,064	233,350	411	9,179	279,868

Your total asset management costs in 2011 were €613.6 million or 49.1 basis points.

Your Investment Management Costs (€000s)

	<u>Internal</u>		<u>External Passive</u>		<u>External Active</u>			Total
	Passive	Active	Fees	Monitoring & Other	Base Fees	Perform. Fees ²	Monitoring & Other	
Real Estate		11,927			21,205		3,236	36,368
Real Estate - LPs					16,866		1,129	17,994
Real Estate - Fund of Funds					2,599 ¹		180	2,779
Infrastructure					1,870		43	1,913
Infrastructure - LPs					2,035		141	2,176
Other Real Assets		105			204			309
Diversified Private Equity		413			181,727		3,170	185,310
Diversified Priv. Eq.- Fund of Funds					9,879 ¹		281	10,159
LBO		12			22,640		478	23,129
LBO - Fund of Funds					184 ¹		14	198
Venture Capital					1,675		108	1,782
Venture Capital - Fund of Funds					1,572 ¹		129	1,701
Other Private Equity		275			13,136		42	13,453
Overlay Programs		5,992						5,992
Subtotal		18,723			275,590		8,950	303,263
Total investment management costs							46.6bp	583,131

Your Oversight, Custodial and Other Asset Related Costs³ (€000s)

Oversight of the fund		19,693
Trustee & custodial		6,781
Consulting and performance measurement		1,792
Audit		671
Other		1,558
Total oversight, custodial & other costs		2.4bp 30,495

Total asset management costs		49.1bp 613,627
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Notes

¹ Includes default for fees paid to underlying partnerships in fund of funds. The default for hedge funds was 149bps. The default for real estate was 74bps. The default for diversified private equity was 167bps. The default for LBO was 152bps. The default for venture capital was 209bps.

² Total cost excludes carry/performance fees for real estate, infrastructure, hedge funds, private equity and overlays. Performance fees are included for the public market asset classes.

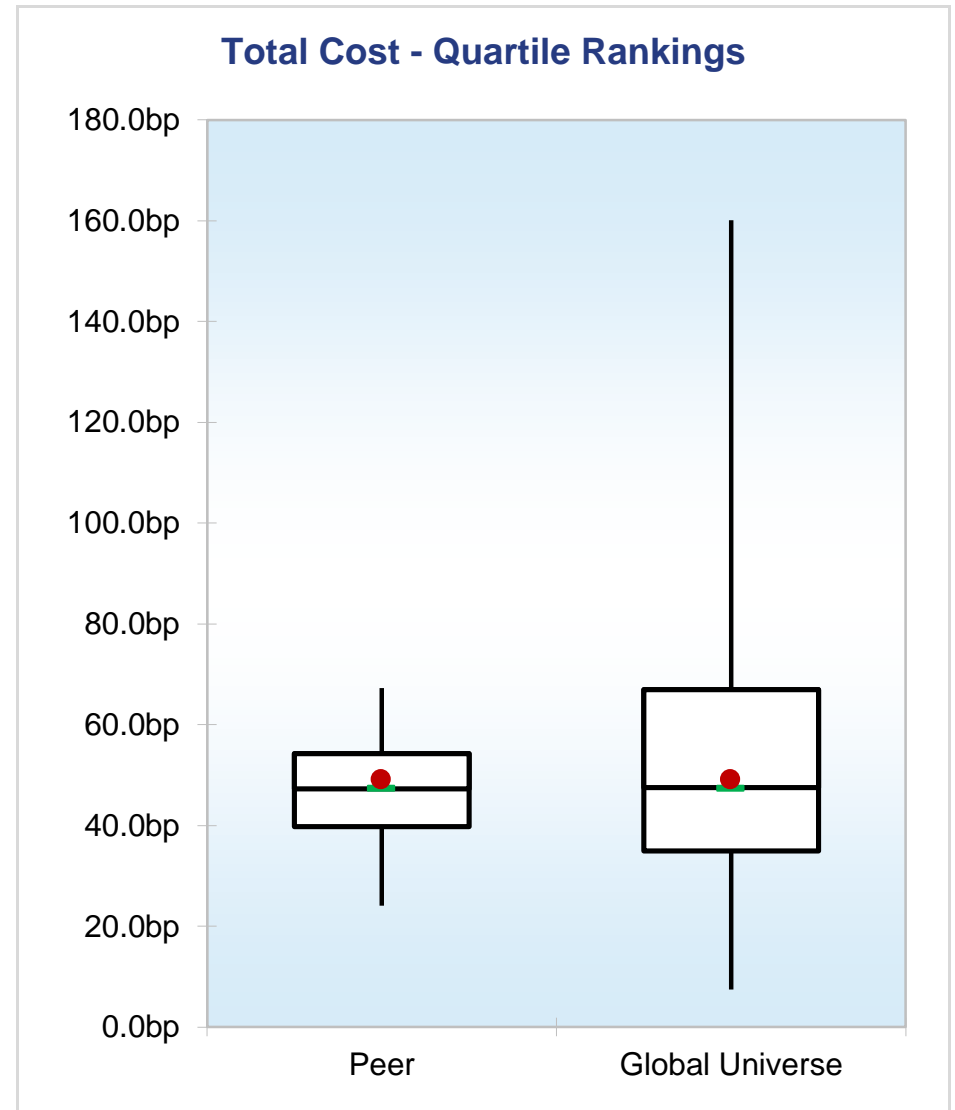
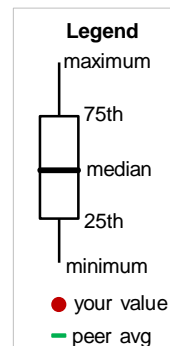
³ Excludes non-investment costs, such as benefit insurance premiums and preparing cheques for retirees.

Your total cost of 49.1 bps was close to the peer average of 47.4 bps.

Differences in total cost are often caused by two factors outside of management's control:

- asset mix and
- fund size.

Therefore, to assess whether your costs are reasonable, CEM calculates a benchmark cost for your fund. Your benchmark cost is an estimate of what your cost would be given your actual asset mix and the median costs that your peers pay for similar services. It represents the cost your peers would incur if they had your actual asset mix.



Benchmark cost analysis suggests that, after adjusting for fund size and asset mix, your fund was normal cost in 2011.

Your total cost of 49.1 bp was close to your benchmark cost of 49.8 bp. Thus, your cost savings was 0.7 bp.

	€000s	basis points
Your actual cost	613,627	49.1 bp
Your benchmark cost	<u>622,326</u>	<u>49.8 bp</u>
Your excess cost	(8,700)	(0.7) bp

Your fund was normal cost because your lower cost implementation style was offset by paying more for some services.

Explanation of Your Cost Status		
	Excess Cost/ (Savings)	
	€000s	bps
1. Lower cost implementation style	(48,783)	(3.9)
2. Paying more or (less) than your peers	40,083	3.2
Total savings in 2011	(8,700)	(0.7)

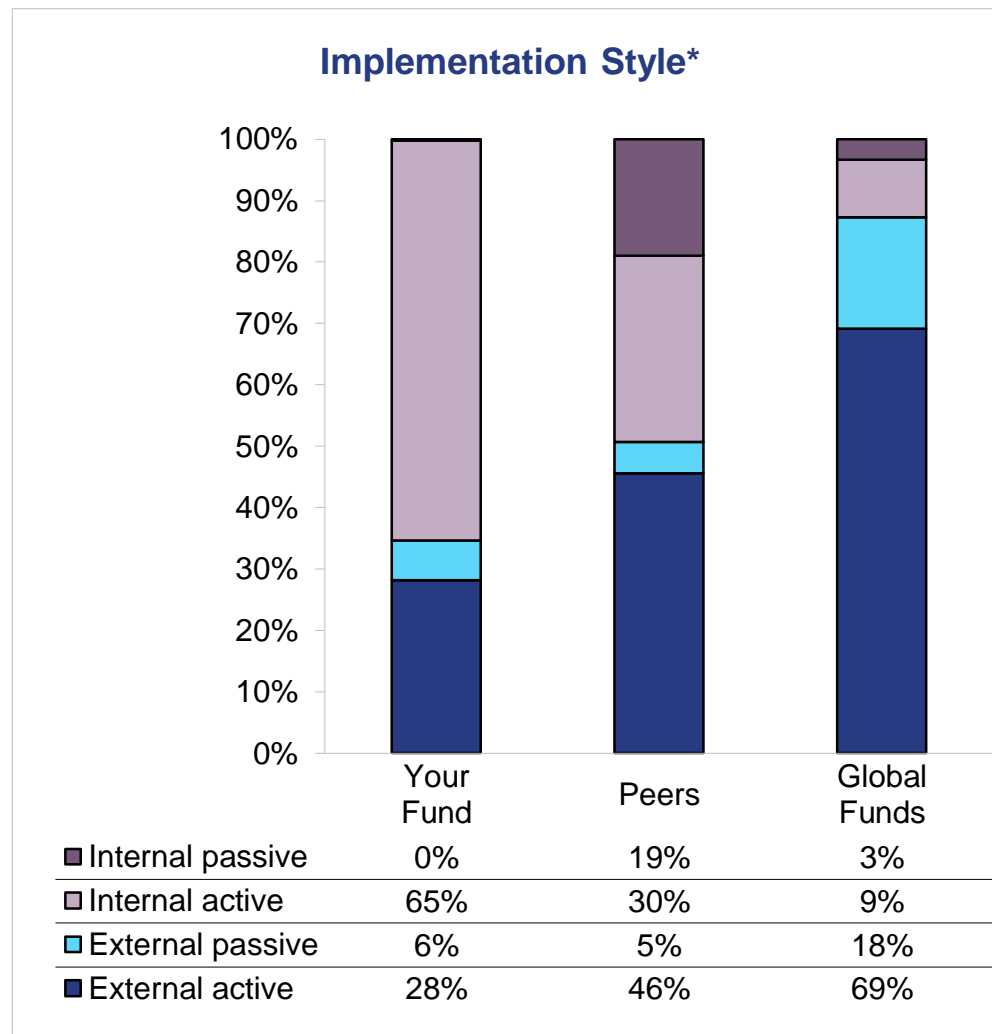
These reasons are examined in detail in the following pages.

Differences in cost performance is often caused by differences in implementation style.

Implementation style is defined as the way in which your fund implements asset allocation. It includes internal, external, active, passive and fund-of-funds styles.

The greatest cost impact is usually caused by differences in the use of:

- External active management because it tends to be much more expensive than internal or passive management. You used less external active management than your peers (your 28% versus 46% for your peers).
- Within external active holdings, fund of funds usage because it is more expensive than direct fund investment. You had less in fund of funds. Your 5% of hedge funds, real estate and private equity in fund of funds compared to 9% for your peers.



* The graph above does not take into consideration the impact of derivatives.

Differences in implementation style saved you 3.9 bp relative to your peers.

