

**Investment
Cost Effectiveness Analysis**
(for the 5 years ending December 31, 2012)

**New Zealand
Superannuation Fund**

Prepared September 12, 2013 by:



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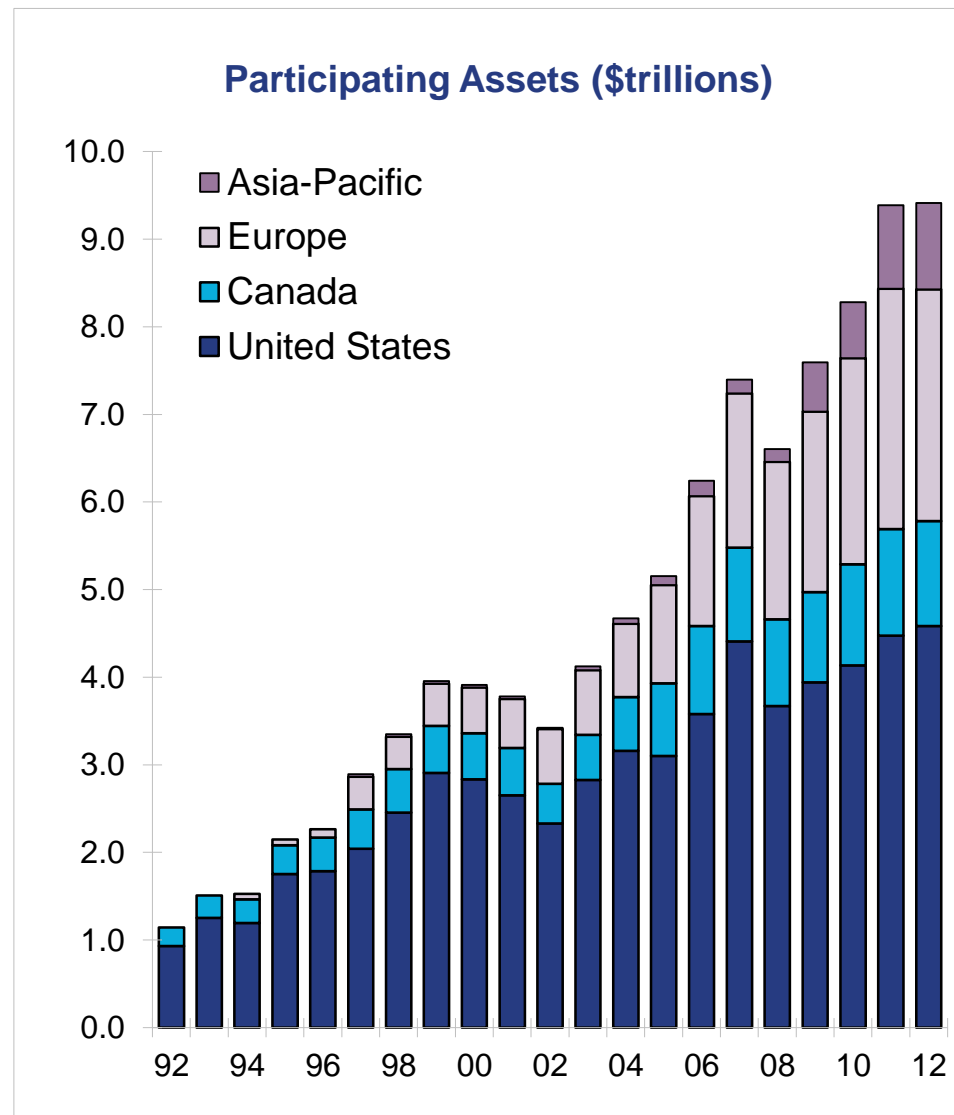
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This benchmarking report compares your cost and return performance to CEM's extensive pension database.

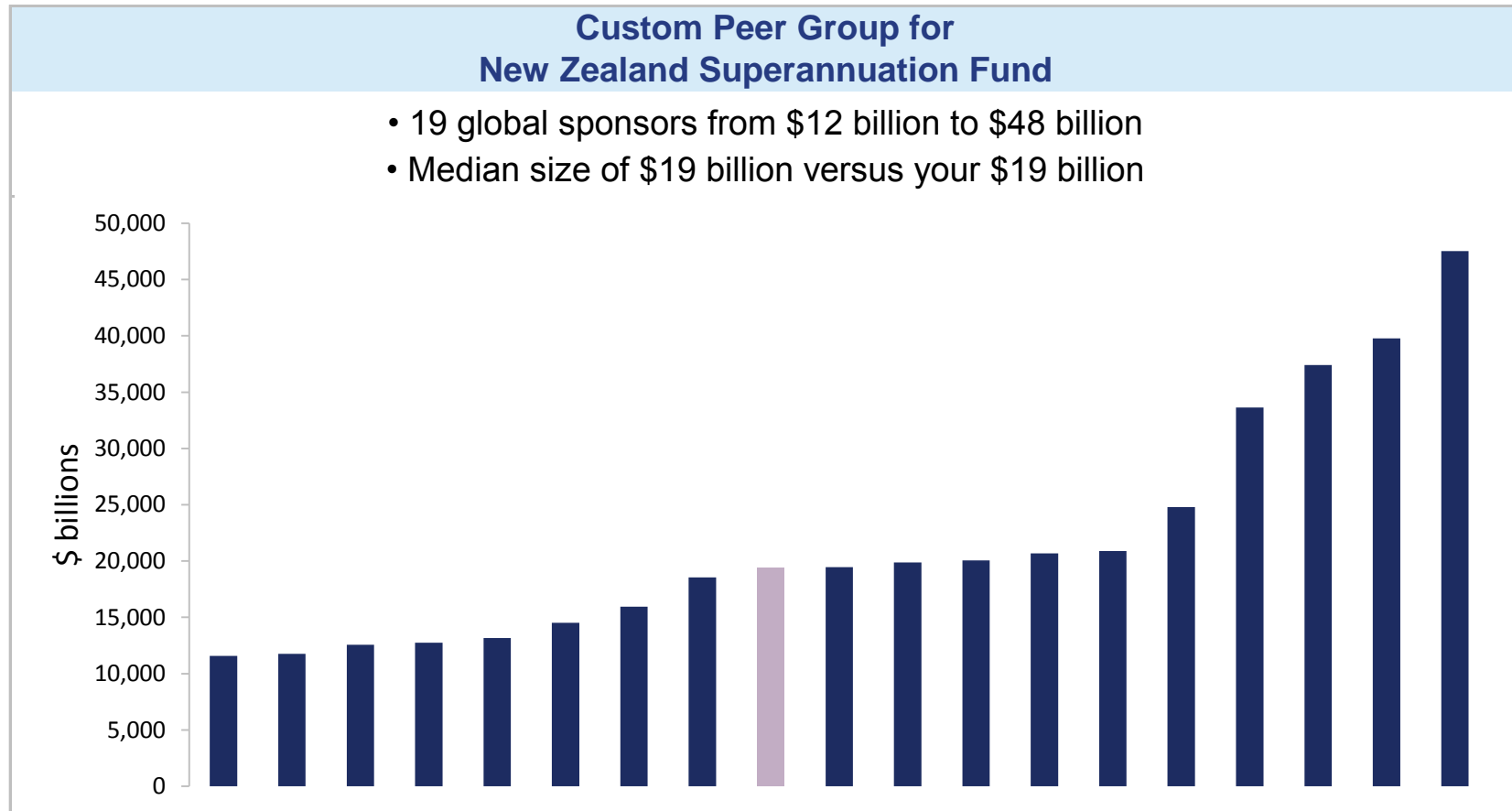
- 190 U.S. funds participate with assets totaling \$4.6 trillion.
- 80 Canadian funds participate with assets totaling \$1,197 billion.
- 56 European funds participate with aggregate assets of \$2.6 trillion. Included are funds from the Netherlands, Norway, Sweden, Finland, Ireland, Denmark and the U.K.
- 8 Asia-Pacific funds participate with aggregate assets of \$989 billion. Included are funds from Australia, New Zealand, China and South Korea.

