# Investment Cost Effectiveness Analysis 2014

# Norwegian Government Pension Fund Global



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#### 5 Total cost and benchmark cost

Profit/Loss on overlay programs

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Prepared December 11, 2015. Although the information in this report has been based upon and obtained from sources we believe to be reliable, Cost Effectiveness Measurement Inc. ("CEM") does not guarantee its accuracy or completeness. The information contained herein is proprietary and confidential and may not be disclosed to third parties without the express written mutual consent of both CEM and Norwegian Government Pension Fund Global.

## **Key takeaways**

#### **Returns**

- All returns have been converted using the GPFG currency basket. However, differences in total returns reflect in large part home-market biases and the relative performance of currencies. So they are not the primary focus of this report.
- Your 10-year net total return was 6.1%. This was below the Global median of 7.2% and below the peer median of 7.0%.
- Your 10-year policy return was 6.1%. This was below the Global median of 7.1% and below the peer median of 7.1%.
  - One of the key drivers of your lower policy returns was your higher relative weight in fixed income over this time period, which performed poorly relative to stock, real estate and private equity.

#### Value added

• Your 10-year net value added was 0.0%. This was close to the Global median of 0.1% and above the peer median of -0.1%.

#### Cost

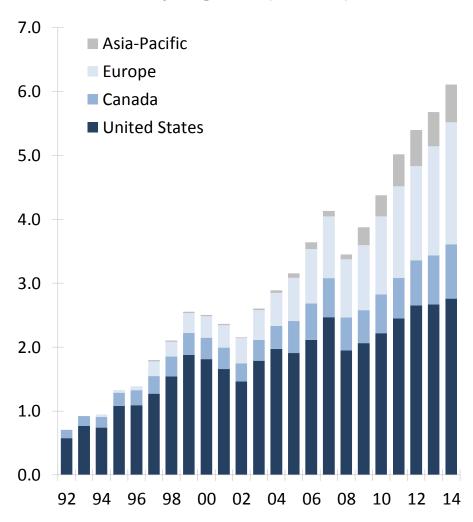
- Your investment cost of 6.0 bps was below your benchmark cost of 19.3 bps. This suggests that your fund was low cost compared to your peers.
- Your fund was low cost because you had a lower cost implementation style and you paid less than peers for similar services
- Your 10-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.

# This benchmarking report compares your cost and return performance to the 328 funds in CEM's extensive pension database.

- 168 U.S. funds participate with assets totaling €2.8 trillion.
- 83 Canadian funds participate with assets totaling €855 billion.
- 67 European funds participate with aggregate assets of €1.9 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 €593 billion. Included are funds from Australia, New Zealand, China and South Korea.
- 2 Gulf region funds participate.

In the global database the types of funds can be split as follows 49% corporate, 36% public and 15% other.

#### **Participating assets (€ trillions)**



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

#### **Peer group for Norwegian Government Pension Fund Global**

- 16 global sponsors from €41 billion to €656 billion
- Median size of €143 billion versus your €656 billion
- 3 Canadian funds, 5 European funds, 3 Asia-Pacific funds and 5 U.S. funds make up the Global peer group.
- In the report there are also comparisons to CEM's Global database of participants.

### Your 10-year net total return of 6.1% compares to the peer median of 7.0%

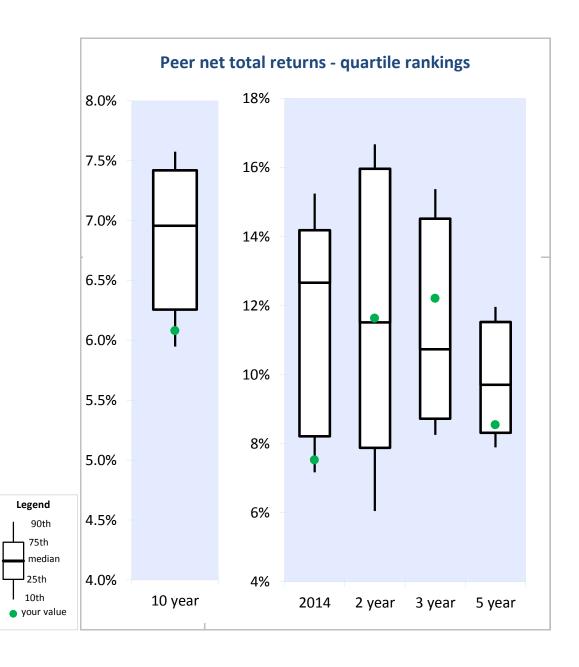
Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return and value added.

|                       | Your 10-year |
|-----------------------|--------------|
| Net total fund return | 6.1%         |
| - Policy return       | 6.1%         |
| = Net value added     | 0.0%         |

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.

The fund return consists of Equity, Fixed Income and Real Estate. The fund benchmark is the weighted benchmark of Equity and Fixed Income, the benchmark for Real Estate used in the report is the actual portfolio return.



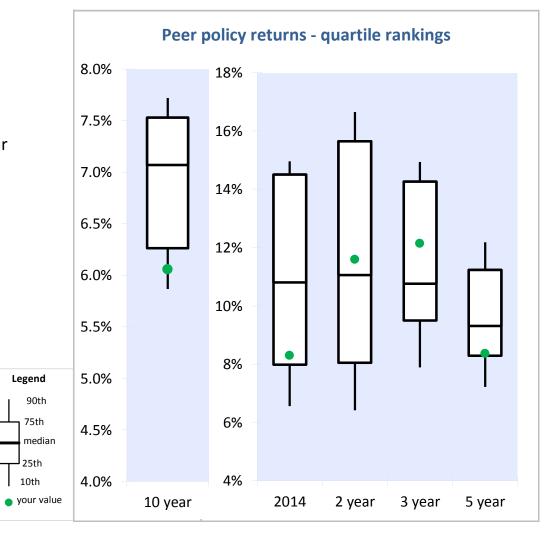
### Your 10-year policy return of 6.1% compares to the peer median of 7.1%.

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.



To enable fairer comparisons, the policy returns of all participants with policy weight in private equity were adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. Refer to the Research section pages 6-7 for details.

### Your policy asset mix compares to the peer and Global averages as follows:

- Your fund had more fixed income than the average Peer or Global fund (your 45% versus a peer average of 32% and global average of 37%).
- Your policy asset mix is more globally diversified than the average Peer or Global fund.
- Your fund is in the early stages of the allocation to real assets (with a 2% allocation in 2014), and has no hedge funds or private equity whereas the peer funds had allocations of 12%, 2% and 6% respectively. The Global funds' allocations were 7%, 3% and 4%.