Cost Impact of Differences in Implementation Style						
Asset class	Your avg holdings in €mils	% External Active			Cost ^{1,2} premium	Cost/ (Savings) in €000s
		You	Peer average	More/ (less)		
Stock - Europe	23,065	8.7%	14.7%	(6.0%)	45.3 bp	(6,312)
Stock - Europe Small Cap	982	80.7%	80.7%	0.0%	37.0 bp	0
Stock - Asia-Pacific	3,012	84.8%	91.3%	(6.5%)	47.4 bp	(924)
Stock - U.S.	5,982	22.9%	16.2%	6.7%	48.6 bp	1,946
Stock - Emerging	5,662	68.4%	78.4%	(10.0%)	38.9 bp	(2,200)
Stock - Global	1,214	27.8%	54.6%	(26.8%)	30.1 bp	(978)
Stock - Other	447	0.0%	10.7%	(10.7%)	N/A	0
Fixed Income - Euro	25,747	0.9%	3.1%	(2.2%)	27.4 bp	(1,547)
Fixed Income - Asia-Pacific	231	0.0%	6.2%	(6.2%)	N/A	0
Fixed Income - U.S.	1,042	99.6%	18.2%	81.3%	18.3 bp	1,555
Fixed Income - Emerging	3,621	92.3%	97.8%	(5.5%)	38.1 bp	(765)
Fixed Income - Global	7,933	7.8%	59.5%	(51.7%)	20.5 bp	(8,410)
Fixed Income - Inflation Indexed	1,401	5.3%	24.4%	(19.0%)	16.8 bp	(447)
Fixed Income - High Yield	3,333	96.8%	99.5%	(2.7%)	32.3 bp	(290)
Fixed Income - Other	7,446	3.6%	13.8%	(10.1%)	31.2 bp	(2,347)
Global TAA	97	100.0%	68.2%	31.8%	11.5 bp	36
Hedge funds	6,671	100.0%	100.0%	0.0%		0
of which Fund of Funds represent:		16.2%	22.0%	(5.8%)	59.6 bp	(2,324)
Commodities	347	32.9%	50.5%	(17.6%)	-3.3 bp	20
Infrastructure	277	100.0%	33.9%	66.1%	N/A	0
of which Ltd Partnerships represent:		49.7%	20.5%	29.3%	52.2 bp	424
REITs	221	8.1%	77.9%	(69.8%)	32.9 bp	(506)
Real Estate ex-REITs	14,425	24.9%	64.2%	(39.3%)	59.7 bp	(33,841)
of which Ltd Partnerships represent:		47.1%	48.3%	(1.1%)	37.9 bp	(155)
of which Fund of Funds represent:		10.9%	9.9%	1.0%	41.1 bp	70
Other Real Assets	150	6.0%	94.5%	(88.5%)	223.5 bp	(2,965)
Diversified Private Equity	11,623	98.4%	88.1%	10.3%	149.0 bp	17,916
of which Fund of Funds represent:		3.4%	12.6%	(9.2%)	55.9 bp	(5,881)
LBO	1,523	98.6%	99.9%	(1.4%)	147.7 bp	(313)
of which Fund of Funds represent:		0.5%	0.8%	(0.3%)	90.5 bp	(40)
Venture Capital	138	100.0%	100.0%	0.0%		0
of which Fund of Funds represent:		39.3%	13.1%	26.2%	78.5 bp	284
Other private equity	1,321	59.7%	56.5%	3.3%	159.7 bp	689
Total		28.2%	45.6%	(17.4%)		(47,306)
Total external active style impact in bps						(3.8) bp
Impact of differences in the use of lower cost styles ³						0.2 bp
Savings from your lower use of portfolio level overlays						(0.3) bp
Total style impact						(3.9) bp

1. The cost premium is the additional cost of external active management relative to the average of other lower cost implementation styles - internal passive, internal active and external passive.

2. A cost premium of 'N/A' indicates that there was insufficient peer data to calculate the premium. This is most often because your peers do not use the lower cost styles.

3. The 'Impact of differences in the use of lower cost styles' quantifies the net impact of your relative use of internal passive, internal active and external passive management.

The net impact of differences in public market investment management costs added 3.8 bps.

Impact of Paying More/(Less) for External Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Stock - Europe - Passive	1,874	6.9	7.0*	(0.1)	(28)
Stock - Europe - Active	2,001	50.4	50.4	0.0	0
Stock - Europe Small Cap - Passive	189	17.0	Insufficient		
Stock - Europe Small Cap - Active	793	39.4	54.0*	(14.6)	(1,160)
Stock - Asia-Pacific - Passive	456	9.0	9.2*	(0.1)	(5)
Stock - Asia-Pacific - Active	2,555	56.5	56.5*	0.0	0
Stock - U.S. - Passive	3,397	6.6	2.4	4.2	1,443
Stock - U.S. - Active	1,371	48.4	51.2	(2.8)	(378)
Stock - Emerging - Passive	1,763	28.5	16.0*	12.5	2,207
Stock - Emerging - Active	3,873	80.9	58.1	22.8	8,825
Stock - Global - Active	338	74.2	35.6	38.6	1,304
Fixed Income - Euro - Active	237	37.1	29.7	7.4	175
Fixed Income - U.S. - Active	1,038	22.6	21.5	1.1	114
Fixed Income - Emerging - Active	3,341	70.9	44.5	26.4	8,817
Fixed Income - Global - Passive	122	11.7	7.7*	4.0	49
Fixed Income - Global - Active	622	57.6	23.6	34.0	2,116
Fixed Income - Inflation Indexed - Active	75	26.3	18.5	7.8	58
Fixed Income - High Yield - Passive	7	50.0	32.5*	17.5	12
Fixed Income - High Yield - Active	3,226	51.4	38.4	12.9	4,176
Fixed Income - Other - Active	272	125.7	36.9	88.8	2,412
Global TAA - Active	97	104.5	67.2	37.3	363
Hedge Funds - Active	5,591	180.5	148.8	31.7	17,748
Hedge Funds - Fund of Fund	1,080	202.7	208.3	(5.7)	(611)
Commodities - Passive	233	10.7	16.2	(5.5)	(128)
Commodities - Active	114	4.4	12.9	(8.5)	(97)
REITs - Active	18	47.4	37.6	9.8	18
Subtotal				3.8 bp	47,427

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

*Universe median used as peer data was insufficient.

The total net impact of differences in all external investment management costs, including private market asset classes listed here, added 4.9 bps.

Impact of Paying More/(Less) for External Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ Less)	
Infrastructure - Active	139	137.2	120.3	16.9	235
Infrastructure - Limited Partnership	138	157.7	172.5	(14.8)	(204)
Real Estate ex-REITs - Active	1,901	128.6	74.5	54.1	10,286
Real Estate ex-REITs - Limited Partnership	1,511	119.1	108.3	10.8	1,636
Real Estate ex-REITs - Fund of Fund	184	150.9	149.4*	1.5	28
Other Real Assets - Active	9	225.7	230.9	(5.2)	(5)
Diversified Private Equity - Active	11,046	167.4	167.1	0.3	346
Diversified Private Equity - Fund of Fund	391	259.6	223.0	36.6	1,433
LBO - Active	1,493	154.9	152.3	2.6	385
LBO - Fund of Fund	8	260.2	242.8*	17.4	13
Venture Capital - Active	84	212.4	209.0	3.4	29
Venture Capital - Fund of Fund	54	312.7	287.5*	25.3	138
Other Private Equity - Active	789	167.1	164.9	2.2	171
Subtotal					14,491
Total external investment management impact				4.9 bp	61,918

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

'Excluded' indicates that the asset class was excluded from this analysis due to comparability concerns with peers.

*Universe median used as peer data was insufficient.

The net impact of differences in internal investment management costs saved you 2.0 bps.

Impact of Paying More/(Less) for Internal Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Stock - Europe - Passive	313	2.1	Insufficient		
Stock - Europe - Active	18,878	4.9	4.9*	0.0	0
Stock - Asia-Pacific - Active	1	6.8	6.8*	0.0	0
Stock - U.S. - Active	1,214	10.0	8.6	1.4	164
Stock - Emerging - Active	25	2.8	22.1*	(19.4)	(49)
Stock - Global - Active	876	10.0	10.5	(0.5)	(47)
Stock - Other - Active	447	5.7	15.0	(9.3)	(415)
Fixed Income - Euro - Active	25,510	2.4	2.4*	0.0	0
Fixed Income - Asia-Pacific - Active	231	4.7	Insufficient		
Fixed Income - U.S. - Active	4	11.8	3.2	8.7	4
Fixed Income - Emerging - Active	280	1.4	6.4*	(5.0)	(141)
Fixed Income - Global - Active	7,189	3.1	3.1	0.0	0
Fixed Income - Inflation Indexed - Active	1,326	1.8	1.9	(0.1)	(9)
Fixed Income - High Yield - Active	100	4.9	4.9	0.0	0
Fixed Income - Other - Active	7,174	6.2	7.6	(1.4)	(969)
REITs - Active	203	5.8	4.8	1.0	21
Real Estate ex-REITs - Active	10,830	11.0	33.1	(22.1)	(23,905)
Other Real Assets - Active	141	7.5	Insufficient		
Diversified Private Equity - Active	185	22.3	25.1	(2.9)	(53)
LBO - Active	22	5.3	Insufficient		
Other Private Equity - Active	532	5.2	5.2	0.0	0
	<i>Notional</i>				
Derivatives/Overlays - Currency - Hedge	5,183	0.0	0.7	(0.7)	(362)
Derivatives/Overlays - Currency - Discretionary	402	15.9	8.5	7.4	297
Derivatives/Overlays - Duration	295	17.0	1.0	16.0	471
Derivatives/Overlays - Other	1,238	11.5	7.3	4.1	511
Total internal investment management impact				(2.0) bp	(24,481)

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

'Excluded' indicates that the asset class was excluded from this analysis due to comparability concerns with peers.

*Universe median used as peer data was insufficient.

The net impact of differences in your oversight, custodial & other costs added 0.2 bps to your cost.

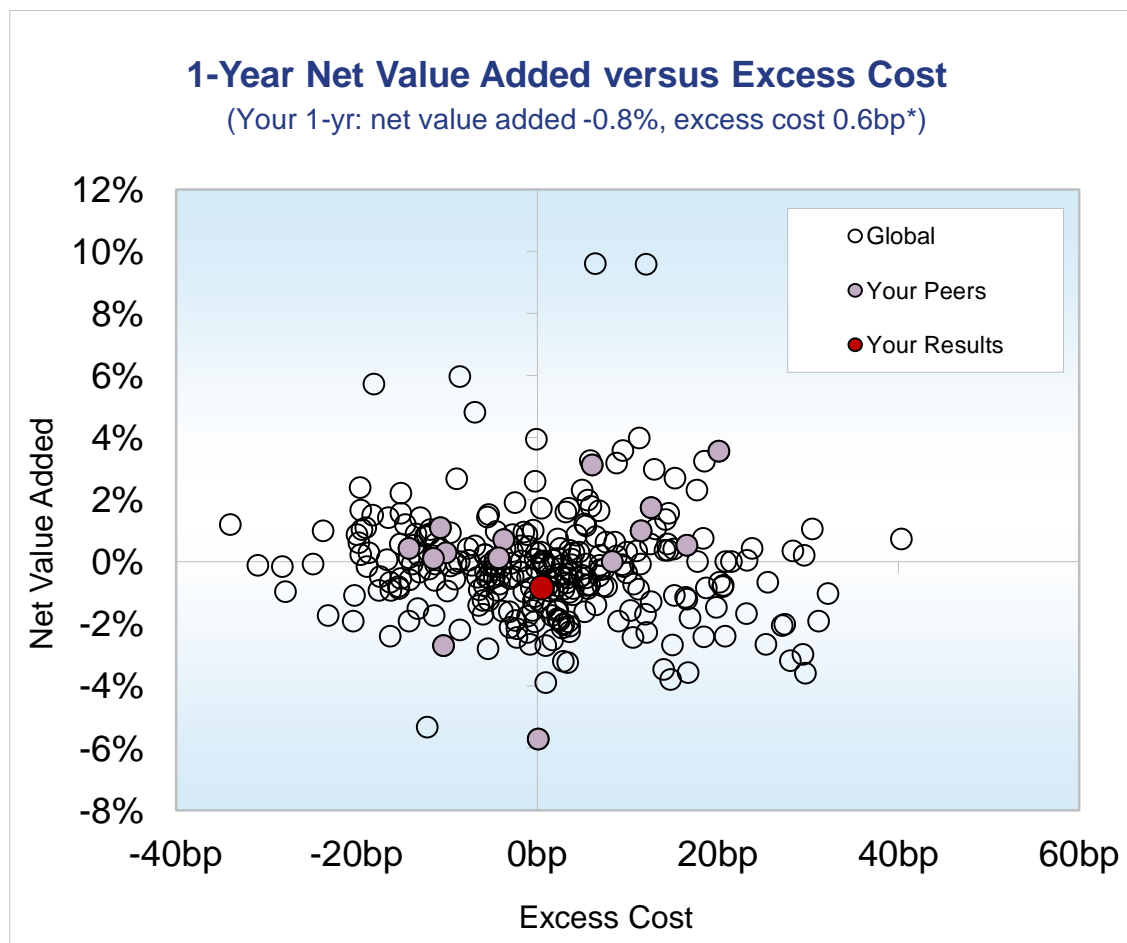
Impact of Differences in Oversight, Custodial & Other Costs					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Oversight	125,088	1.6	1.4	0.2	2,370
Custodial / trustee	125,088	0.5	0.5	0.1	995
Consulting / performance measurement	125,088	0.1	0.2	(0.0)	(447)
Audit	125,088	0.1	0.1	(0.0)	(272)
Other	125,088	0.1	0.1	0.0	0
Total impact				0.2 bp	2,646

In summary, your fund was normal cost because your lower cost implementation style was offset by paying more for some services.