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



- New Zealand Superannuation Fund

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



The names of the above fund sponsors in your peer group are confidential and may not be disclosed to third parties. All other 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 New Zealand Superannuation Fund.

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 5-year total return of 4.6% was above the Global median of 3.6%.

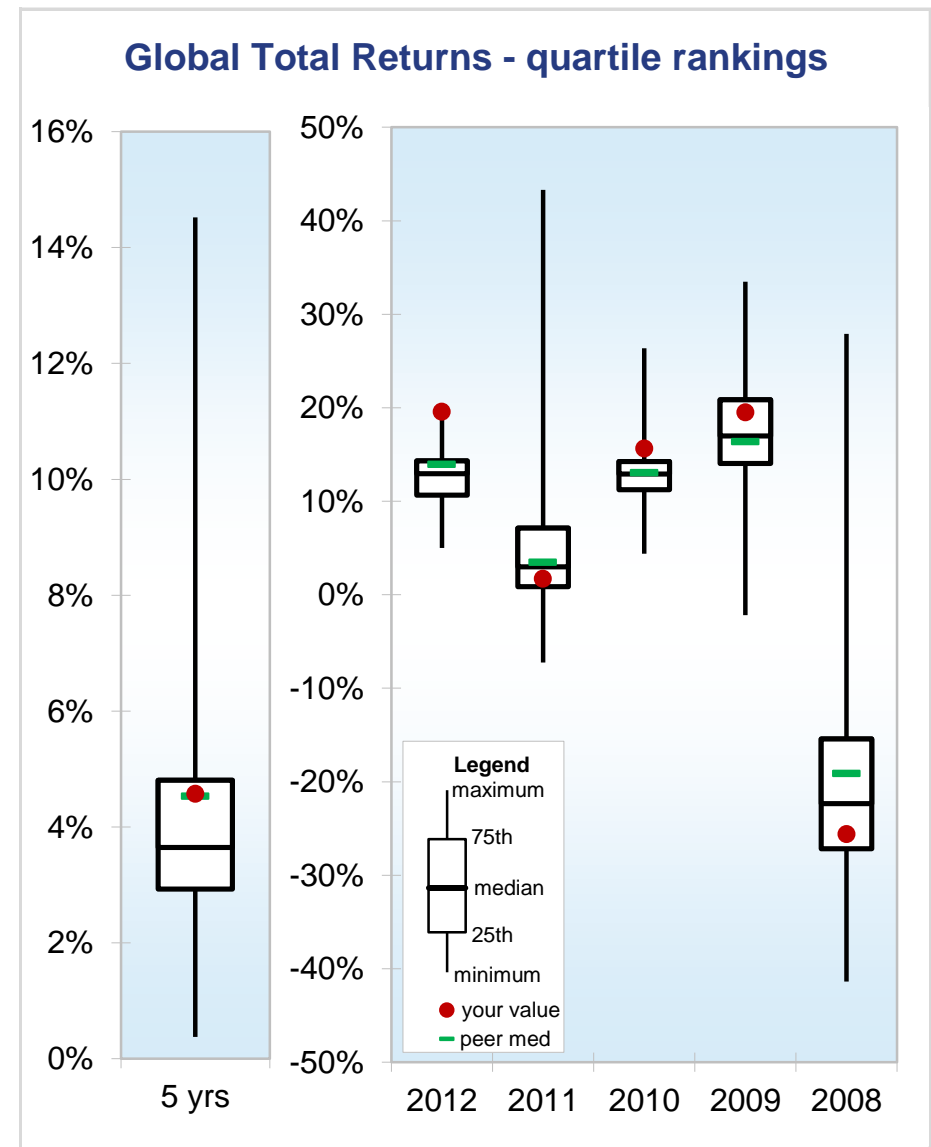
Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return, cost and value added.

	Your 5-yr
Total Fund Return	4.6%
- Policy Return	3.1%
- Cost	0.6%
= 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).

The median 5-year total return of your peers was 4.5%.

Returns are reported in local currency.



1. Policy Return

Your 5-year policy return of 3.1% was slightly below the Global median of 3.4%

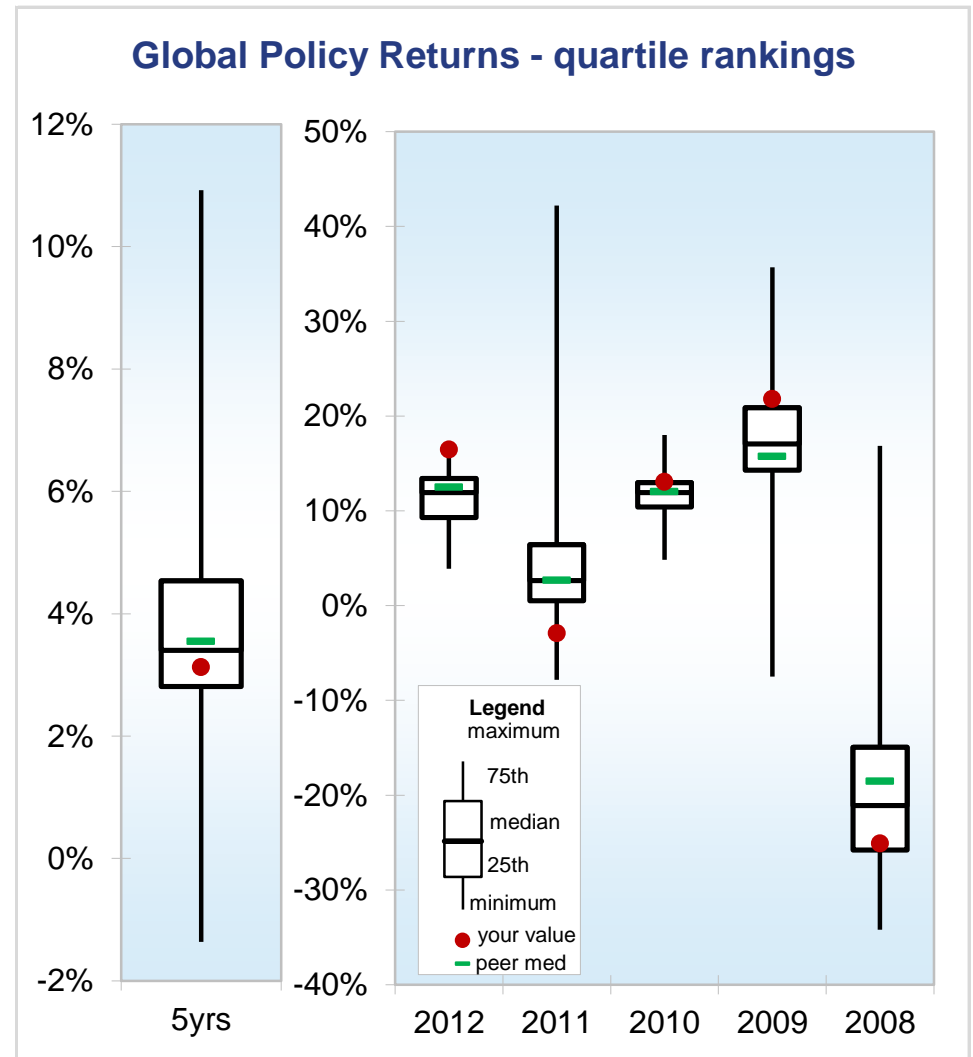
Your policy return is the return you could have earned passively by indexing your investments according to your policy mix.