#### **10-Year average policy mix**

|                          | Your<br>Fund | Peer<br>Avg. | Global<br>Avg. |
|--------------------------|--------------|--------------|----------------|
| Stock                    | 54%          | 49%          | 51%            |
| Fixed Income             | 45%          | 32%          | 37%            |
| Hedge Funds              | 0%           | 2%           | 3%             |
| Real Assets <sup>1</sup> | 0%           | 12%          | 7%             |
| Private Equity           | 0%           | 6%           | 4%             |
| Total                    | 100%         | 100%         | 100%           |

<sup>1.</sup> Real assets includes commodities, natural resources, infrastructure, REITS and real estate.

Regional allocations can significantly influence the policy return. GPFG's overweight in European securities and the peer group's overweight in North American securities would cause a difference in the policy returns. Variations in the fixed income portfolios, such as duration, credit quality and country allocation within regions would have an impact as well. Not being invested in asset classes like real estate and private equity had a minor impact on GPFG's policy return.

# Net value added is the component of total return from active management. Your 10-year net value added was 0.0%.

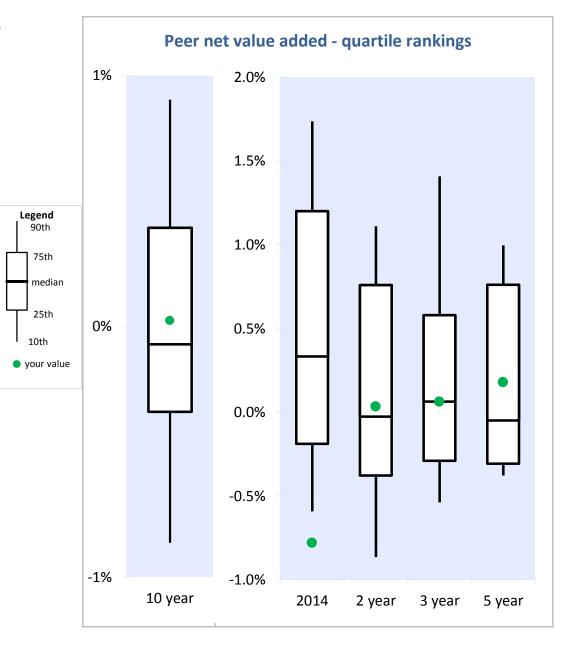
Net value added equals total net return minus policy return.

# Value added for Norwegian Government Pension Fund Global

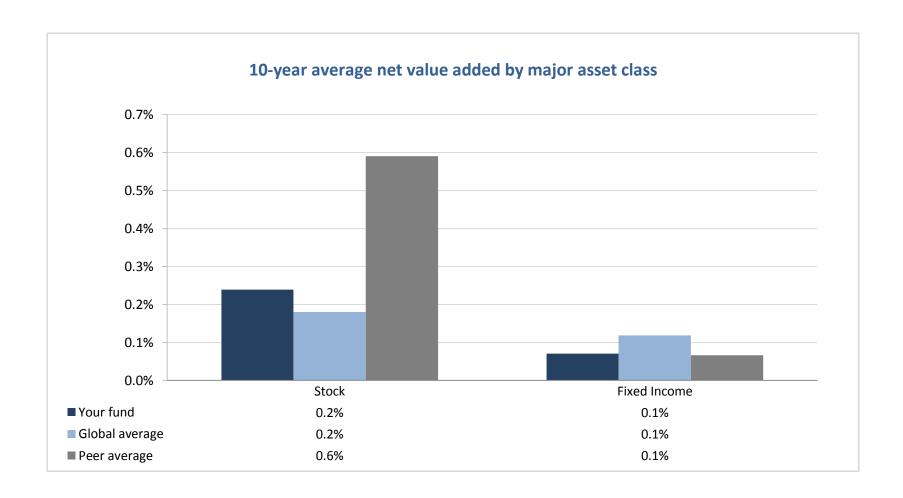
|         | Net     | Policy  | Net value |
|---------|---------|---------|-----------|
| Year    | Return  | Return  | Added     |
| 2014    | 7.5%    | 8.3%    | (0.8%)    |
| 2013    | 15.9%   | 15.0%   | 0.9%      |
| 2012    | 13.4%   | 13.2%   | 0.1%      |
| 2011    | (2.6%)  | (2.4%)  | (0.2%)    |
| 2010    | 9.5%    | 8.6%    | 0.9%      |
| 2009    | 25.5%   | 21.5%   | 4.0%      |
| 2008    | (23.4%) | (19.9%) | (3.5%)    |
| 2007    | 4.2%    | 4.5%    | (0.3%)    |
| 2006    | 7.8%    | 7.8%    | 0.1%      |
| 2005    | 11.0%   | 10.0%   | 1.0%      |
| 10-year | 6.1%    | 6.1%    | 0.0%      |

Your 10-year net value added of 0.0% compares to a median of -0.1% for your peers and 0.1% for the Global universe.

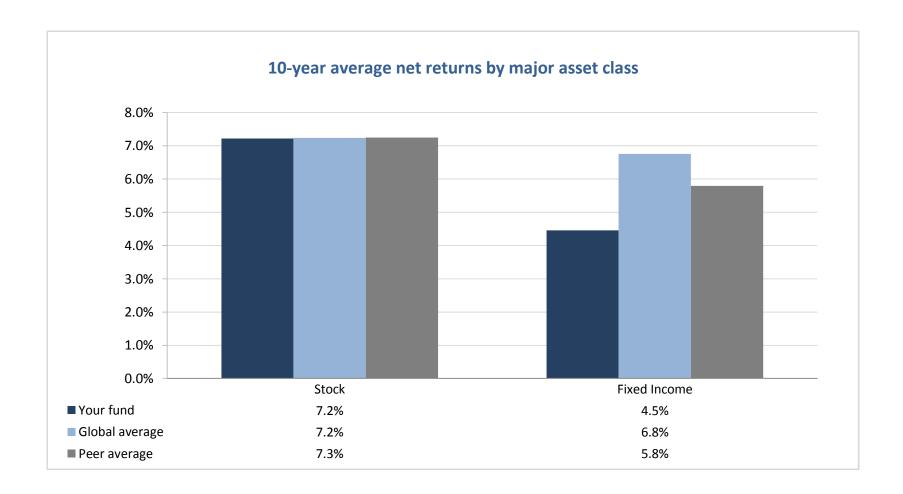
The fund return consists of Equity, Fixed Income and Real Estate. The fund benchmark is the weighted benchmark of Equity and Fixed Income, the benchmark for Real Estate used in the report is the actual portfolio return.