Explanation of Your Cost Status		
	Excess Cost/ (Savings)	
	€000s	bps
1. Lower cost implementation style		
• Lower use of fund of funds	(7,891)	(0.6)
• Less external active management and more lower cost passive and internal management	(39,415)	(3.2)
• Lower use of overlays	(3,492)	(0.3)
• Other style differences	<u>2,015</u>	<u>0.2</u>
	(48,783)	(3.9)
2. Paying more or (less) than your peers		
• External investment management costs	61,918	4.9
• Internal investment management costs	(24,481)	(2.0)
• Oversight, custodial & other costs	<u>2,646</u>	<u>0.2</u>
	40,083	3.2
Total savings	(8,700)	(0.7)

4. Cost Effectiveness

Your fund had 2011 net value added of -0.8% and excess cost of 0.6 bps.

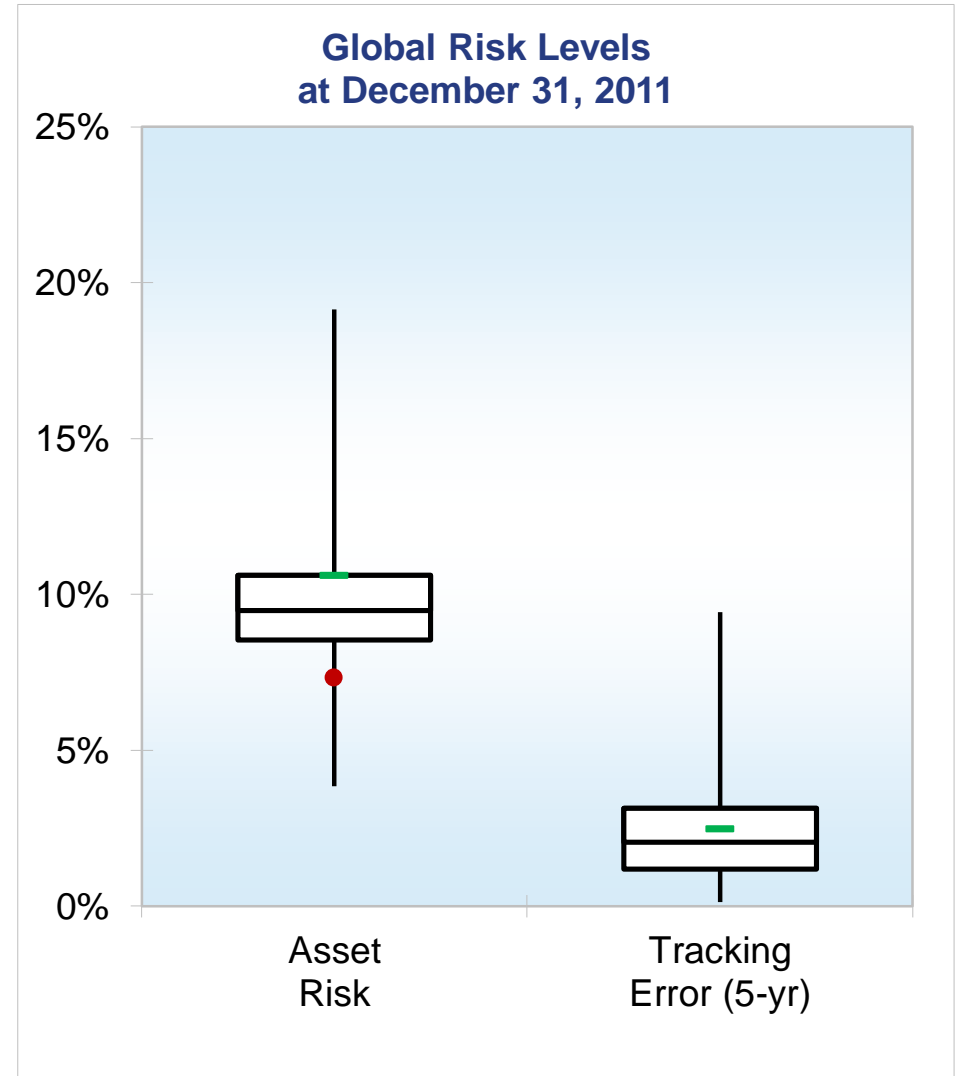
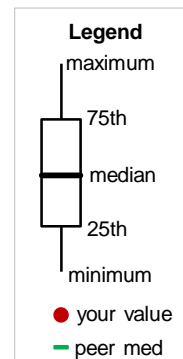


5. Risk

Comparison of risk levels

Your asset risk of 7.3% was below the Global median of 9.5%. Asset risk is the expected standard deviation of your policy return. It is based on the historical variance of, and covariance between, the asset classes in your policy mix.

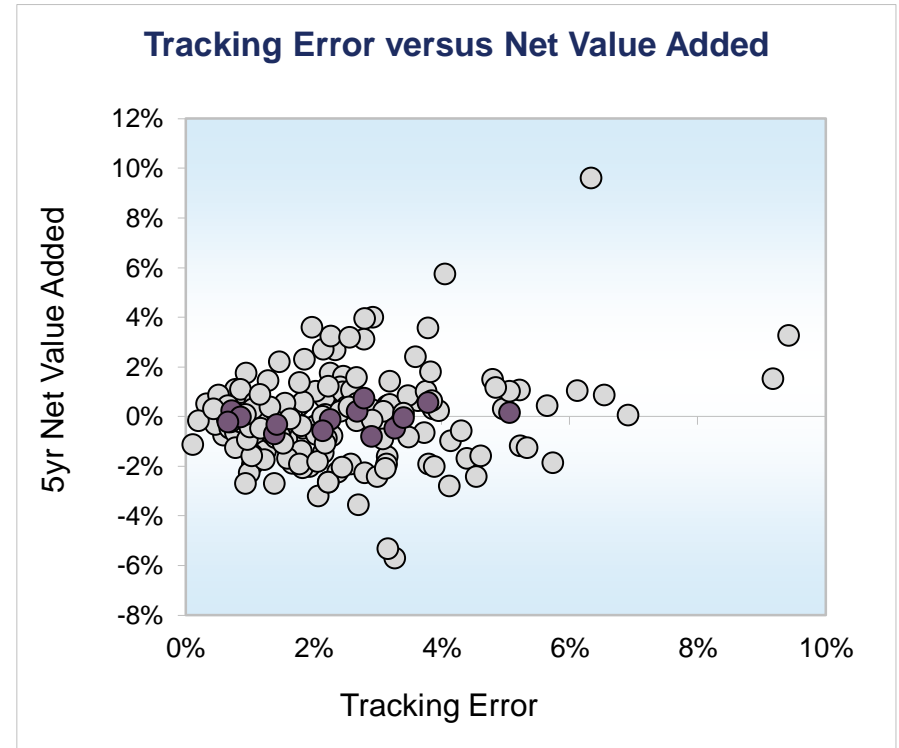
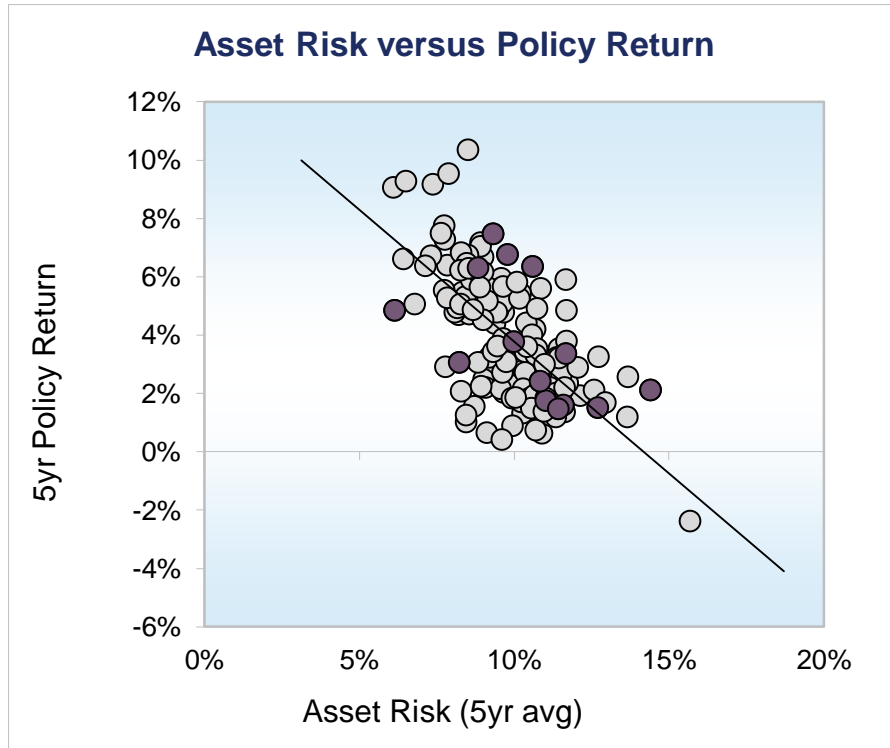
Your fund's tracking error was unavailable because CEM does not have 5-years of data for your fund.



During the 5-year period ending 2011, Global funds were not rewarded for taking risk. More risk resulted in worse performance.

Higher asset risk was associated with lower policy returns.

There was no meaningful relationship between tracking error and net value added.



○ Global ● Peers ● You — Linear (Global)

In summary:

1. Policy Return

Your 2011 policy return was -1.9%. This compares to the Global median of 2.6% and the peer median of 1.9%.

2. Value Added

Your 2011 net value added was -0.8%. This compares to the Global median of -0.2% and the peer median of 0.4%.

3. Costs

Your actual cost of 49.1 bps was close to your benchmark cost of 49.8 bps. This suggests that your fund was normal cost. Your fund was normal cost because your lower cost implementation style was offset by paying more for some services.

4. Cost Effectiveness

For 2011 you had negative net value added and normal cost on the cost effectiveness chart.