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 5-year policy return of your peers was 3.6%.



At the end of 2012 your policy mix compared to your peers and the Global universe as follows:

Some notable differences include:

- Your fund had more stock than the peer and Global averages (your 75% versus a peer average of 45% and a Global average of 47%).
- Your fund had no policy allocation to hedge funds or private equity. The average peer fund had allocations of 5% to both and the Global universe average allocation was 3% to hedge funds and 4% to private equity.

Policy Mix	2012		
	Your Fund	Peer Avg.	Global Avg.
Asset Class			
Europe & Far East Stock	5%	6%	6%
U.S. Stock	0%	10%	18%
Emerging Market Stock	0%	4%	2%
Global Stock	70%	13%	9%
Other Stock ¹	<u>0%</u>	<u>12%</u>	<u>13%</u>
Total Stock	75%	45%	47%
U.S. Bonds	0%	5%	10%
Long Bonds	0%	10%	11%
Capital Indexed Bonds	0%	3%	2%
Global Bonds	20%	3%	3%
Other Fixed Income ¹	<u>0%</u>	<u>14%</u>	<u>13%</u>
Total Fixed Income	20%	36%	38%
Hedge Funds	0%	5%	3%
Commodities	0%	1%	1%
Real Estate incl. REITS	5%	6%	5%
Other Real Assets ¹	0%	2%	1%
Private Equity	0%	5%	4%
Total	100%	100%	100%

1. Other stock includes Canadian, Europe, EAFE and ACWIxUS stock. Other fixed income includes Canada and Euro, EAFE bonds. Other real assets includes natural resources and infrastructure.

Your fund uses derivatives, to gain exposure to some asset classes.

For the purposes of comparing your costs and value added to other participants, CEM looks at investments before the impact of derivatives. This allows us to compare, for example, the cost of the global stock assets in your plan to similar assets in your peers' plans. Our report will reflect your assets as they appear in the middle column - before derivatives.

Asset Class	2012		
	Policy Weight	Actual weights excluding derivatives	Actual weights including derivatives
U.S. Stock	0%	1%	1%
Europe & Far East Stock	5%	5%	5%
Emerging Market Stock	0%	5%	7%
Global Stock	70%	10%	49%
Other Stock	<u>0%</u>	<u>0%</u>	<u>0%</u>
Total Stock	75%	21%	62%
Global Bonds	20%	3%	8%
Capital Indexed Bonds	0%	0%	0%
Cash	0%	38%	-8%
Other Fixed Income	<u>0%</u>	<u>0%</u>	<u>1%</u>
Total Fixed Income	20%	42%	0%
Hedge Funds	0%	11%	11%
Natural Resources	0%	9%	9%
Commodities	0%	0%	0%
Infrastructure	0%	7%	7%
REITs	5%	5%	5%
Real Estate	0%	2%	2%
Private Equity	0%	4%	4%
Total	100%	100%	100%

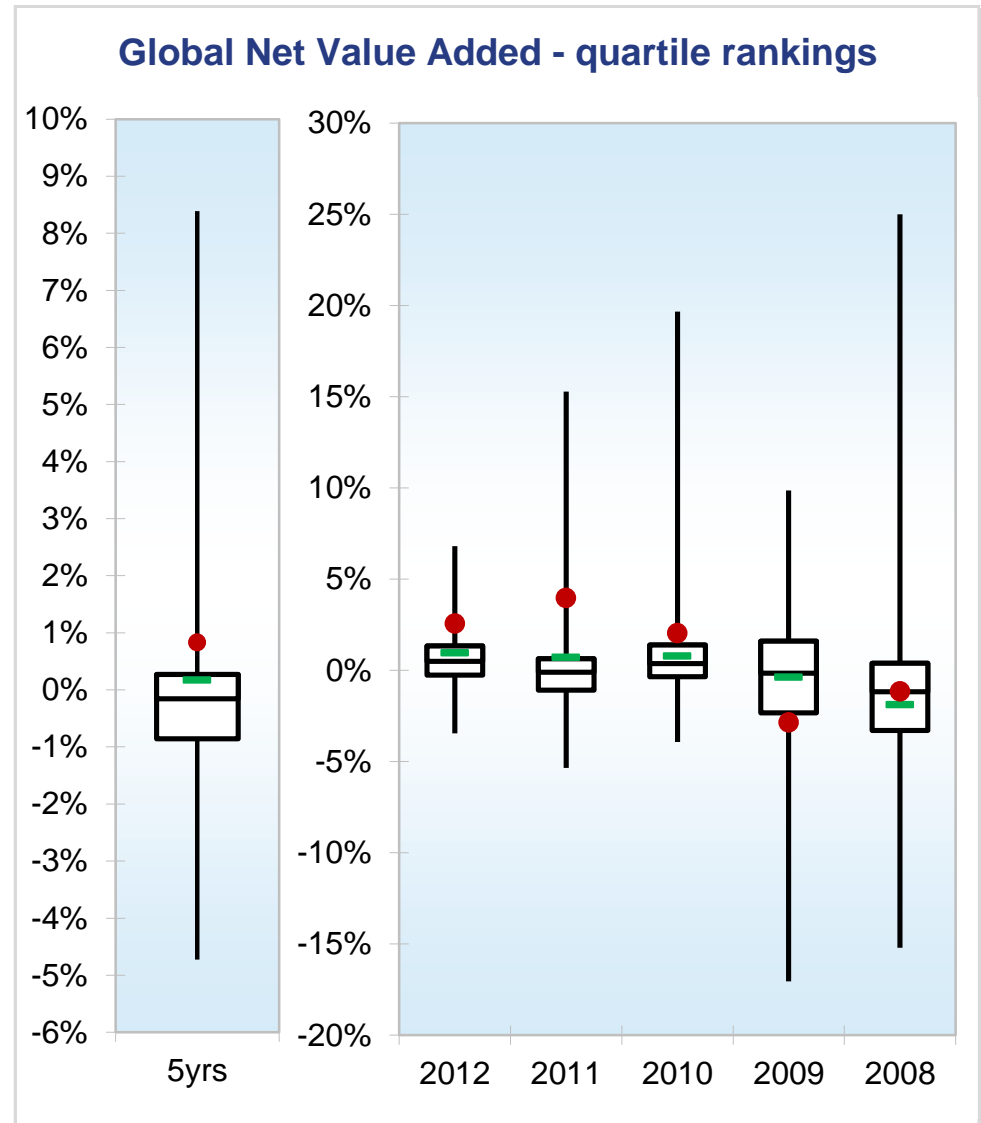
2. Net Value Added

Net value added is the component of total return from active management. Your 5-year net value added was 0.8%.