## You had positive 10-year net value added in Stock and Fixed Income.



# Your 10-year returns for Stock and Fixed Income compare to the Peer and Global averages as follows.



## Your investment costs were €393.3 million or 6.0 basis points in 2014.

| Asset management costs by          | Inter             | nal Mgmt      | External Ma | anagement |         |       |
|------------------------------------|-------------------|---------------|-------------|-----------|---------|-------|
| asset class and style (€000s)      | Active            | Overseeing    | Active      | Perform.  |         |       |
|                                    |                   | of external   | base fees   | fees 1    | Tota    | al    |
| Stock - Global                     | 81,998            | 4,326         | 50,165      | 77,696    | 214,185 |       |
| Fixed Income - Global              | 25,671            | 180           | 3,153       |           | 29,004  |       |
| Real Estate Operating Sub.         | 28,131            |               |             |           | 28,131  |       |
| Total excluding private asset perf | ormance           | fees          |             |           | 271,320 | 4.1bp |
|                                    |                   |               |             |           |         |       |
| Oversight, custodial and other co  | osts <sup>2</sup> |               |             |           |         |       |
| Oversight of the fund              |                   |               |             |           | 59,310  |       |
| Trustee & custodial                |                   |               |             |           | 51,964  |       |
| Consulting and performance mea     | suremen           | t             |             |           | 6,363   |       |
| Audit                              |                   |               |             |           | 4,314   |       |
| Total oversight, custodial & other | costs             |               |             |           | 121,951 | 1.9bp |
|                                    |                   |               |             |           |         |       |
| Total investment costs (excl. tran | saction c         | osts & privat | e asset     |           | 393,271 | 6.0bp |
| performance fees)                  |                   |               |             |           |         |       |

#### Footnotes

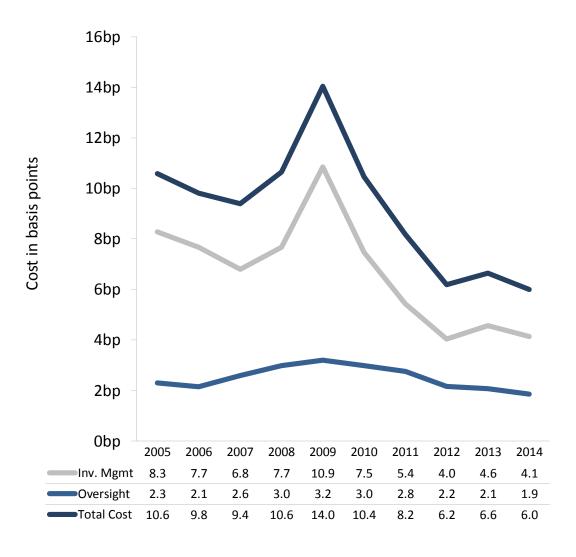
<sup>1</sup>Total cost excludes carry/performance fees for real estate, infrastructure, natural resources and private equity. Performance fees are included for the public market asset classes and hedge funds.

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

### Your costs decreased between 2005 and 2014.

 You increased your use of lower cost internal management from 78% of assets in 2010 to 96% in 2014.

#### **Trend in your investment costs**

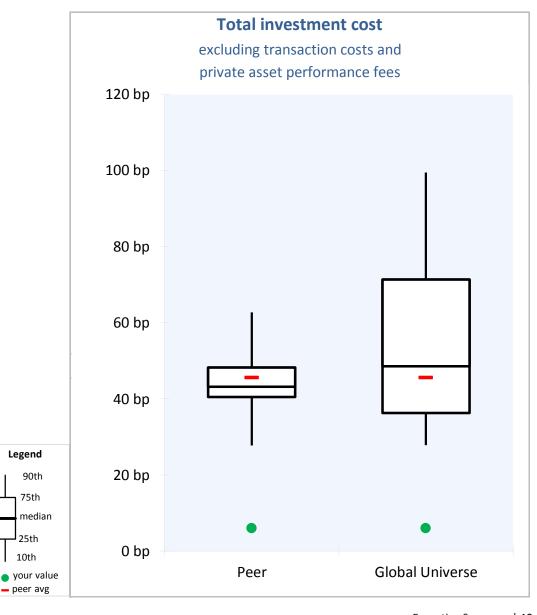


# Your total investment cost of 6.0 bps was the lowest of the peers and was substantially below the peer median of 43.2 bps.

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

- Asset mix, particularly holdings of the highest cost asset classes: real estate (excl REITS), infrastructure, hedge funds and private equity. These high cost assets equaled 1% of your funds assets at the end of 2014 versus a peer average of 20%.
- Fund size. Bigger funds have advantages of scale.

Therefore, to assess whether your costs are high or low given your unique asset mix and size, CEM calculates a benchmark cost for your fund. This analysis is shown on the following page.



# Benchmark cost analysis suggests that, after adjusting for fund size and asset mix, your fund was low cost by 13.3 basis points in 2014.

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 6.0 bp was below your benchmark cost of 19.3 bp. Thus, your cost savings was 13.3 bp.

#### Your cost versus benchmark

|                            | €000s     | basis points |
|----------------------------|-----------|--------------|
| Your total investment cost | 393,271   | 6.0 bp       |
| Your benchmark cost        | 1,263,811 | 19.3 bp      |
| Your excess cost           | (870,540) | (13.3) bp    |

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# Your fund was low cost because you had a lower cost implementation style and you paid less than peers for similar services

#### Reasons for your low cost status

|  | Excess Cost/<br>(Savings) |        |
|--|---------------------------|--------|
|  | €000s                     | bps    |
| Lower cost implementation style  |                           |        |
| <ul> <li>Less external active management<br/>(more lower cost internal)</li> </ul> | (574,551)                 | (8.8)  |
| <ul> <li>Less overlays</li> </ul>  | (168,799)                 | (2.6)  |
| <ul> <li>Other style differences</li> </ul>  | 90,044                    | 1.4    |
|  | (653,306)                 | (10.0) |
| 2. Paying less than peers for similar services                                     |                           |        |
| External investment management costs   | 20,114                    | 0.3    |
| <ul> <li>Internal investment management costs</li> </ul>                           | (230,363)                 | (3.5)  |
| <ul> <li>Oversight, custodial &amp; other costs</li> </ul>                         | (6,985)                   | (0.1)  |
|  | (217,234)                 | (3.3)  |
| Total savings  | (870,540)                 | (13.3) |

# 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 4% versus 37% for your peers).
- Within external active holdings, fund of funds usage because it is more expensive than direct fund investment.