5. Risk

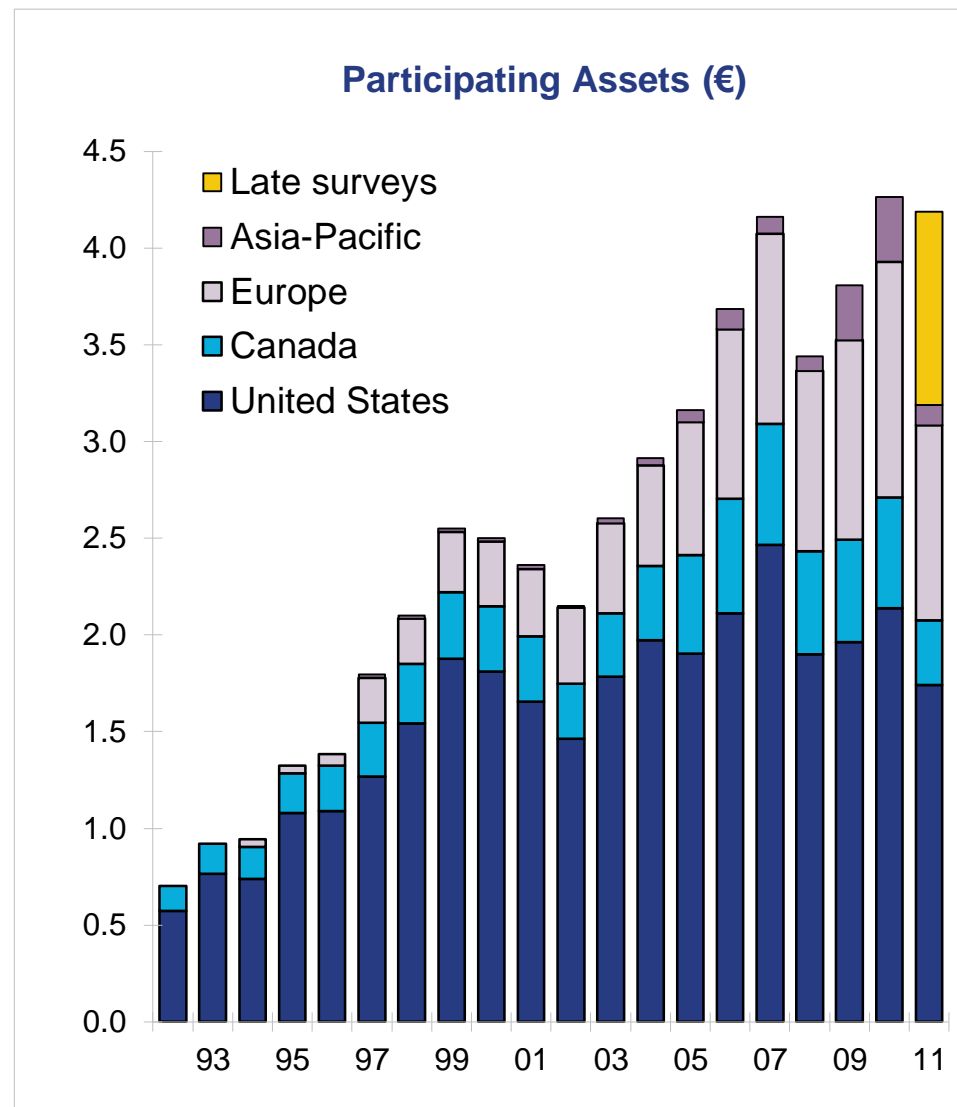
Your asset risk of 7.3% was below the Global median of 9.5%.

Global peers

This benchmarking report compares your cost and return performance to CEM's extensive pension database.

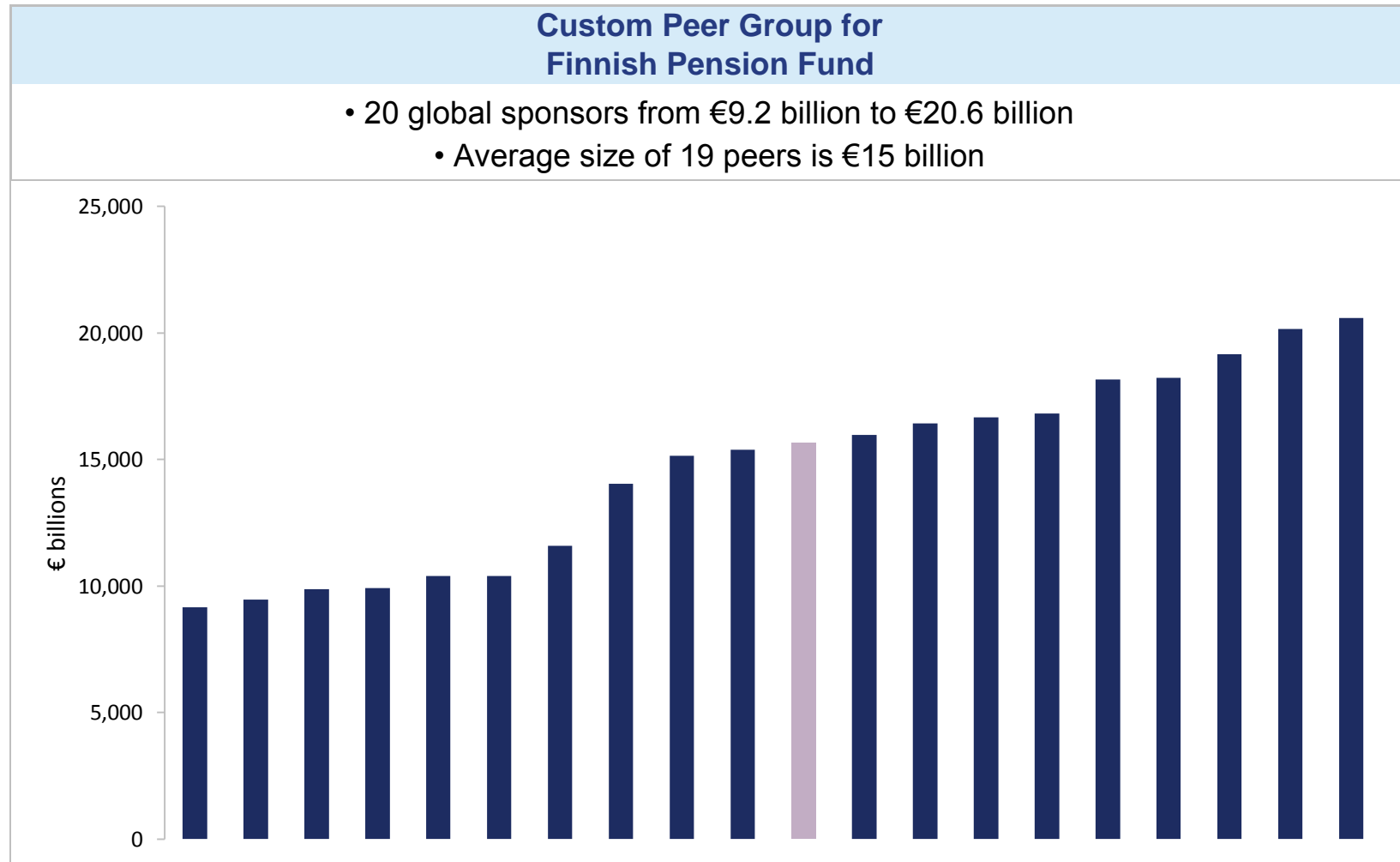
- 174 U.S. funds participate with assets totaling €1.7 trillion.
- 78 Canadian funds participate with assets totaling €335 billion.
- 32 European funds participate with aggregate assets of €1,008 billion. Included are funds from the Netherlands, Norway, Sweden, Finland, Denmark and the U.K.
- 7 Asia-Pacific funds participate with aggregate assets of €105 billion. Included are funds from the Australia, New Zealand and South Korea.

The most meaningful comparisons for your returns and value added are to the Global universe.



DRAFT - Finnish Pension Fund

The most valuable comparisons for cost performance are to your custom peer group because size impacts costs.



All information in this report is confidential and may not be disclosed to third parties without the express written mutual consent of CEM Benchmarking Inc and FCP.

What gets measured gets managed, so it is critical that you measure and compare the right things:

1. Policy Return

How did the impact of your policy mix decision compare to other funds?

2. Net Value Added

Are your implementation decisions (i.e., the amount of active versus passive management) adding value?

3. Costs

Are your costs reasonable? Costs matter and can be managed.

4. Cost Effectiveness

Net implementation value added versus excess cost.
Does paying more get you more?

5. Risk

How much risk was taken to obtain your value added?
What is the risk of your policy mix?

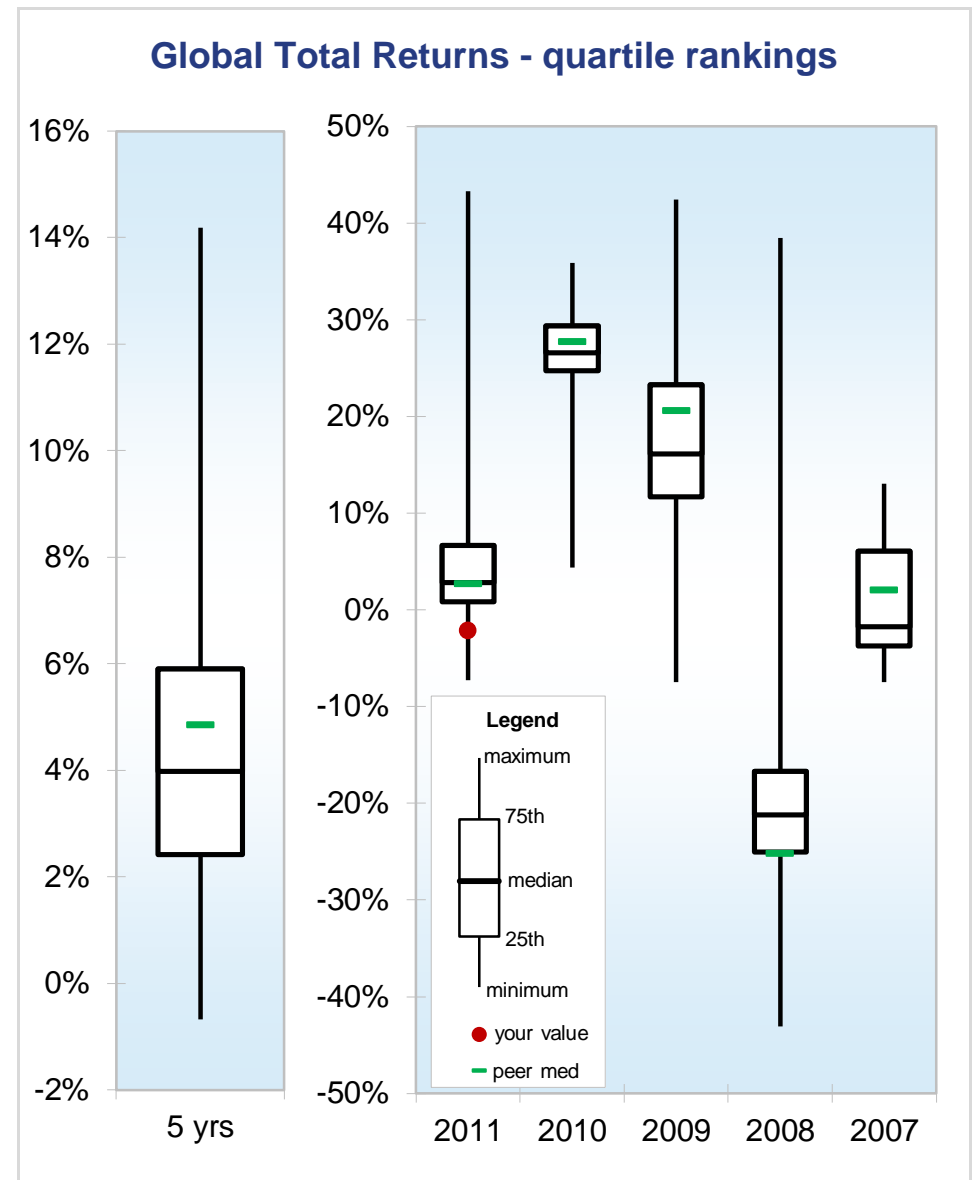
Your 2011 total return of -2.2% was below the Global median of 2.8%.

Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return, cost and value added.

	Your 2011
Total Fund Return	-2.2%
- Policy Return	-1.9%
- Cost	0.5%
= Net Value Added	-0.8%

This approach enables you to understand the contribution from both policy mix decisions (which tend to be the board's responsibility) and implementation decisions (which tend to be management's responsibility).

Actual and policy returns have been converted to your currency using unhedged currency returns.