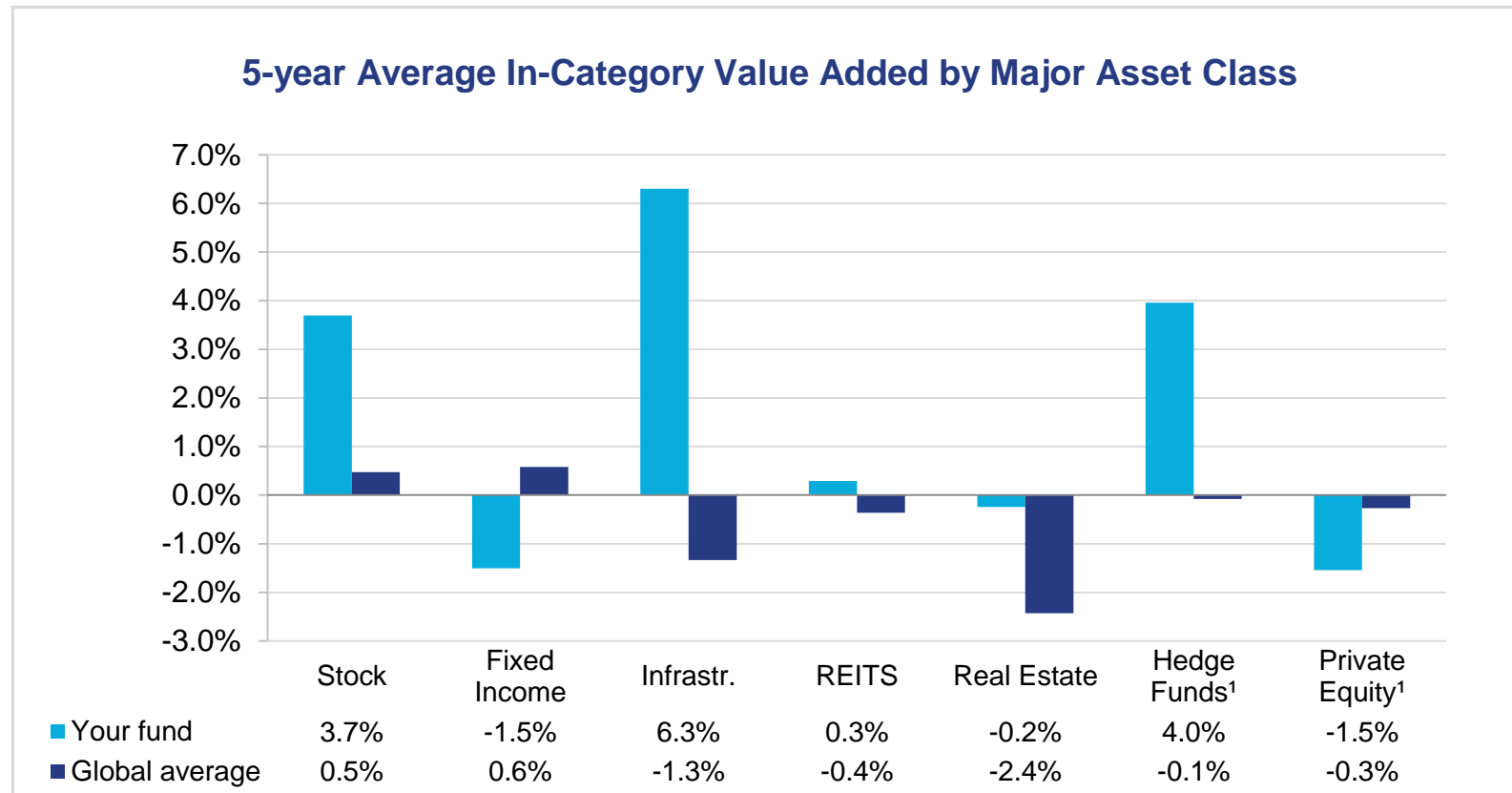
Net value added equals total return minus policy return minus costs.

New Zealand Superannuation Fund				
Year	Total Return	Policy Return	Cost	Net Value Added
2012	19.6%	16.5%	0.6%	2.5%
2011	1.7%	(2.9)%	0.6%	4.0%
2010	15.6%	13.1%	0.5%	2.0%
2009	19.5%	21.8%	0.6%	(2.9)%
2008	(25.6)%	(25.1)%	0.7%	(1.2)%
5-year	4.6%	3.1%	0.6%	0.8%

Your 5-year 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 5-year value added in Stock, Infrastructure, REITS and Hedge Funds.



1. Private equity value added is net whereas the other asset classes are gross. 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 5-year return of -1.0% for private equity was below the Global average of 4.7%. Your 5-year return of 1.2% for hedge funds was below the Global average of 2.8%.

3. Costs

Your asset management costs in 2012 were \$113.7 million or 58.6 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 ¹ & Other	
Stock - U.S.					959	140	1,099
Stock - EAFE	287				2,980	614	3,881
Stock - Emerging			604	200	2,865	733	4,402
Stock - Global			461	400	2,988	1,346	5,195
Stock - Other	78						78
Fixed Income - U.S.	49						49
Fixed Income - EAFE	29						29
Fixed Income - Global			365	578			943
Cash		4,788					4,788
Hedge Funds - Direct REITs			246	603	30,077	1,741	31,818
Real Estate					1,033	460	1,493
Real Estate - LPs					5,006	297	5,303
Infrastructure					11,758	1,400	13,158
Infrastructure - LPs					2,558	28	2,585
Natural Resources		346			5,137	1,774	7,257
Diversified Private Equity					9,979	807	10,785
Other Private Equity		154			2,204	627	2,985
Overlay Programs		3,022					3,022
Total investment management costs							51.4bp 99,720
Your Oversight, Custodial and Other Asset Related Costs ² (\$000s)							
Oversight of the fund							9,266
Trustee & custodial							4,108
Consulting and performance measurement							
Audit							300
Other							267
Total oversight, custodial & other costs							7.2bp 13,941
Total asset management costs							58.6bp 113,661