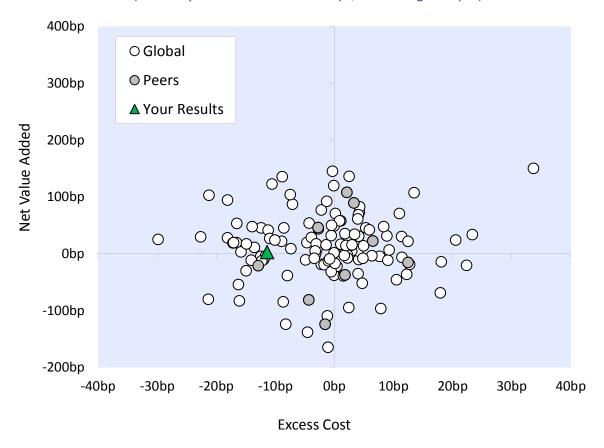
#### Implementation style<sup>1</sup> 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% **Global Funds** Your Fund Peers ■ Internal passive 0% 18% 4% Internal active 96% 11% 35% External passive 0% 9% 19% ■ External active 37% 4% 66%

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

# Your 10-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.

#### 10-Year net value added versus excess cost

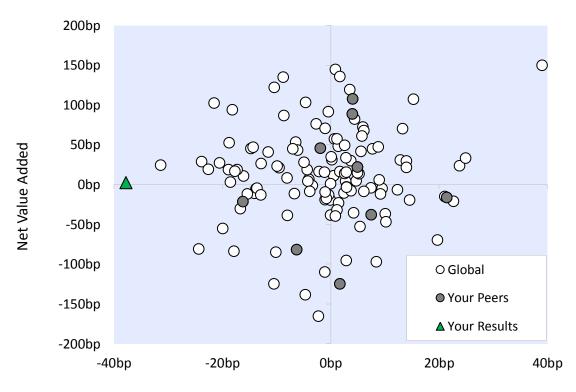
(Your 10-year: net value added 2 bps, cost savings 11 bps 1)



<sup>1.</sup> Your 10-year cost savings of 11 basis points is the average of your cost savings for the past 10 years.

## Net value added versus excess cost as a percentage of benchmark cost

#### 10-year net value added versus excess cost as a % of benchmark cost



Excess cost as a % of benchmark cost

# 2

# Research and Trends

| Net value added  |    |
|--|----|
| - By region  | 2  |
| - Trends   | 3  |
| - By asset class   | 4  |
| - By style   | 5  |
| Private equity benchmarks  | 6  |
| Implementation style   |    |
| - Global trends  | 8  |
| - Global   | 9  |
| Policy asset mix   |    |
| - Global trends  | 10 |
| - Global   | 11 |
| Impact of inflation sensitivity on policy asset mix decisions    | 12 |
| Cost trends  | 13 |
| Performance of defined benefit versus defined contribution plans | 14 |

## The region with the highest net value added was Europe.

#### Value added by region<sup>1</sup> (period ending December 31, 2014)

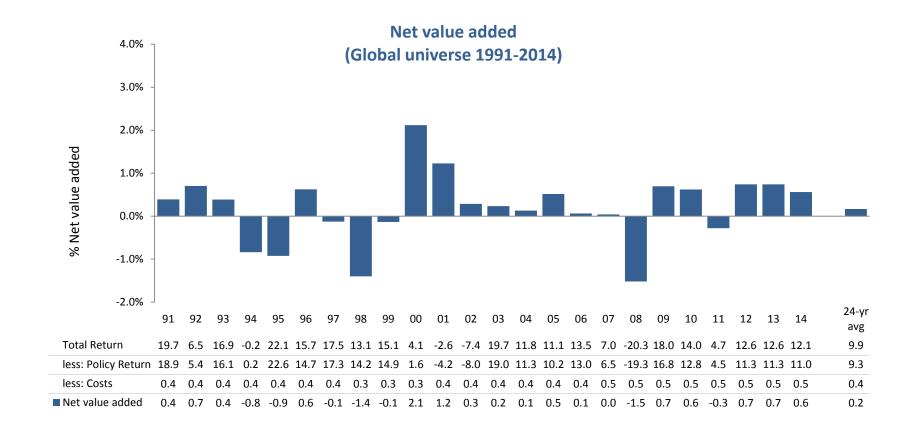
|                              |           | U.S.         | Canadian     | European | Asia-Pacific |
|------------------------------|-----------|--------------|--------------|----------|--------------|
|                              | All funds | funds        | funds        | funds    | funds        |
|                              | 24-year   | 24-year      | 24-year      | 21-year² | 15-year²     |
|                              | average³  | average³     | average³     | average³ | average³     |
| Total return                 | 9.92%     | 10.18%       | 9.69%        | 8.04%    | 7.98%        |
| - Policy return              | 9.33%     | 9.52%        | 9.18%        | 7.32%    | 7.80%        |
| - Costs                      | 0.42%     | <u>0.47%</u> | <u>0.37%</u> | 0.30%    | 0.49%        |
| = Net value added            | 0.17%     | 0.19%        | 0.14%        | 0.42%    | -0.31%       |
| # of annual observations     | 7,124     | 4,058        | 2,266        | 674      | 109          |
| Median fund size (€ billion) | 6.3       | 9.6          | 1.9          | 8.8      | 18.0         |

<sup>1.</sup> Only regions with more than four participating funds are separately disclosed. Funds from regions with fewer than four participating funds are included in Global/ All Funds.

<sup>2.</sup> The shorter time periods for European and Asia-Pacific funds reflect the dates that CEM started collecting data in those regions.

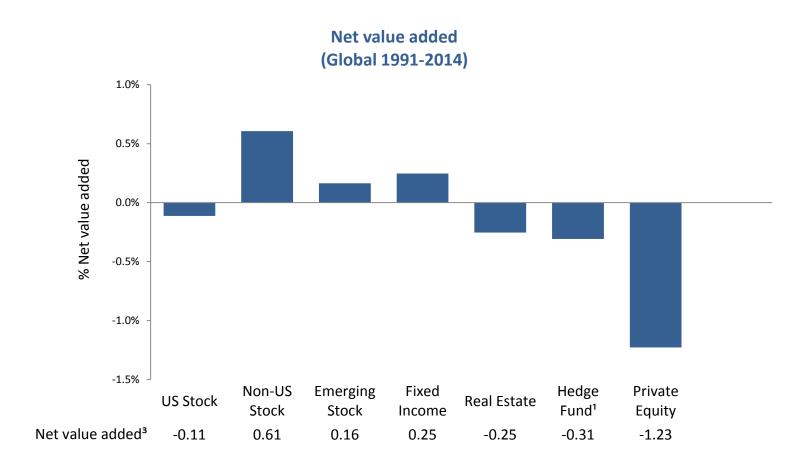
<sup>3.</sup> Averages are the arithmetic average of annual averages.

## In the Global universe, net value added averaged 0.2% over the past 24 years **ending 2014.**



Value added analysis is based on 7,124 annual fund total performance observations from the CEM Global universe for the 24-year period ending 2014. The 24-year average is an arithmetic average of the annual averages.