1. Policy Return

Your 2011 policy return of -1.9% was below the Global median of 2.6%

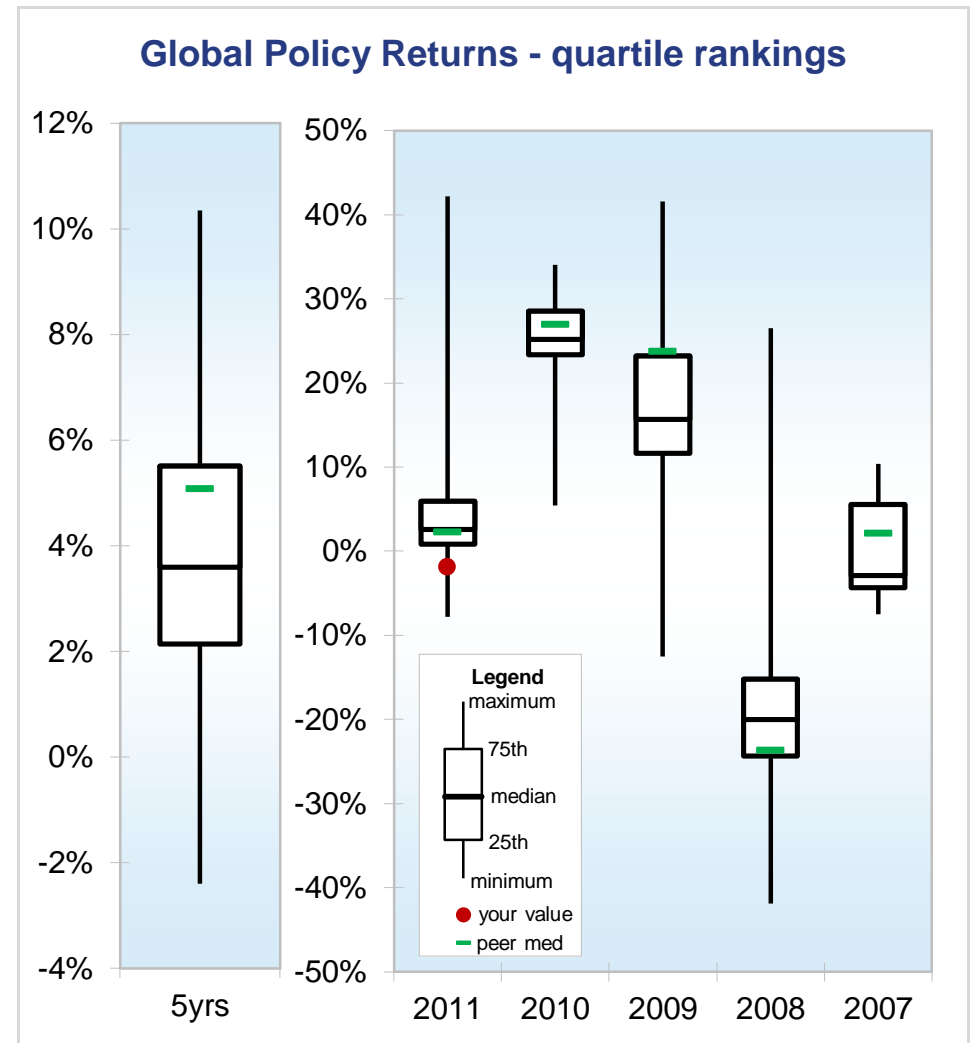
Your policy return is the return you could have earned passively by indexing your investments according to your policy mix.

Having a higher or lower relative policy return is not necessarily good or bad. Your policy return reflects your investment policy, which should reflect your:

- Long term capital market expectations
- Liabilities
- Appetite for risk

Each of these three factors is different across funds. Therefore, it is not surprising that policy returns often vary widely between funds.

The median 1-year policy return of your peers was 5.1%.



Your 2011 policy mix compares to the Global and peer averages as follows.

Some key differences include:

- There is a lower allocation to stocks relative to the average peer or Global fund (32% versus 42% and 47% respectively).
- There is a higher allocation to hedge funds relative to the average peer or Global fund (6% versus 3%).

2011 Policy Mix			
	Your Fund	Peer Avg.	Global Avg.
U.S. Stock	5%	8%	18%
Europe/Asia-Pac Stock	20%	9%	7%
Emerging Market Stock	4%	4%	2%
Global Stock	2%	10%	9%
Other Stock	<u>1%</u>	<u>10%</u>	<u>10%</u>
Total Stock	32%	42%	47%
Fixed Income - Euro	22%	7%	2%
U.S. Bonds	1%	2%	10%
Global Bonds	9%	11%	3%
Inflation Indexed Bonds	1%	4%	2%
Cash	4%	3%	1%
Other Fixed Income	<u>9%</u>	<u>16%</u>	<u>20%</u>
Total Fixed Income	46%	41%	38%
Global TAA	0%	0%	1%
Hedge Funds	6%	3%	3%
Infrastructure	0%	2%	1%
Real Estate incl. REITS	10%	7%	5%
Other Real Assets ¹	0%	1%	1%
Private Equity	5%	3%	4%
Total	100%	100%	100%

Other real assets includes commodities and natural resources.

2. Net Value Added

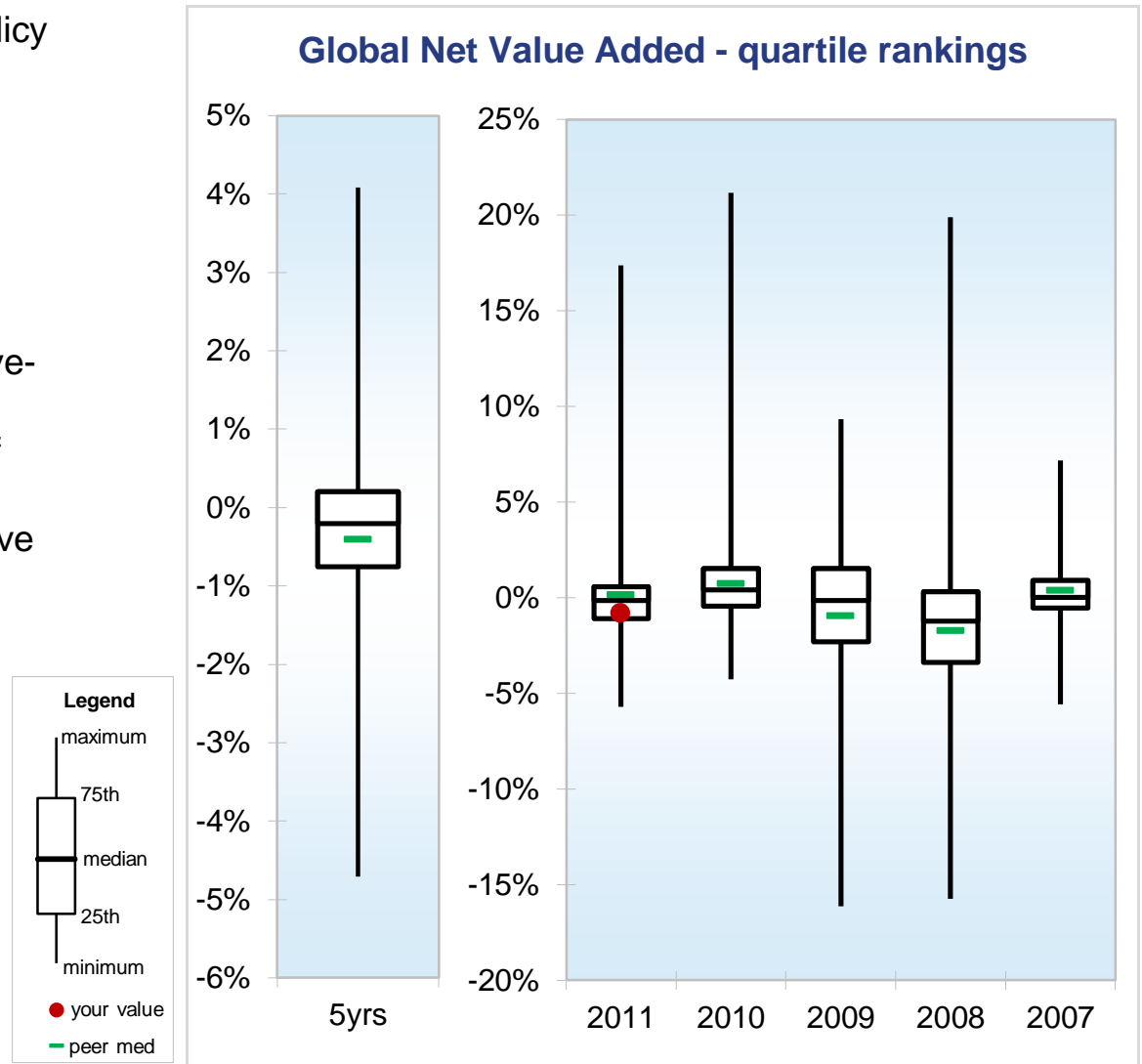
Net value added is the component of total return from active management. Your 2011 net value added was -0.8%.

Net value added equals total return minus policy return minus costs.

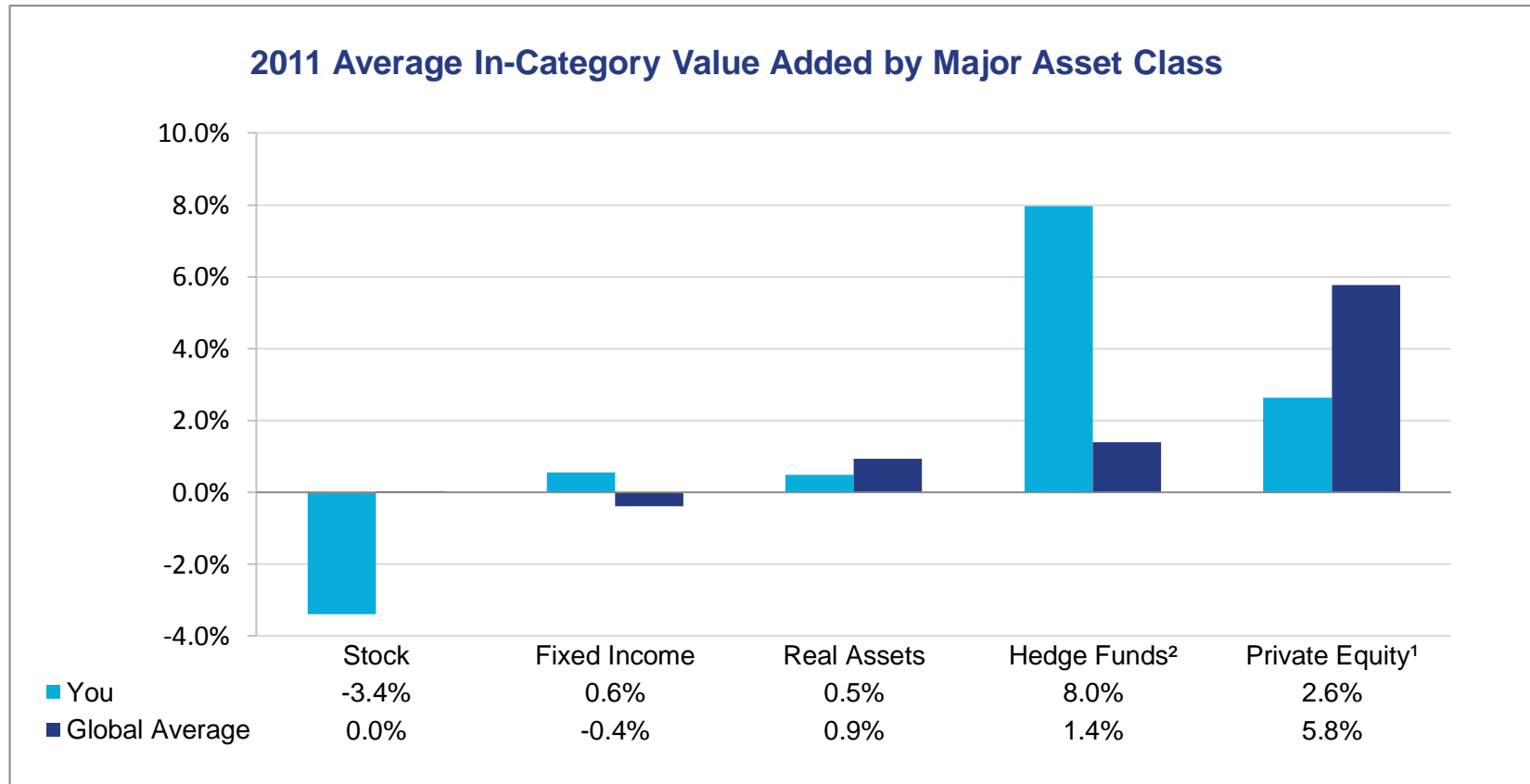
Finnish Pension Fund				
Year	Total Return	Policy Return	Cost	Net Value Added
2011	(2.2)%	(1.9)%	0.5%	(0.8)%

Your value added was impacted by your above-average benchmark return for private equity (your 11.1% versus a 2011 Global average of 4.9%). If you had used the Global average benchmark, your 2011 value added would have been approximately 0.3% higher.