Notes

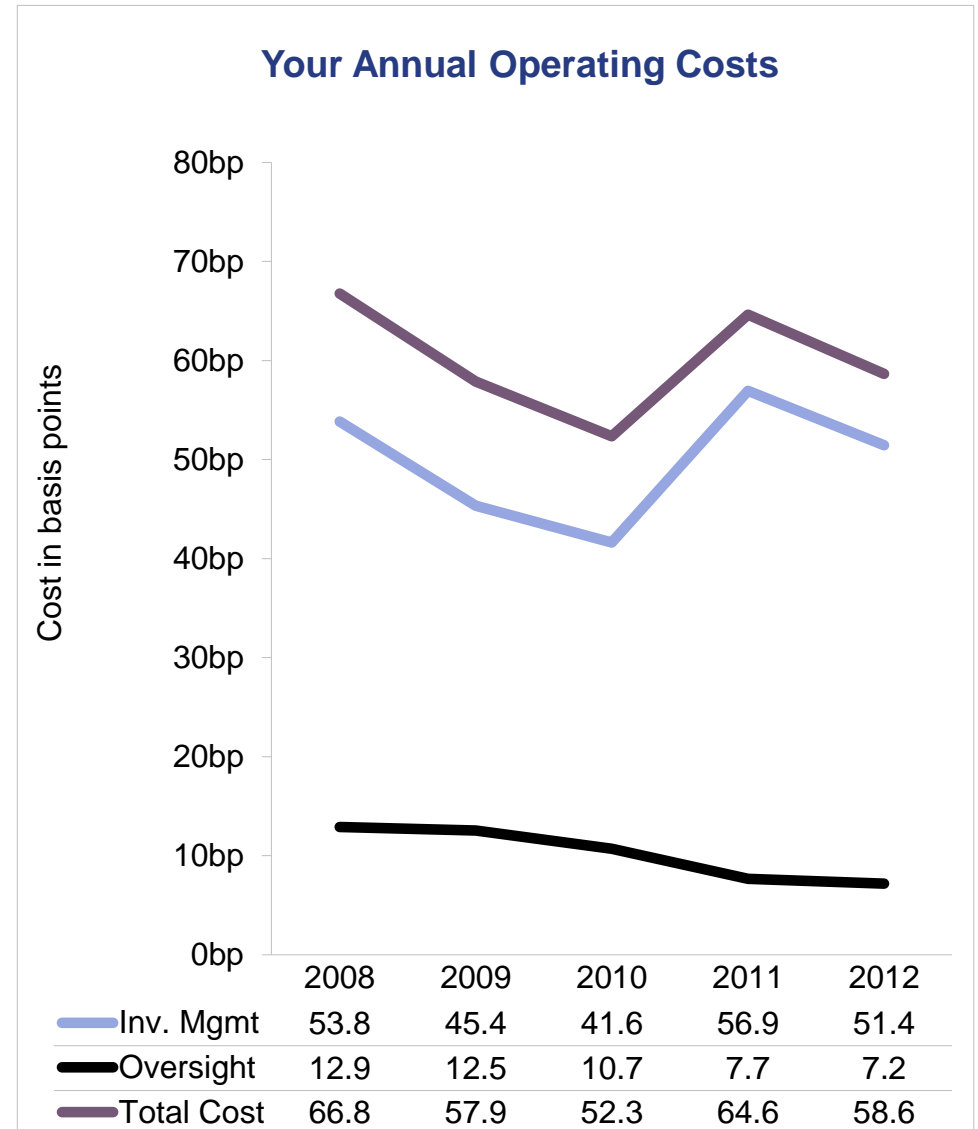
¹ Total cost excludes carry/performance fees for real estate, infrastructure, hedge funds, private equity and overlays. Performance fees are included for the public market asset classes.

² Excludes non-investment costs, such as benefit insurance premiums and preparing cheques for retirees.

Your costs decreased slightly between 2008 and 2012.

Your costs decreased primarily because you decreased your investment in the highest cost asset classes. Your holdings of hedge funds, real estate and private equity decreased from 48% of assets in 2008 to 37% in 2012.

You increased your use of lower cost passive and internal management from 22% of assets in 2008 to 59% in 2012.

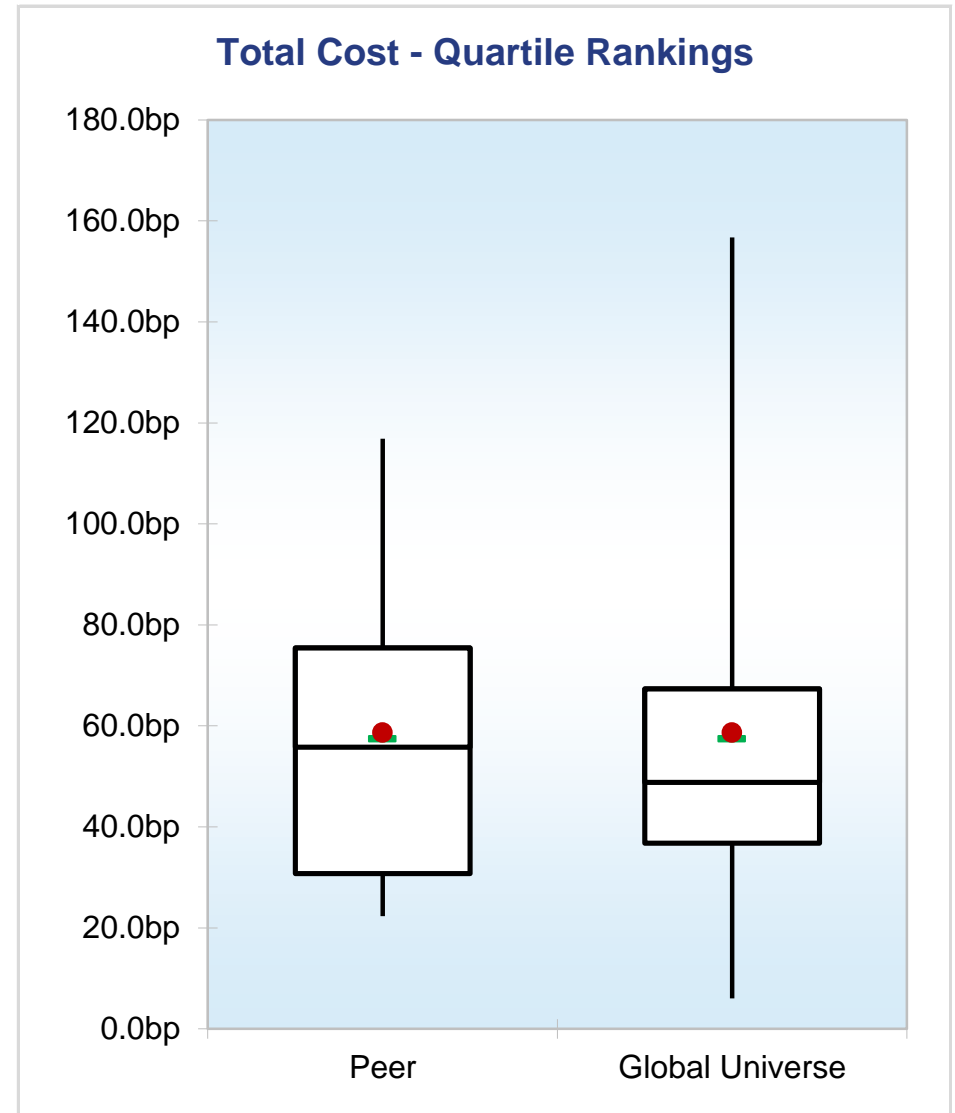
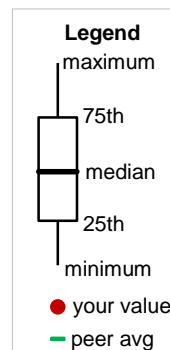


Your total cost of 58.6 bps was close to the peer average of 57.4 bps.

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

- asset mix and
- fund size.

Therefore, to assess whether your costs are high or low, CEM calculates a benchmark cost for your fund (shown on the next page).



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

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.

Your total cost of 58.6 bp was close to your benchmark cost of 57.9 bp. Thus, your excess cost was 0.8 bp.