## The asset class that had the highest net value added in the Global universe over the past 24 years was Non-US Stock.



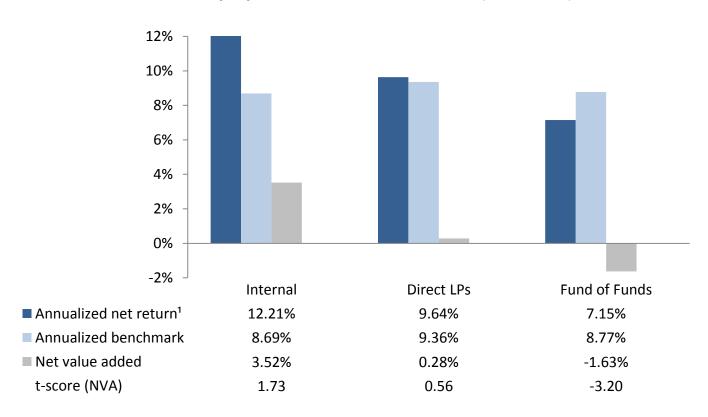
<sup>1.</sup> Hedge Fund gross value added performance reflect data for the 15 year period from 2000 to 2014.

<sup>2.</sup> The net value added calculation for private equity uses the average benchmark of all Global participants.

<sup>3.</sup> Value added analysis is from 7,124 annual fund performance observations from the CEM Global universe for the 24-year period ending 2014. Value added reflects the asset weighted value added of all mandates in each asset category including indexed holdings. Averages shown above are the arithmetic average of the annual averages of all observations of funds with holdings in the asset category for each year.

## Costs matter - Lower cost internal investment in private equity outperformed direct LPs. Direct LPs outperformed fund of funds.

#### Private equity net returns and value added (1996-2012)

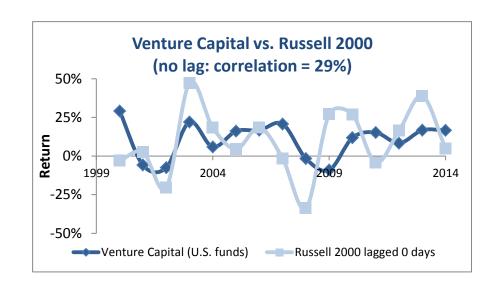


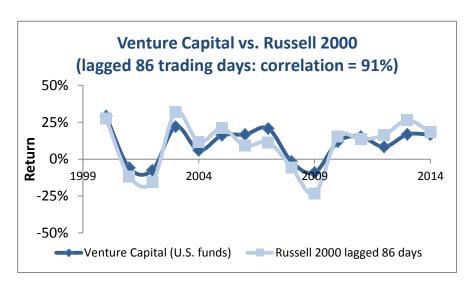
<sup>1.</sup> To compare the performance of private equity implementation styles over long periods, Monte Carlo simulations were used to capture differences in risk between styles. For details, see "How Implementation Style and Costs Affect Private Equity Performance", Alex Beath, Chris Flynn, and Jody MacIntosh, International Journal of Pension Management pp. 50, vol. 7, issue 1, Spring 2014.

### Private equity benchmarks used by most funds are flawed.

A high proportion of the benchmarks used for illiquid assets by participants in the CEM universe are flawed. Flaws include:

- Timing mismatches due to lagged reporting. For example, as the graphs on the right demonstrate, reported venture capital returns clearly lag the returns of stock indices. Yet most funds that use stock indices to benchmark their private equity do not use lagged benchmarks. The result is substantial noise when interpreting performance. For example, for 2008 the Russell 2000 index return was -33.8% versus -5.6% if lagged 86 trading days. Thus if a fund earned the average reported venture capital return for 2008 of -1.6%, they would have mistakenly believed that their value added from venture capital was 32.2% using the un-lagged benchmarks versus 4.0% using the same benchmark lagged to matched the average 86 day reporting lag of venture capital funds.
- Un-investable peer-based benchmarks. Peer based benchmarks reflect the reporting lags in peer portfolios so they have much better correlations than un-lagged investable benchmarks. But their relationship statistics are not as good as for lagged investable benchmarks.
- Aspirational premiums (i.e., benchmark + 2%). Premiums cannot be achieved passively, and evidence suggests that a fund has to be substantially better than average to attain them. More importantly, when comparing performance to other funds, they need to be excluded to ensure a level playing field.





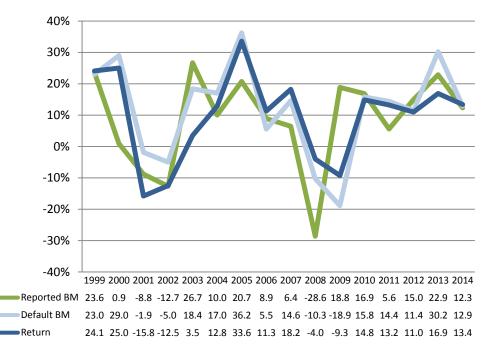
### To enable fairer comparisons, CEM uses default private equity benchmarks.

Benchmarks used for private equity by most participants in the CEM universe are flawed (see previous page). So to enable fairer comparisons, CEM replaced the reported private equity benchmarks of all funds except yours with defaults. The defaults are:

- Investable. They are comprised of lagged small cap benchmarks.
- Custom lagged for each participant. Different portfolios had different lags. CEM estimated the lag on private equity portfolios by comparing annual private equity returns to public market proxies with 1 day of lag, 2 days of lag, 3 days of lag, etc. At some number of days lag, correlation between the two series is maximized. The median lag was 94 trading days (i.e., approximately 132 calendar days or 4.3 calendar months)
- Regional mix adjusted based on the average estimated mix of regions in private equity portfolios for a given country.

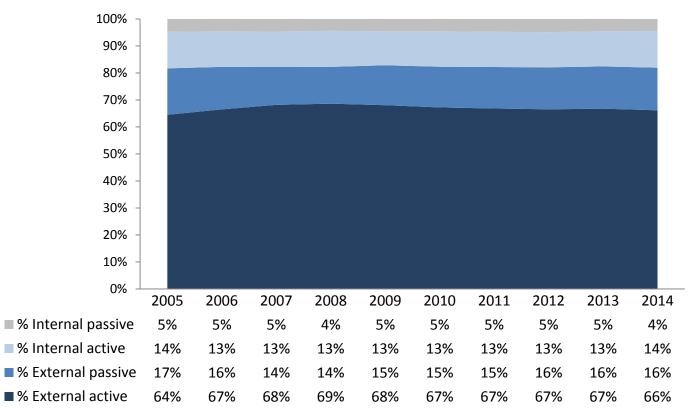
The result is the default benchmarks are superior to most self-reported benchmarks. Correlations improve to a median of 82% for the default benchmarks versus 43% for self-reported benchmarks. Other statistics such as volatility were also much better.