Your 2011 net value added of -0.8% compares to a median of 0.2% for your peers and -0.2% for the Global universe.



You had positive 2011 value added in fixed income, real assets, hedge funds and private equity.



1. Private equity value added is net whereas the other asset classes are gross.

2. Comparisons of value added for private equity and hedge funds must be interpreted with caution because the types of investments and benchmarks can be extremely varied. It may be more useful to compare total returns. Your 1-year return of 13.7% for private equity was above the Global average of 10.7%. Your 1-year return of 3.8% for hedge funds was above the Global average of 2.0%.

3. Costs

Public market investment costs were €35.3 million.

Your Investment Management Costs (€000s)								
	<u>Internal</u>		<u>External Passive</u>		<u>External Active</u>			Total
	Passive	Active	Fees	Monitoring & Other	Base Fees	Perform. Fees ²	Monitoring & Other	
Stock - Europe	8	1,166	124	37	1,106	28	127	2,596
Stock - Europe Small Cap			39	2	382		8	430
Stock - Asia-Pacific		0	39	13	1,769		36	1,856
Stock - U.S.		151	227	54	796		34	1,262
Stock - Emerging		1	603	26	3,742		176	4,547
Stock - Global		110			289		24	423
Stock - Other		32						32
Fixed Income - Euro		757			104		6	867
Fixed Income - Asia-Pacific		14						14
Fixed Income - U.S.		1			293			294
Fixed Income - Emerging		5			2,919		43	2,967
Fixed Income - Global		276	15	3	346		102	742
Inflation Indexed Bonds		30			21		3	55
Fixed Income - High Yield		6	4		1,985		86	2,081
Fixed Income - Other		556			295	23	109	983
Cash		274			16		4	294
Global TAA					84		43	127
Hedge Funds - Direct					12,301		314	12,615
Hedge Funds - Fund of Funds					2,972 ¹		30	3,003
Commodities			31		6			38
REITs		15			8		2	25
Subtotal	8	3,393	1,082	133	29,436	51	1,147	35,251

Your total asset management costs in 2011 were €76.9 million or 49.2 basis points.

Your Investment Management Costs (€000s)

	<u>Internal</u>		<u>External Passive</u>		<u>External Active</u>			Total
	Passive	Active	Fees	Monitoring & Other	Base Fees	Perform. Fees ²	Monitoring & Other	
Real Estate		1,491			2,651		405	4,546
Real Estate - LPs					2,108		141	2,249
Real Estate - Fund of Funds					289 ¹		22	311
Infrastructure					234		5	239
Infrastructure - LPs					254		18	272
Other Real Assets		13			26			39
Diversified Private Equity		52			22,716		396	23,164
Diversified Priv. Eq.- Fund of Funds					1,225 ¹		35	1,260
LBO		1			2,830		60	2,891
LBO - Fund of Funds					24 ¹		2	26
Venture Capital					209		13	223
Venture Capital - Fund of Funds					194 ¹		16	210
Other Private Equity		34			1,642		5	1,682
Overlay Programs		749						749
Subtotal		2,340			34,401		1,119	37,860
Total investment management costs							46.8bp	73,111

Notes

¹ Includes default for fees paid to underlying partnerships in fund of funds. The default for hedge funds was 169bps. The default for real estate was 59bps. The default for diversified private equity was 165bps. The default for LBO was 163bps. The default for venture capital was 205bps.

² Total cost excludes carry/performance fees for real estate, infrastructure, hedge funds, private equity and overlays. Performance fees are included for the public market asset classes.

³ Excludes non-investment costs, such as benefit insurance premiums and preparing cheques for retirees.

Your Oversight, Custodial and Other Asset Related Costs³ (€000s)

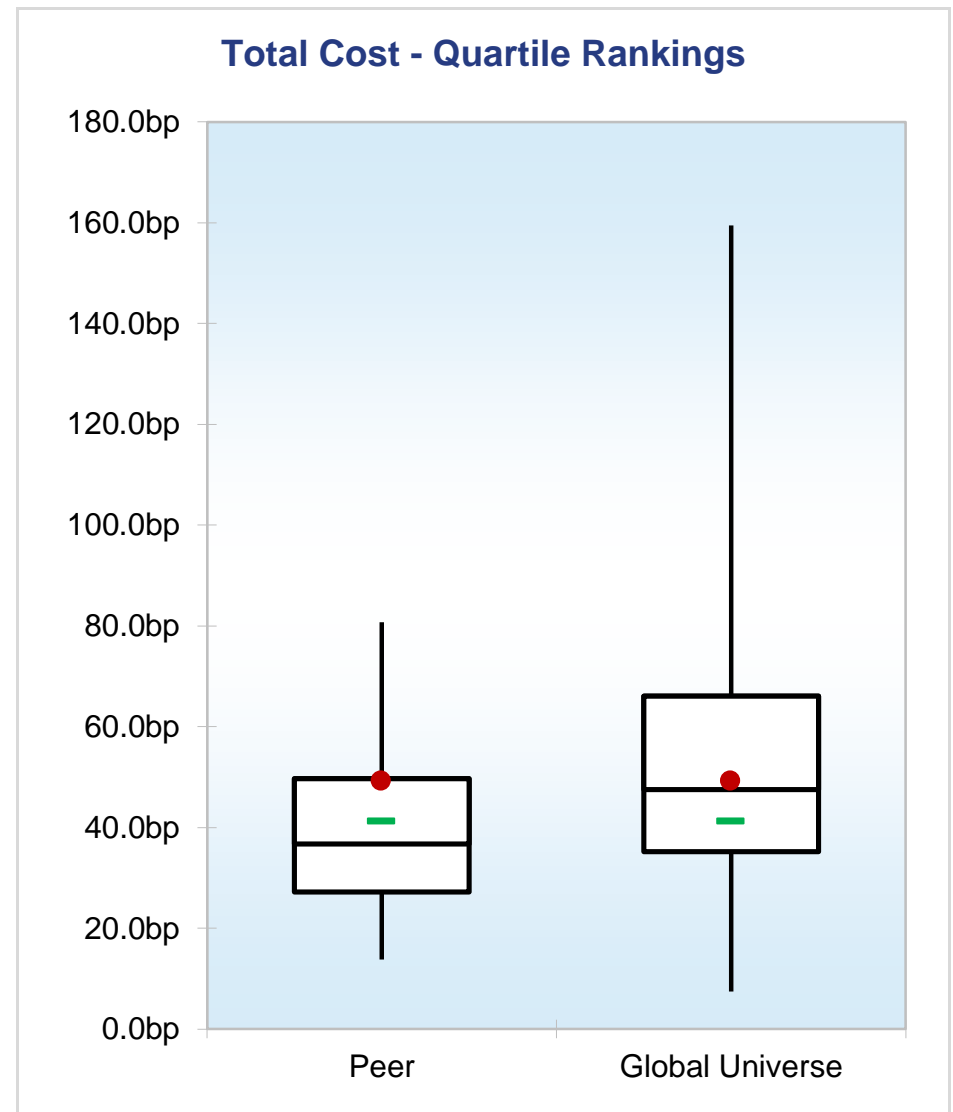
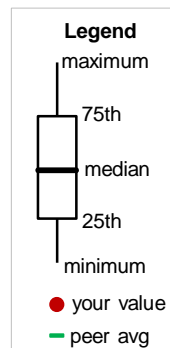
Oversight of the fund		2,462
Trustee & custodial		848
Consulting and performance measurement		224
Audit		84
Other		195
Total oversight, custodial & other costs		2.4bp 3,812
Total asset management costs		49.2bp 76,923

Your total cost of 49.2 bps was above the peer average of 41.3 bps.

Differences in total cost are often caused by two factors outside of management's control:

- asset mix and
- fund size.

Therefore, to assess whether your costs are reasonable, CEM calculates a benchmark cost for your fund. Your benchmark cost is an estimate of what your cost would be given your actual asset mix and the median costs that your peers pay for similar services. It represents the cost your peers would incur if they had your actual asset mix.



Benchmark cost analysis suggests that, after adjusting for fund size and asset mix, your fund was slightly low cost in 2011.

Your total cost of 49.2 bp was slightly below your benchmark cost of 54.4 bp. Thus, your cost savings was 5.2 bp.

	€000s	basis points
Your actual cost	76,923	49.2 bp
Your benchmark cost	<u>85,006</u>	<u>54.4 bp</u>
Your excess cost	(8,083)	(5.2) bp

Your fund was slightly low cost primarily because you had a lower cost implementation style.

Reasons for Your Low Cost Status		
	Excess Cost/ (Savings)	
	€000s	bps
1. Lower cost implementation style	(11,748)	(7.5)
2. Paying more or (less) than your peers	3,665	2.3
Total savings in 2011	(8,083)	(5.2)

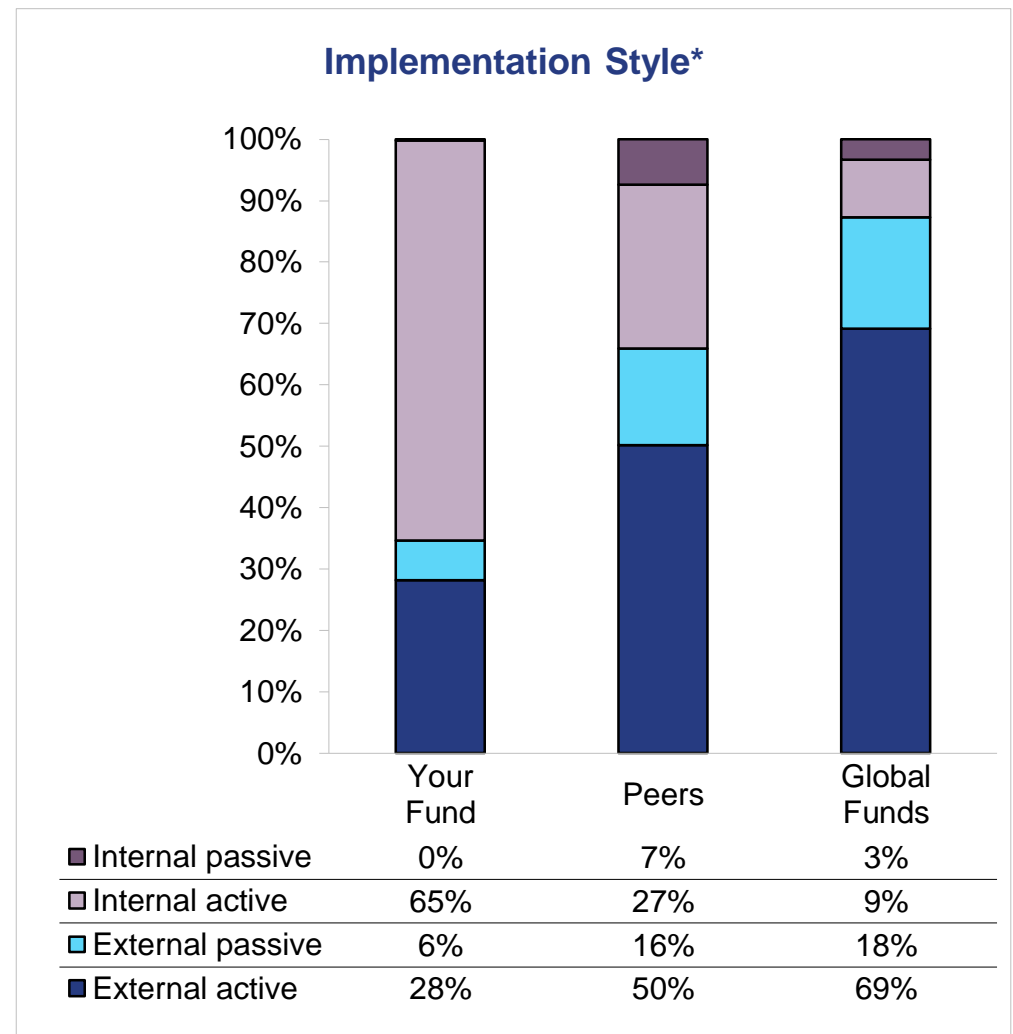
These reasons are examined in detail in the following pages.