	\$000s	basis points
Your actual cost	113,661	58.6 bp
Your benchmark cost	<u>112,150</u>	<u>57.9 bp</u>
Your excess cost	1,511	0.8 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	(9,903)	(5.1)
2. Paying more than your peers for similar services	11,414	5.9
Total excess cost in 2012	1,511	0.8

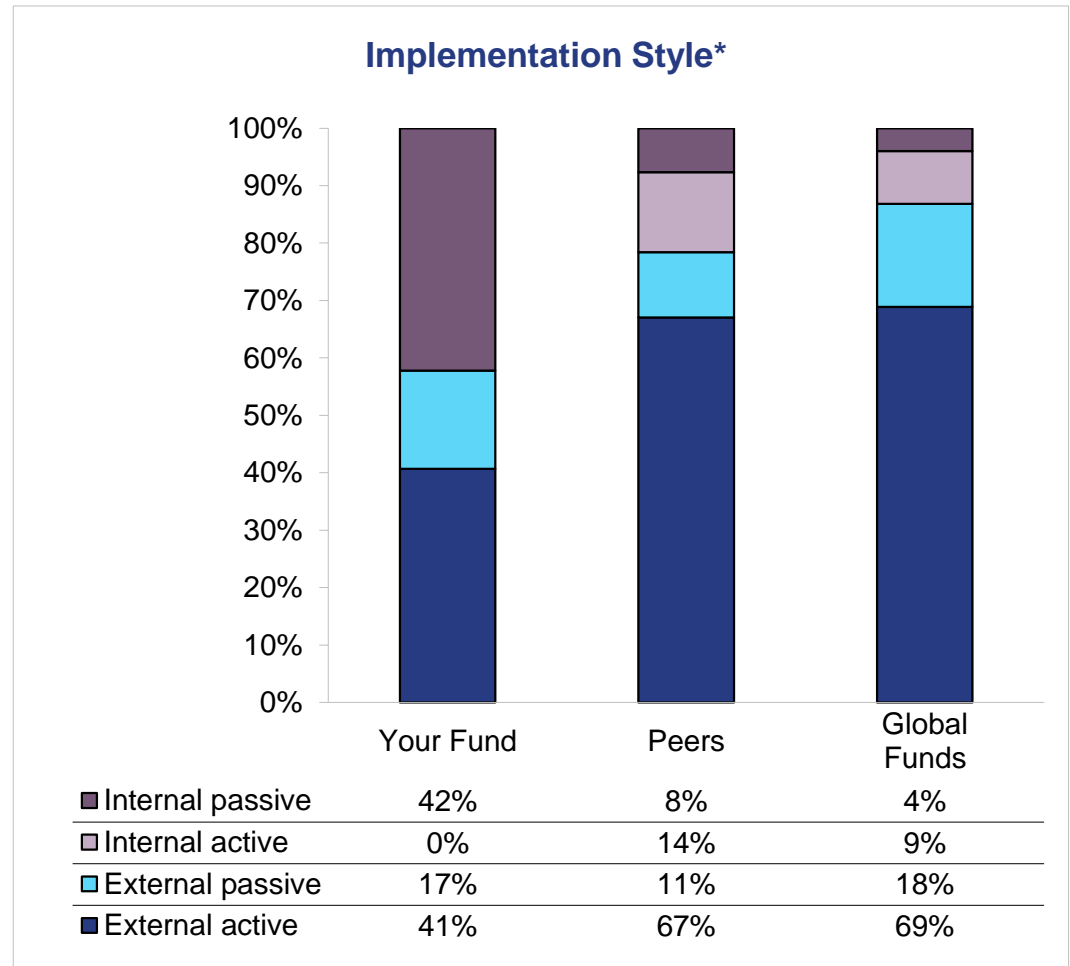
These reasons are examined in detail in the following pages.

Differences in cost performance are 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 41% versus 67% 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 0% of hedge funds, real estate and private equity in fund of funds compared to 13% for your peers.



* The graph above has included an estimate of the impact of derivatives on your implementation style.

Differences in implementation style saved you 5.1 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 - U.S.	142	100.0%	71.0%	29.0%	38.8 bp	160
Stock - EAFE	1,017	66.8%	67.8%	(1.0%)	34.5 bp	(35)
Stock - Emerging	930	31.0%	79.6%	(48.7%)	62.1 bp	(2,808)
Stock - Global	1,925	39.7%	68.4%	(28.7%)	42.8 bp	(2,362)
Stock - Other	52	0.0%	53.0%	(53.0%)	29.7 bp	(82)
Fixed Income - U.S.	39	0.0%	83.0%	(83.0%)	-8.6 bp	28
Fixed Income - EAFE	18	0.0%	7.0%	(7.0%)	Insufficient	0
Fixed Income - Global	641	0.0%	71.3%	(71.3%)	14.9 bp	(681)
Hedge funds	2,039	100.0%	100.0%	0.0%		0
of which Fund of Funds represent:		0.0%	21.4%	(21.4%)	88.5 bp	(3,869)
Infrastructure	1,607	100.0%	94.7%	5.3%	62.2 bp	527
of which Ltd Partnerships represent:		12.4%	20.2%	(7.7%)	27.6 bp	(343)
REITs	872	0.0%	52.0%	(52.0%)	27.2 bp	(1,234)
Real Estate ex-REITs	550	100.0%	72.2%	27.8%	53.2 bp	813
of which Ltd Partnerships represent:		55.1%	49.8%	5.2%	39.3 bp	114
Natural Resources	1,702	83.9%	85.2%	(1.3%)	20.9 bp	(46)
of which Ltd Partnerships represent:		0.0%	13.1%	(13.1%)	Insufficient	0
Diversified Private Equity	571	100.0%	98.9%	1.1%	Insufficient	0
of which Fund of Funds represent:		0.0%	21.6%	(21.6%)	92.0 bp	(1,134)
Other private equity	464	76.8%	95.3%	(18.5%)	145.4 bp	(1,248)
Total		40.7%	67.1%	(26.4%)		(12,200)
Style impact related to fund of funds in bps						(2.6) bp
External active style impact in bps						(3.7) bp
Impact of differences in the use of lower cost styles ³						(0.0) bp
Cost from your higher use of portfolio level overlays						1.2 bp
Total style impact						(5.1) 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 listed as 'Insufficient' indicates that there was not enough peer data to calculate the premium.

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 external investment management costs added 2.6 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 - U.S. - Active	142	77.1	41.6	35.5	506
Stock - EAFE - Active	680	52.9	41.5	11.4	772
Stock - Emerging - Passive	642	12.5	15.9	(3.4)	(215)
Stock - Emerging - Active	288	124.9	78.0	47.0	1,353
Stock - Global - Passive	1,160	7.4	6.5	1.0	110
Stock - Global - Active	765	56.7	49.3	7.4	568
Fixed Income - Global - Passive	641	14.7	11.7	3.1	196
Hedge Funds - Active	2,039	156.1	134.2	21.9	4,464
Infrastructure - Active	1,407	93.5	93.5	0.0	0
Infrastructure - Limited Partnership	200	129.3	121.1	8.2	164
REITs - Passive	872	9.7	9.7*	0.0	0
Real Estate ex-REITs - Active	247	60.4	62.0	(1.6)	(41)
Real Estate ex-REITs - Limited Partnership	303	174.9	101.4	73.6	2,230
Natural Resources - Active	1,428	48.4	71.4	(23.0)	(3,282)
Diversified Private Equity - Active	571	189.0	172.7	16.4	934
Other Private Equity - Active	356	79.5	155.9	(76.4)	(2,718)
Total external investment management impact				2.6 bp	5,041

*Universe median used as peer data was insufficient.