#### Private equity returns versus reported and default benchmark returns - Global median



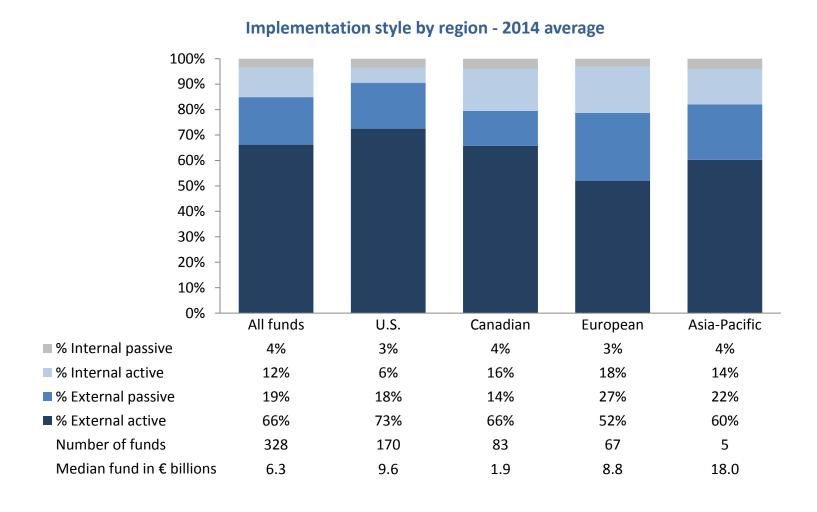
## For global plans, external active management increased from 64% to 66% over the past 10 years.



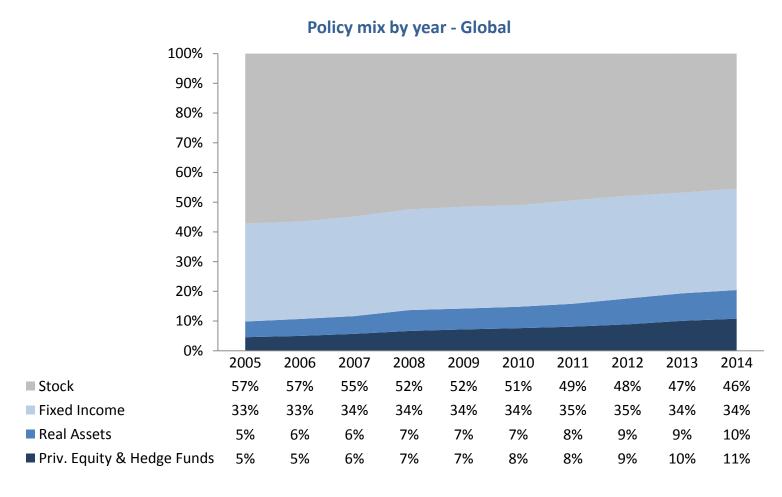


<sup>•</sup> This analysis is based on 117 global funds with 10 consecutive years of data.

## European funds have less externally managed active assets than funds in most other regions.

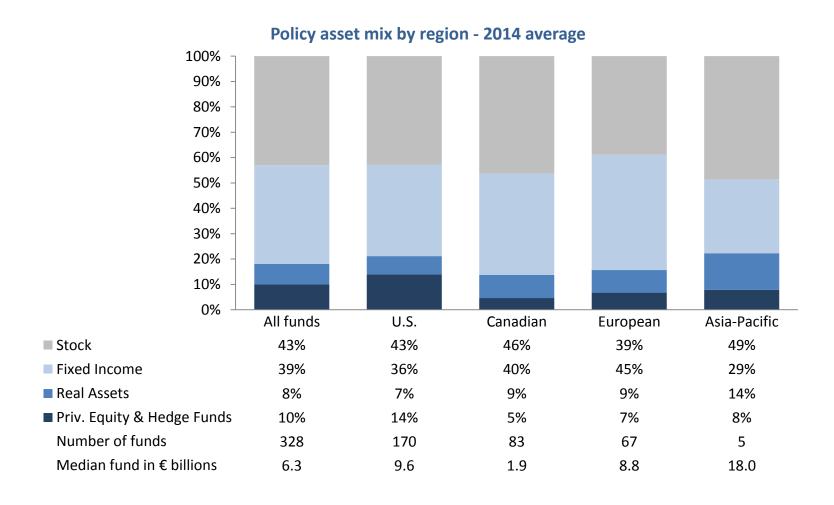


## For Global plans, combined policy weights for real assets, private equity and hedge funds increased from 9.8% in 2005 to 20.4% in 2014.



<sup>•</sup> This analysis is based on 117 global funds with 10 consecutive years of data.

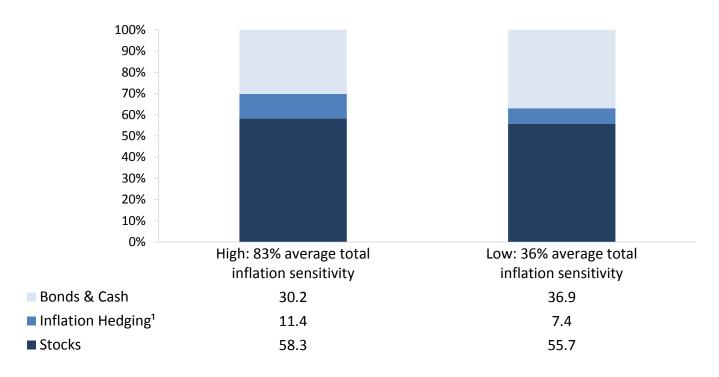
## European funds have more fixed income.



### Impact of inflation sensitivity on policy asset mix decisions

One would expect plans with more inflation sensitivity to have more inflation hedging assets and fewer nominal bonds than plans with less inflation sensitivity. Although this is true, the difference is small: inflation hedging assets represent 11.4% of assets at plans with high inflation sensitivity versus 7.4% at plans with lower inflation sensitivity.

Average policy asset mix: Plans with above vs. below average inflation sensitivity

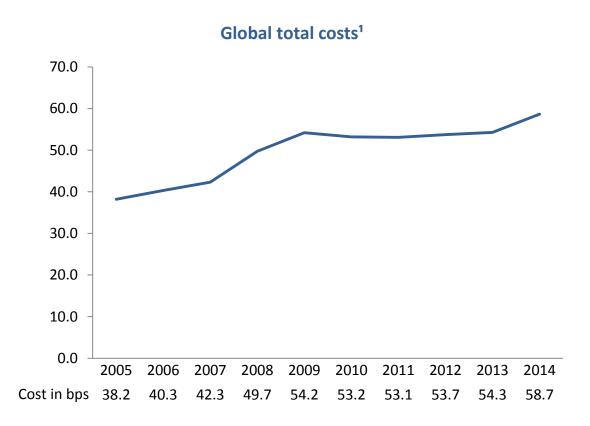


<sup>1.</sup> Inflation hedge assets include inflation-indexed bonds, commodities, real estate & REITs, infrastructure and natural resources.