Differences in cost performance is often caused by differences in implementation style.

Implementation style is defined as the way in which your fund implements asset allocation. It includes internal, external, active, passive and fund-of-funds styles.

The greatest cost impact is usually caused by differences in the use of:

- External active management because it tends to be much more expensive than internal or passive management. You used less external active management than your peers (your 28% versus 50% for your peers).
- Within external active holdings, fund of funds usage because it is more expensive than direct fund investment. You had less in fund of funds. Your 5% of hedge funds, real estate and private equity in fund of funds compared to 9% for your peers.



* The graph above does not take into consideration the impact of derivatives.

Differences in implementation style saved you 7.5 bp relative to your peers.

Cost Impact of Differences in Implementation Style						
Asset class	Your avg holdings in €mils	% External Active			Cost ^{1,2} premium	Cost/ (Savings) in €000s
		You	Peer average	More/ (less)		
Stock - Europe	2,883	8.7%	26.6%	(17.9%)	42.5 bp	(2,200)
Stock - Europe Small Cap	123	80.7%	56.5%	24.2%	35.4 bp	105
Stock - Asia-Pacific	377	84.8%	70.7%	14.1%	43.9 bp	233
Stock - U.S.	748	22.9%	60.8%	(37.9%)	35.7 bp	(1,012)
Stock - Emerging	708	68.4%	67.5%	0.9%	66.1 bp	44
Stock - Global	152	27.8%	43.2%	(15.4%)	42.8 bp	(100)
Stock - Other	56	0.0%	45.2%	(45.2%)	25.4 bp	(64)
Fixed Income - Euro	3,218	0.9%	0.1%	0.8%	15.5 bp	39
Fixed Income - Asia-Pacific	29	0.0%	0.0%	0.0%		0
Fixed Income - U.S.	130	99.6%	65.5%	34.1%	9.5 bp	42
Fixed Income - Emerging	453	92.3%	81.3%	11.0%	38.4 bp	191
Fixed Income - Global	992	7.8%	20.7%	(12.8%)	22.2 bp	(283)
Fixed Income - Inflation Indexed	175	5.3%	3.4%	2.0%	12.4 bp	4
Fixed Income - High Yield	417	96.8%	89.8%	7.0%	28.1 bp	82
Fixed Income - Other	931	3.6%	49.9%	(46.2%)	29.5 bp	(1,268)
Global TAA	12	100.0%	Excluded			0
Hedge funds	834	100.0%	100.0%	0.0%		0
of which Fund of Funds represent:		16.2%	13.9%	2.3%	93.2 bp	180
Commodities	43	32.9%	4.0%	28.9%	41.0 bp	51
Infrastructure	35	100.0%	98.2%	1.8%	N/A	0
of which Ltd Partnerships represent:		49.7%	6.2%	43.5%	-0.3 bp	(0)
REITs	28	8.1%	46.4%	(38.2%)	40.6 bp	(43)
Real Estate ex-REITs	1,803	24.9%	74.9%	(50.0%)	54.7 bp	(4,926)
of which Ltd Partnerships represent:		47.1%	25.0%	22.1%	46.0 bp	458
of which Fund of Funds represent:		10.9%	17.0%	(6.1%)	14.8 bp	(19)
Other Real Assets	19	6.0%	73.7%	(67.7%)	43.5 bp	(55)
Diversified Private Equity	1,453	98.4%	97.2%	1.2%	167.4 bp	300
of which Fund of Funds represent:		3.4%	16.0%	(12.6%)	83.7 bp	(1,508)
LBO	190	98.6%	99.9%	(1.4%)	165.8 bp	(44)
of which Fund of Funds represent:		0.5%	9.2%	(8.7%)	90.5 bp	(148)
Venture Capital	17	100.0%	100.0%	0.0%		0
of which Fund of Funds represent:		39.3%	36.3%	3.0%	89.0 bp	5
Other private equity	165	59.7%	95.0%	(35.3%)	161.9 bp	(944)
Total		28.2%	50.2%	(22.0%)		(10,880)
Total external active style impact in bps						(7.0) bp
Impact of differences in the use of lower cost styles ³						0.2 bp
Savings from your lower use of portfolio level overlays						(0.8) bp
Total style impact						(7.5) bp

1. The cost premium is the additional cost of external active management relative to the average of other lower cost implementation styles - internal passive, internal active and external passive.

2. A cost premium of 'N/A' indicates that there was insufficient peer data to calculate the premium. This is most often because your peers do not use the lower cost styles.

3. The 'Impact of differences in the use of lower cost styles' quantifies the net impact of your relative use of internal passive, internal active and external passive management.

The net impact of differences in public market investment management costs added 1.8 bps.

Impact of Paying More/(Less) for External Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Stock - Europe - Passive	234	6.9	7.0*	(0.1)	(3)
Stock - Europe - Active	250	50.4	47.4	3.1	77
Stock - Europe Small Cap - Passive	24	17.0	Insufficient		
Stock - Europe Small Cap - Active	99	39.4	52.4	(13.0)	(129)
Stock - Asia-Pacific - Passive	57	9.0	9.2*	(0.1)	(1)
Stock - Asia-Pacific - Active	319	56.5	52.3	4.3	136
Stock - U.S. - Passive	425	6.6	5.0	1.6	70
Stock - U.S. - Active	171	48.4	39.9	8.5	146
Stock - Emerging - Passive	220	28.5	32.3	(3.8)	(84)
Stock - Emerging - Active	484	80.9	80.9	0.0	0
Stock - Global - Active	42	74.2	49.6	24.6	104
Fixed Income - Euro - Active	30	37.1	17.8*	19.3	57
Fixed Income - U.S. - Active	130	22.6	13.9	8.7	113
Fixed Income - Emerging - Active	418	70.9	44.8	26.1	1,090
Fixed Income - Global - Passive	15	11.7	6.6	5.1	8
Fixed Income - Global - Active	78	57.6	28.4	29.2	227
Fixed Income - Inflation Indexed - Active	9	26.3	14.4	11.9	11
Fixed Income - High Yield - Passive	1	50.0	32.5*	17.5	2
Fixed Income - High Yield - Active	403	51.4	38.6	12.7	514
Fixed Income - Other - Active	34	125.7	34.6	91.2	310
Global TAA - Active	12	104.5	Insufficient		
Hedge Funds - Active	699	180.5	168.6	11.9	832
Hedge Funds - Fund of Fund	135	222.5	261.8	(39.3)	(530)
Commodities - Passive	29	10.7	25.6*	(14.8)	(43)
Commodities - Active	14	4.4	66.6*	(62.2)	(89)
REITs - Active	2	47.4	47.4	0.0	0
Subtotal				1.8 bp	2,818

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

*Universe median used as peer data was insufficient.

The total net impact of differences in all external investment management costs, including private market asset classes listed here, added 3.3 bps.

Impact of Paying More/(Less) for External Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Infrastructure - Active	17	137.2	115.6	21.6	38
Infrastructure - Limited Partnership	17	157.7	115.3	42.4	73
Real Estate ex-REITs - Active	238	128.6	58.8	69.7	1,657
Real Estate ex-REITs - Limited Partnership	189	119.1	102.4	16.8	317
Real Estate ex-REITs - Fund of Fund	23	135.3	117.2	18.1	42
Other Real Assets - Active	1	225.7	51.0	174.7	20
Diversified Private Equity - Active	1,381	167.4	165.0	2.4	329
Diversified Private Equity - Fund of Fund	49	257.5	248.7	8.8	43
LBO - Active	187	154.9	162.7	(7.8)	(146)
LBO - Fund of Fund	1	270.6	253.2*	17.4	2
Venture Capital - Active	10	212.4	204.8	7.7	8
Venture Capital - Fund of Fund	7	308.5	293.8	14.7	10
Other Private Equity - Active	99	167.1	167.1	0.0	0
Subtotal					2,392
Total external investment management impact				3.3 bp	5,210

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

*Universe median used as peer data was insufficient.

The net impact of differences in internal investment management costs saved you 0.2 bps.

Impact of Paying More/(Less) for Internal Investment Management					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Stock - Europe - Passive	39	2.1	Insufficient		
Stock - Europe - Active	2,360	4.9	4.9*	0.0	0
Stock - Asia-Pacific - Active	0	6.8	6.8	0.0	0
Stock - U.S. - Active	152	10.0	7.7	2.2	34
Stock - Emerging - Active	3	2.8	2.8	0.0	0
Stock - Global - Active	110	10.0	7.9	2.1	23
Stock - Other - Active	56	5.7	7.6	(2.0)	(11)
Fixed Income - Euro - Active	3,189	2.4	2.3	0.0	15
Fixed Income - Asia-Pacific - Active	29	4.7	Insufficient		
Fixed Income - U.S. - Active	1	11.8	4.0*	7.8	0
Fixed Income - Emerging - Active	35	1.4	6.4*	(5.0)	(18)
Fixed Income - Global - Active	899	3.1	4.1	(1.0)	(93)
Fixed Income - Inflation Indexed - Active	166	1.8	2.0	(0.2)	(4)
Fixed Income - High Yield - Active	13	4.9	10.5*	(5.6)	(7)
Fixed Income - Other - Active	897	6.2	4.3	1.9	166
REITs - Active	25	5.8	6.9*	(1.0)	(3)
Real Estate ex-REITs - Active	1,354	11.0	15.7	(4.7)	(632)
Other Real Assets - Active	18	7.5	Insufficient		
Diversified Private Equity - Active	23	22.3	11.1	11.2	26
LBO - Active	3	5.3	Insufficient		
Other Private Equity - Active	67	5.2	5.2	0.0	0
	<i>Notional</i>				
Derivatives/Overlays - Currency - Hedge	648	0.0	N/A	N/A	N/A
Derivatives/Overlays - Currency - Discretionary	50	15.9	8.5	7.4	37
Derivatives/Overlays - Duration	37	17.0	1.0	16.0	59
Derivatives/Overlays - Other	155	11.5	7.3	4.1	64
Total internal investment management impact				(0.2) bp	(342)

'Insufficient' indicates insufficient peer and universe data to do meaningful comparisons.

'Excluded' indicates that the asset class was excluded from this analysis due to comparability concerns with peers.

*Universe median used as peer data was insufficient.

The net impact of differences in your oversight, custodial & other costs saved you 0.8 bps.