The net impact of differences in internal investment management costs saved 0.9 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 - EAFE - Passive	337	8.5	8.5	(0.0)	(1)
Stock - Other - Passive	52	15.0	7.0	8.0	42
Fixed Income - U.S. - Passive	39	12.5	2.4*	10.0	39
Fixed Income - EAFE - Passive	18	15.7	1.9*	13.8	25
Natural Resources - Active	274	12.6	50.5	(37.9)	(1,041)
Other Private Equity - Active	108	14.3	10.5	3.8	41
	<i>Notional</i>				
Derivatives/Overlays - Currency - Hedge	10,577	0.3	0.4	(0.1)	(133)
Derivatives/Overlays - Passive Beta	8,940	2.2	2.2	0.0	0
Derivatives/Overlays - Policy Tilt TAA	11,973	0.6	1.2	(0.5)	(623)
Derivatives/Overlays - Other	4	0.0	3.7	(3.7)	(1)
Total internal investment management impact				(0.9) bp	(1,652)

*Universe median used as peer data was insufficient.

The net impact of differences in oversight, custodial & other costs added 4.1 bps.

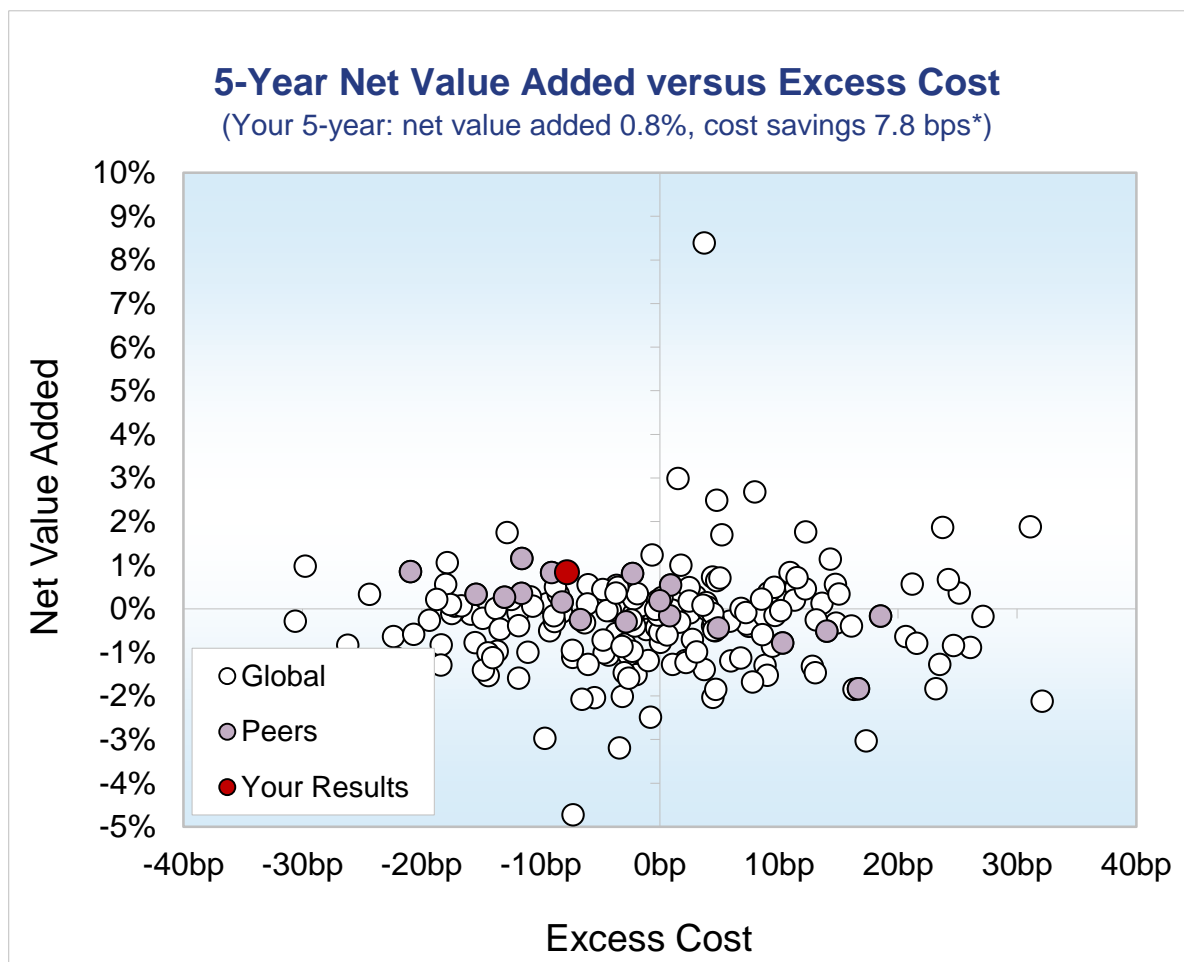
Impact of Differences in Oversight, Custodial & Other Costs					
	Your avg holdings in \$mils	Cost in bps			Cost/ (Savings) in \$000s
		Your Fund	Peer median	More/ (Less)	
Oversight	19,382	4.8	1.6	3.2	6,220
Custodial / trustee	19,382	2.1	0.9	1.2	2,376
Consulting / performance measurement	19,382	0.0	0.4	(0.4)	(723)
Audit	19,382	0.2	0.1	0.1	152
Other	19,382	0.1	0.1	0.0	0
Total impact				4.1 bp	8,025

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	(5,003)	(2.6)
• Less external active management and more lower cost passive and internal management	(7,197)	(3.7)
• Higher use of overlays	2,338	1.2
• Other style differences	<u>(41)</u>	<u>(0.0)</u>
	(9,903)	(5.1)
2. Paying more than your peers for similar services		
• External investment management costs	5,041	2.6
• Internal investment management costs	(1,652)	(0.9)
• Oversight, custodial & other costs	<u>8,025</u>	<u>4.1</u>
	11,414	5.9
Total excess cost	1,511	0.8

4. Cost Effectiveness

Your 5-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.