## Global fund costs have grown by 20 basis points on average over the last 10 years.

#### Reasons for the increase in costs include:

- Allocation to the more expensive asset classes - hedge funds, real assets and private equity-increased from 4% to 9% on average.
- Use of the most expensive implementation style, external active management, increased from 64% to 66% on average.



<sup>1.</sup> This analysis is based on 117 global funds with 10 consecutive years of data.

### U.S. defined benefit plans have outperformed defined contribution plans.

### U.S. defined benefit plans have outperformed defined contribution plans.

Differences in asset mix have been the primary reason for the outperformance of U.S. defined benefit plans.

n/a= insufficient data.

#### DB versus DC return and value added - U.S.

|                              | 18-yr average ending 2014 <sup>2</sup> |       |       |  |  |
|------------------------------|--|-------|-------|--|--|
|                              | DB DC Difference                       |       |       |  |  |
| Total return                 | 8.31%                                  | 6.88% | 1.43% |  |  |
| - Policy return <sup>1</sup> | 7.74%                                  | 6.46% | 1.28% |  |  |
| - Costs                      | 0.49%                                  | 0.40% | 0.09% |  |  |
| = Net value added            | 0.08%                                  | 0.01% | 0.07% |  |  |
| Number of observations       | 3,233                                  | 2,143 |       |  |  |

#### DB versus DC asset mix - U.S.

| Asset class                   | Asset mix <sup>3</sup> |       | Returns |      |
|-------------------------------|------------------------|-------|---------|------|
| (Ranked by returns)           | DB                     | DC    | DB      | DC   |
| Private Equity                | 4%                     | n/a   | 11.6%   | n/a  |
| Real Assets                   | 5%                     | n/a   | 10.2%   | n/a  |
| Small Cap Stock               | 6%                     | 8%    | 9.4%    | 9.8% |
| Employer Stock                | 0%                     | 20%   | n/a     | 8.6% |
| Fixed Income                  | 31%                    | 10%   | 8.1%    | 6.1% |
| Hedge Funds                   | 2%                     | n/a   | 8.2%    | n/a  |
| Stock U.S. Large Cap or Broad | 26%                    | 30%   | 7.0%    | 7.9% |
| Stock Non U.S. or Global      | 23%                    | 8%    | 5.1%    | 6.6% |
| Stable Value/GICs             | n/a                    | 17%   | n/a     | 4.6% |
| Cash                          | 2%                     | 8%    | 3.2%    | 2.9% |
| Total                         | 100%                   | 100%  | 8.3%    | 6.9% |
| Number of observations        | 3,233                  | 2,143 |         |      |

<sup>1.</sup> DC policy return = weights of holdings X benchmarks

<sup>2.</sup> Returns are the geometric average of annual averages.

<sup>3. 18</sup> years ending 2014. Equals arithmetic average of annual asset mix weights.

<sup>4. 18</sup> years from 1997 to 2014. Returns are the geometric average of the annual averages for each asset class. Hedge funds were not treated as a separate asset class until 2000, so 60% stock, 40% bond returns were used as a proxy for 1997-1999.

# 3

# **Description of peer group and universe**

| Peer group                                       | 2 |
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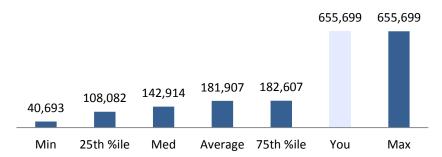
#### Peer group

Your peer group is comprised of 16 global funds, with assets ranging from €40.7 billion to €655.7 billion versus your €655.7 billion. The median size is €142.9 billion.

Size is the primary criteria for choosing your peer group, because size greatly impacts how much you pay for services. Generally, the larger your fund, the smaller your unit operating costs (i.e., the economies of scale impact).

#### **Peer group for Norwegian Government Pension Fund Global**



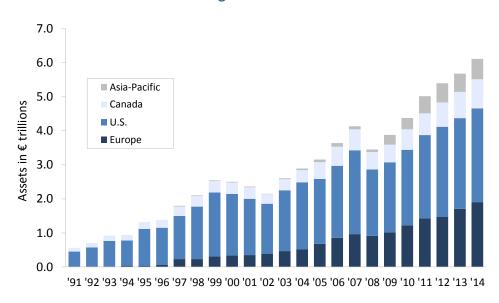


#### **CEM** global universe

CEM has been providing investment benchmarking solutions since 1991. The 2014 survey universe is comprised of 328 funds representing €6.1 trillion in assets. The breakdown by region is as follows:

- 170 U.S. pension funds with aggregate assets of €2.8 trillion.
- 83 Canadian pension funds with aggregate assets of €855 billion.
- 67 European pension funds with aggregate assets of €1.9 trillion. Included are funds from The Netherlands, Norway, Sweden, Finland, Denmark, UK, and Ireland.
- 8 Asia-Pacific pension funds with aggregate assets of €593 billion.

#### **CEM** global universe



#### **Universe subsets**

CEM's global survey universe is comprised of 328 funds with total assets of €6.1 trillion. Your fund's returns and costs are compared to the following two subsets of the global universe:

- Peers Your peer group is comprised of 16 Global funds ranging in size from €40.7 €655.7 billion. The peer median of €142.9 billion compares to your €655.7 billion.
- Global The global universe is comprised of 328 funds ranging in size from €0.0 €655.7 billion. The median fund is €4.2 billion.