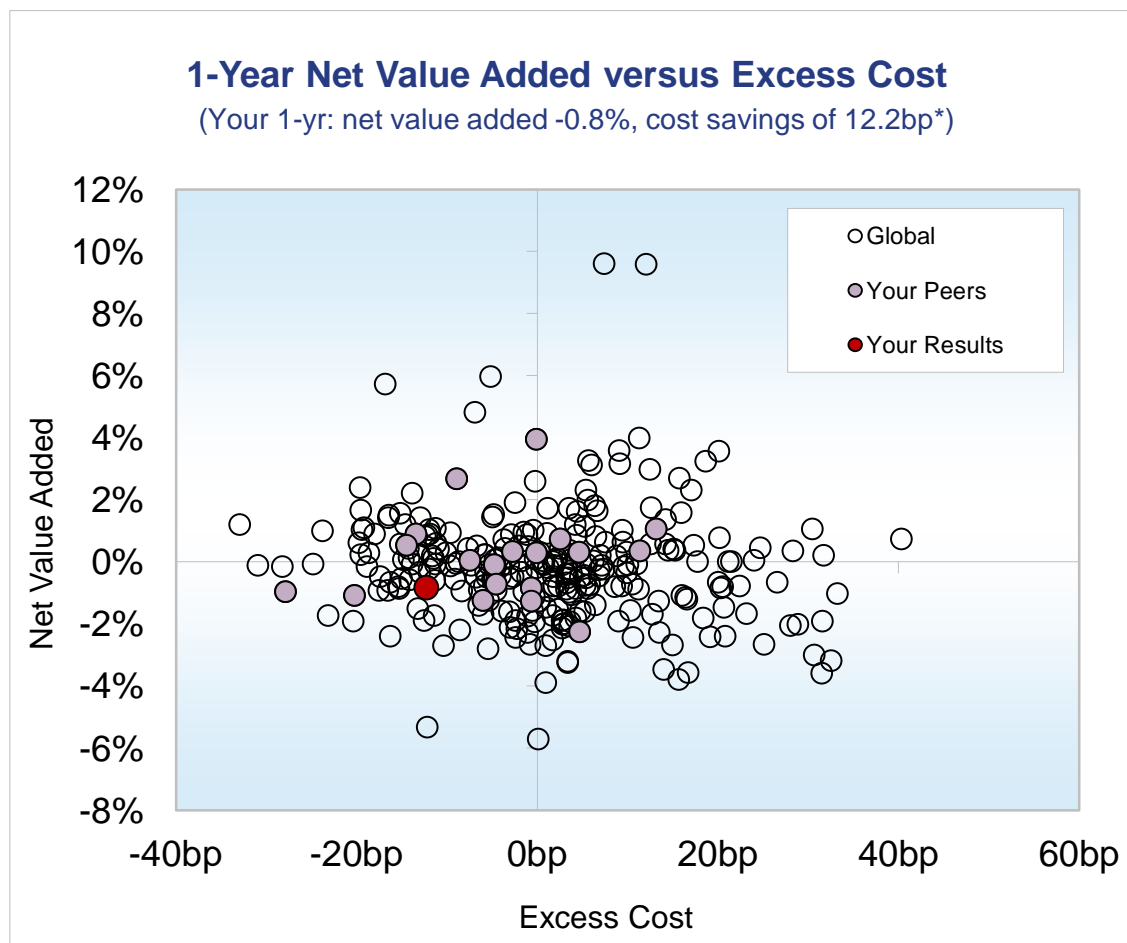
Impact of Differences in Oversight, Custodial & Other Costs					
	Your avg holdings in €mils	Cost in bps			Cost/ (Savings) in €000s
		Your Fund	Peer median	More/ (Less)	
Oversight	15,636	1.6	1.4	0.1	212
Custodial / trustee	15,636	0.5	0.8	(0.3)	(413)
Consulting / performance measurement	15,636	0.1	0.6	(0.5)	(767)
Audit	15,636	0.1	0.1	(0.0)	(52)
Other	15,636	0.1	0.2	(0.1)	(183)
Total impact				(0.8) bp	(1,203)

In summary, your fund was slightly low cost primarily because you had a lower cost implementation style.

Reasons for Your Low Cost Status		
	Excess Cost/ (Savings)	
	€000s	bps
1. Lower cost implementation style		
• Lower use of fund of funds	(1,491)	(1.0)
• Less external active management and more lower cost passive and internal management	(9,389)	(6.0)
• Lower use of overlays	(1,186)	(0.8)
• Other style differences	<u>319</u>	<u>0.2</u>
	(11,748)	(7.5)
2. Paying more or (less) than your peers		
• External investment management costs	5,210	3.3
• Internal investment management costs	(342)	(0.2)
• Oversight, custodial & other costs	<u>(1,203)</u>	<u>(0.8)</u>
	3,665	2.3
Total savings	(8,083)	(5.2)

4. Cost Effectiveness

Your 2011 performance placed in the negative value added, low cost quadrant.

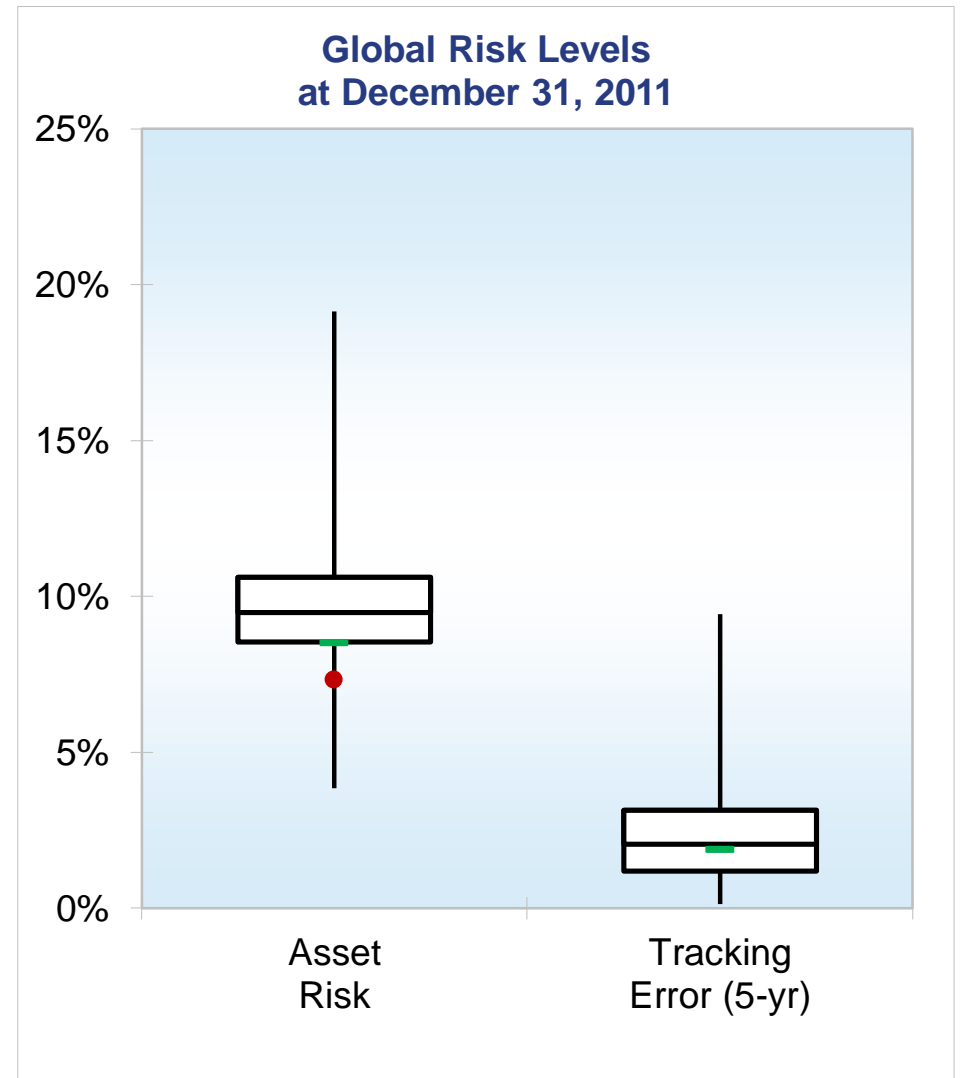
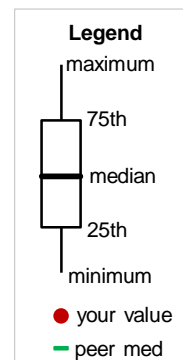


5. Risk

Comparison of risk levels

Your asset risk of 7.3% was below the Global median of 9.5%. Asset risk is the expected standard deviation of your policy return. It is based on the historical variance of, and covariance between, the asset classes in your policy mix.

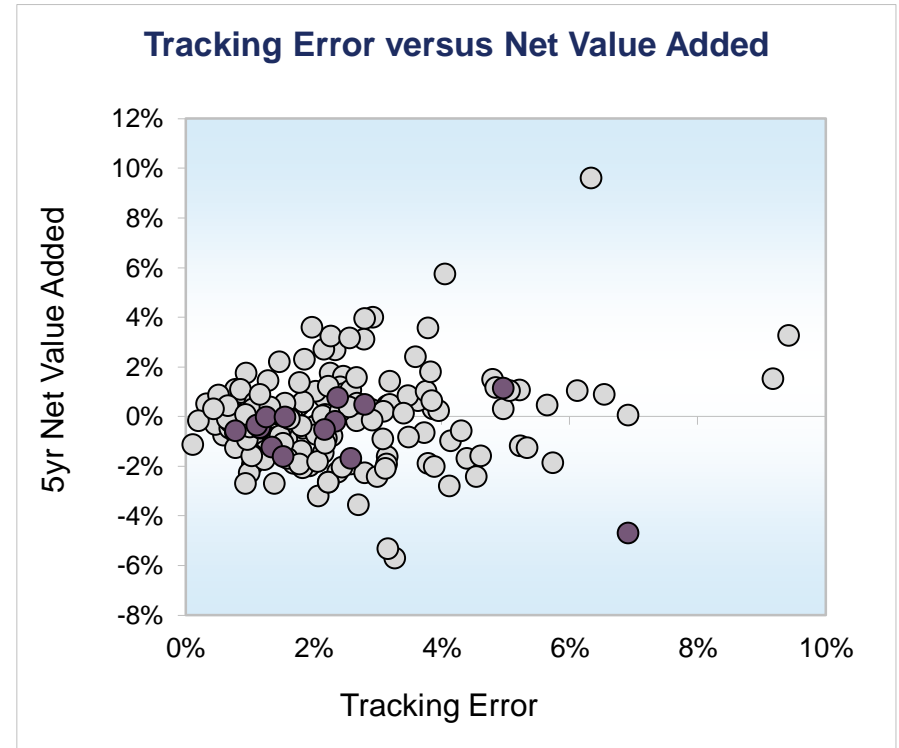
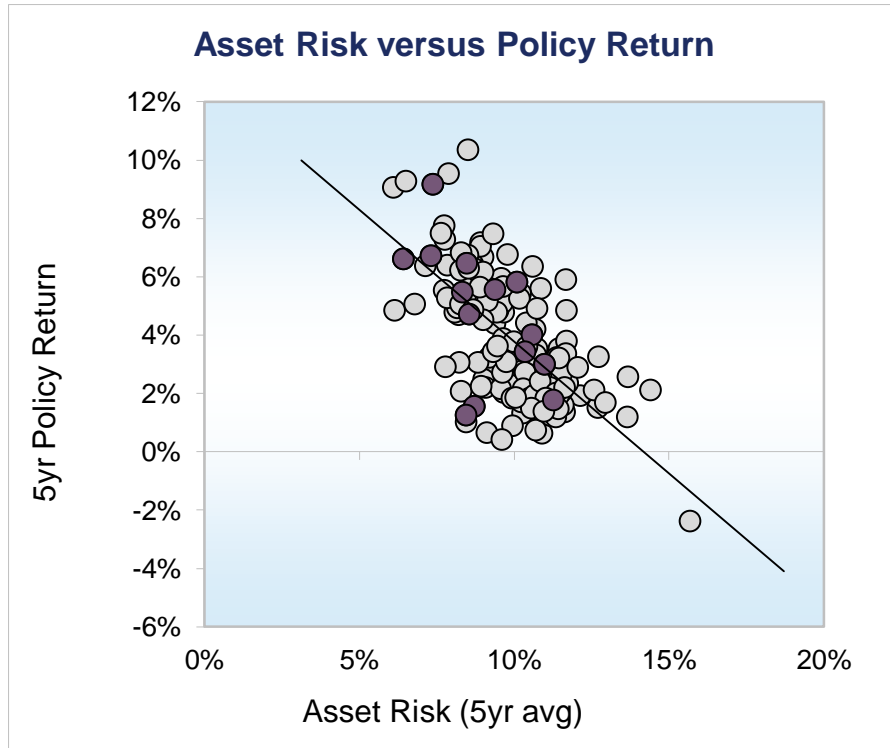
Your fund's tracking error was unavailable because CEM does not have 5-years of data for your fund.



During the 5-year period ending 2011, Global funds were not rewarded for taking risk. More risk resulted in worse performance.

Higher asset risk was associated with lower policy returns.

There was no meaningful relationship between tracking error and net value added.



○ Global ● Peers ● You — Linear (Global)

In summary:

1. Policy Return

Your 2011 policy return was -1.9%. This compares to the Global median of 2.6% and the peer median of 2.2%.

2. Value Added

Your 2011 net value added was -0.8%. This compares to the Global median of -0.2% and the peer median of 0.2%.

3. Costs

Your actual cost of 49.2 bps was below your benchmark cost of 54.4 bps. This suggests that your fund was slightly low cost. Your fund was slightly low cost primarily because you had a lower cost implementation style.

4. Cost Effectiveness

For 2011 you were in the negative net value added, low cost quadrant of the cost effectiveness chart.

5. Risk

Your asset risk of 7.3% was below the Global median of 9.5%.