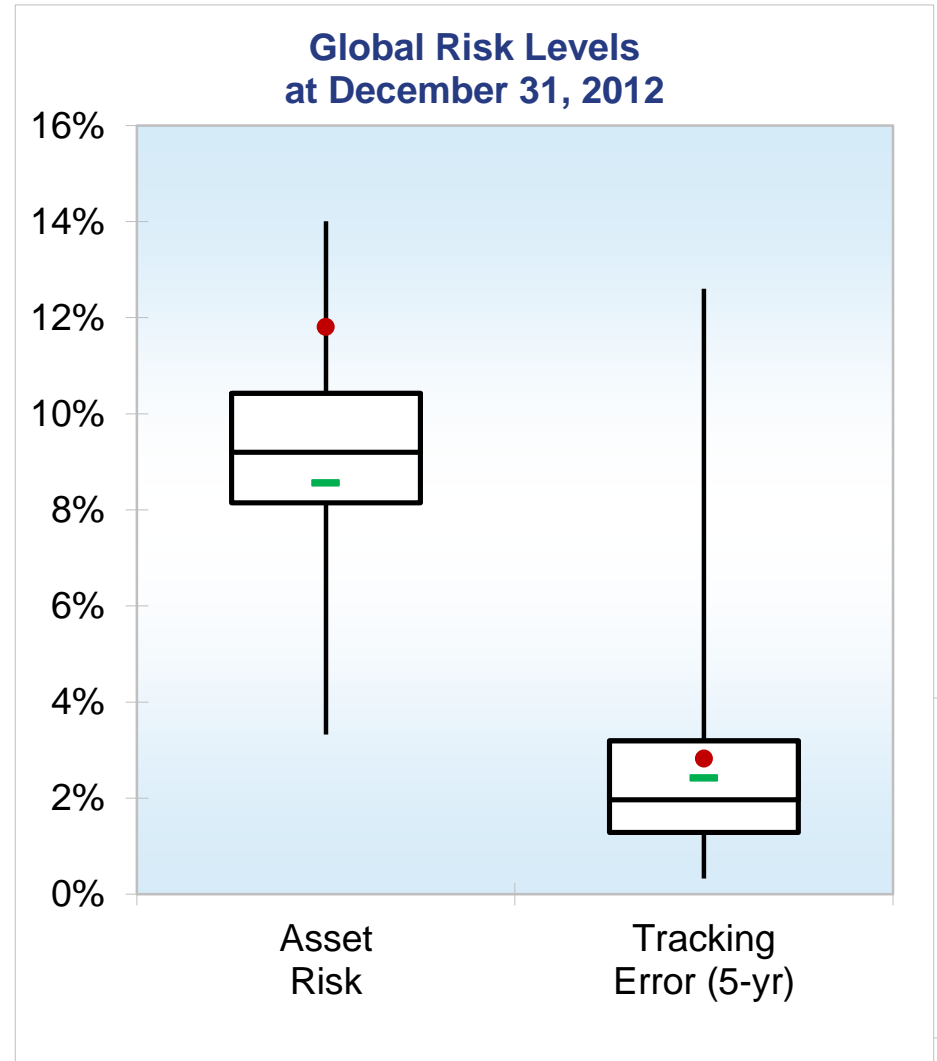
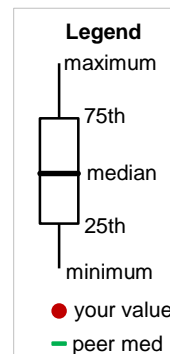
Your 5-year cost savings of 7.8 basis points is the average of your cost savings for the past 5 years.

5. Risk

Comparison of risk levels

Your asset risk of 11.8% was above the Global median of 9.2%. Asset risk is the standard deviation of your policy return. It is based on the historical variance of, and covariance between, the asset classes in your policy mix.

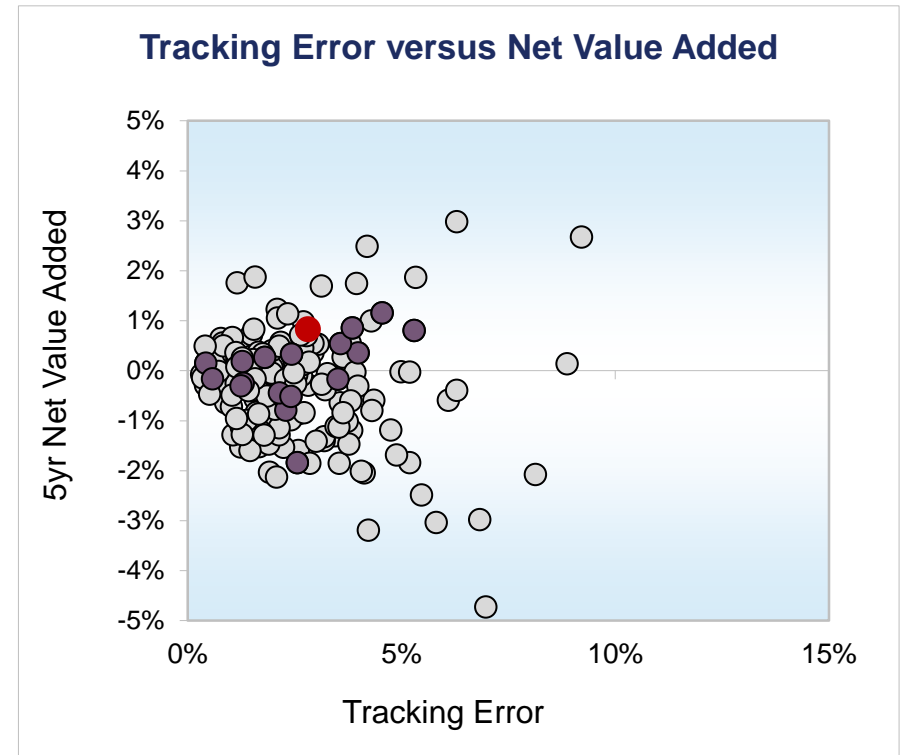
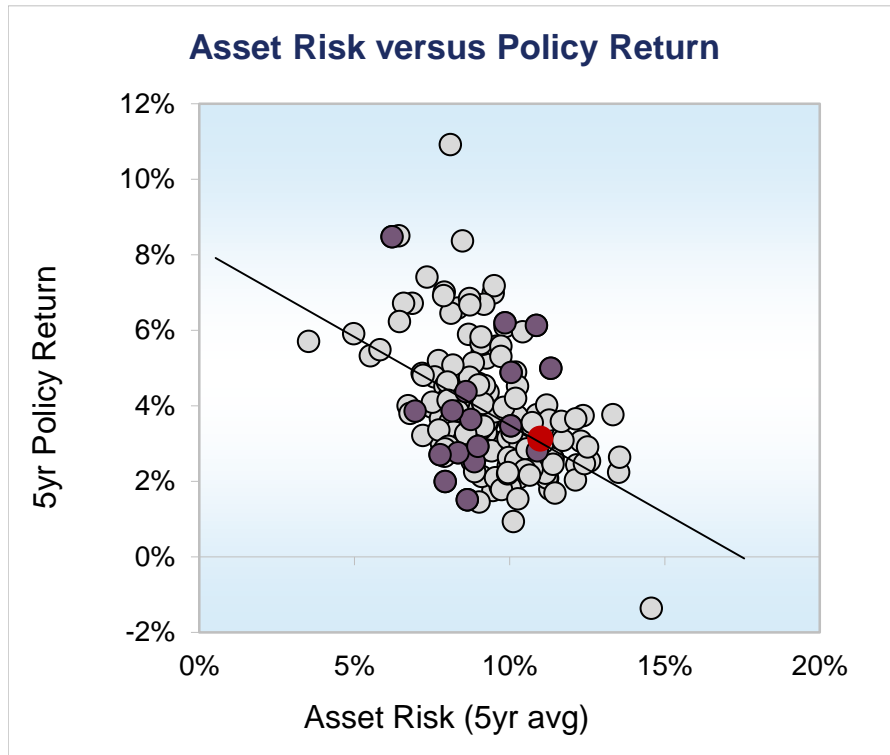
Your tracking error of 2.8% was above the Global median of 2.0%. Tracking error is the risk of active management. It equals the standard deviation of your annual net value added.



During the 5-year period ending 2012, 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.



In summary:

1. Policy Return

Your 5-year policy return was 3.1%. This compares to the Global median of 3.4% and the peer median of 3.6%.

2. Value Added

Your 5-year net value added was 0.8%. This was above the Global median of -0.2% and above the peer median of 0.2%.

3. Costs

Your actual cost of 58.6 bps was close to your benchmark cost of 57.9 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

Your 5-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.

5. Risk

Your asset risk of 11.8% was above the Global median of 9.2%. Your tracking error of 2.8% was above the Global median of 2.0%.