### Universe subsets by number of funds and assets

|                 |                       |       | Global | by type |       |       | Glob   | al by Cou | ntry    |       |
|-----------------|-----------------------|-------|--------|---------|-------|-------|--------|-----------|---------|-------|
|                 |                       |       |        |         |       |       |        |           | Asia-   |       |
| Pe              | er group <sup>1</sup> | Corp. | Public | Other   | Total | U.S.  | Canada | Europe    | Pacific | Total |
| # of funds      |                       |       |        |         |       |       |        |           |         |       |
| 2014            | 16                    | 159   | 114    | 49      | 328   | 170   | 83     | 67        | 8       | 328   |
| 2013            | 16                    | 186   | 126    | 56      | 374   | 191   | 90     | 86        | 7       | 374   |
| 2012            | 16                    | 190   | 135    | 54      | 381   | 202   | 89     | 78        | 12      | 381   |
| 2011            | 16                    | 198   | 113    | 70      | 381   | 205   | 88     | 76        | 12      | 381   |
| 2010            | 14                    | 180   | 120    | 66      | 367   | 207   | 96     | 55        | 9       | 367   |
| # of funds with | <u>1</u>              |       |        |         |       |       |        |           |         |       |
| uninterrupted   | data for:             |       |        |         |       |       |        |           |         |       |
| 1 yr            | 16                    | 159   | 114    | 49      | 322   | 170   | 83     | 67        | 8       | 328   |
| 2 yrs           | 16                    | 147   | 100    | 43      | 290   | 153   | 77     | 56        | 6       | 292   |
| 3 yrs           | 16                    | 134   | 93     | 37      | 264   | 146   | 72     | 40        | 6       | 264   |
| 4 yrs           | 16                    | 118   | 82     | 33      | 233   | 141   | 63     | 23        | 6       | 233   |
| 5 yrs           | 14                    | 107   | 76     | 31      | 214   | 129   | 61     | 20        | 4       | 214   |
| 6 yrs           | 13                    | 100   | 70     | 26      | 196   | 121   | 56     | 15        | 4       | 196   |
| Total assets (€ | billions)             |       |        |         |       |       |        |           |         |       |
| 2014            | 2,911                 | 1,089 | 4,245  | 692     | 6,110 | 2,757 | 855    | 1,904     | 593     | 6,110 |
| 2013            | 2,614                 | 1,061 | 3,887  | 625     | 5,680 | 2,667 | 767    | 1,708     | 539     | 5,680 |
| 2012            | 2,379                 | 1,066 | 3,887  | 558     | 5,396 | 2,652 | 710    | 1,470     | 565     | 5,396 |
| 2011            | 2,071                 | 1,052 | 3,447  | 516     | 5,015 | 2,446 | 641    | 1,428     | 501     | 5,015 |
| 2010            | 1,729                 | 915   | 3,024  | 440     | 4,378 | 2,218 | 603    | 1,222     | 335     | 4,378 |
| 2014 asset dist | ribution              |       |        |         |       |       |        |           |         |       |
| (€ billions)    |                       |       |        |         |       |       |        |           |         |       |
| Avg             | 181.9                 | 6.8   | 37.2   | 14.1    | 18.6  | 16.2  | 10.3   | 28.4      | 74.1    | 18.6  |
| Max             | 655.7                 |       |        |         | 655.7 |       |        |           |         | 655.7 |
| 75th %ile       | 182.6                 |       |        |         | 13.6  |       |        |           |         | 13.6  |
| Median          | 142.9                 |       |        |         | 4.2   |       |        |           |         | 4.2   |
| 25th %ile       | 108.1                 |       |        |         | 1.6   |       |        |           |         | 1.6   |
| Min             | 40.7                  |       |        |         | 0.0   |       |        |           |         | 0.0   |

<sup>1.</sup> Peer group statistics are for your 2014 peer group only as your peer group may have included different funds in prior years.

# Implementation style, actual mix and policy mix by universe subset

Implementation style, actual mix and policy mix - 2014 (as a % of year-end assets)

|                         |              |             |            | Global     | by type    |            |            | Glob       | oal by Cou | intry      |            |
|-------------------------|--------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                         | Your         | Peer        |            |            |            |            |            |            |            | Asia-      |            |
|                         | fund¹        | group       | Corp.      | Public     | Other      | Total      | U.S.       | Canada     | Europe     | Pacific    | Total      |
|                         |              |             |            |            |            |            |            |            |            |            |            |
| <u>Implementation</u> s | <u>style</u> |             |            |            |            |            |            |            |            |            |            |
| External active         | 4.1          | 34.6        | 67.2       | 57.0       | 62.8       | 63.0       | 68.8       | 64.3       | 47.9       | 52.9       | 63.0       |
| Fund of funds           | 0.0          | 2.5         | 3.5        | 2.8        | 3.6        | 3.2        | 3.8        | 1.5        | 4.2        | 2.1        | 3.2        |
| External passive        | 0.0          | 9.3         | 20.0       | 16.0       | 20.2       | 18.6       | 18.0       | 13.7       | 26.7       | 15.6       | 18.6       |
| Internal active         | 95.9         | 35.3        | 6.8        | 18.5       | 11.8       | 11.6       | 5.9        | 16.5       | 18.3       | 26.1       | 11.6       |
| Internal passive        | 0.0          | <u>18.2</u> | <u>2.5</u> | <u>5.7</u> | <u>1.6</u> | <u>3.5</u> | <u>3.5</u> | <u>4.0</u> | <u>3.0</u> | <u>3.3</u> | <u>3.5</u> |
| Total                   | 100.0        | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |
|                         |              |             |            |            |            |            |            |            |            |            |            |
| Actual asset mix        |              |             |            |            |            |            |            |            |            |            |            |
| Stock                   | 61.2         | 44.7        | 39.1       | 50.4       | 39.7       | 43.4       | 42.7       | 47.7       | 39.8       | 42.1       | 43.4       |
| Fixed income            | 37.4         | 32.2        | 46.2       | 27.9       | 42.5       | 39.0       | 36.6       | 39.0       | 45.3       | 39.0       | 39.0       |
| Global TAA              | 0.0          | 0.4         | 2.2        | 2.1        | 1.6        | 2.0        | 2.8        | 1.0        | 1.6        | 1.8        | 2.0        |
| Real assets             | 1.4          | 12.5        | 4.8        | 10.2       | 9.6        | 7.4        | 6.7        | 8.1        | 8.0        | 10.6       | 7.4        |
| Hedge funds             | 0.0          | 2.7         | 4.5        | 3.4        | 3.6        | 4.0        | 5.6        | 1.8        | 2.7        | 3.1        | 4.0        |
| Private equity          | 0.0          | <u>7.5</u>  | <u>3.3</u> | <u>5.9</u> | 3.0        | <u>4.1</u> | <u>5.6</u> | <u>2.4</u> | <u>2.5</u> | <u>3.4</u> | <u>4.1</u> |
| Total                   | 100.0        | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |
| Policy asset mix        |              |             |            |            |            |            |            |            |            |            |            |
| Stock                   | 61.1         | 44.2        | 39.3       | 49.1       | 39.4       | 43.0       | 42.9       | 46.3       | 38.9       | 45.9       | 43.0       |
| Fixed income            | 36.7         | 31.4        | 46.0       | 27.9       | 42.1       | 38.9       | 35.9       | 40.0       | 45.5       | 34.1       | 38.9       |
| Global TAA              | 0.0          | 0.3         | 1.9        | 2.2        | 1.4        | 1.9        | 2.5        | 0.9        | 1.7        | 1.8        | 1.9        |
| Real assets             | 2.2          | 14.1        | 5.0        | 11.6       | 10.7       | 8.1        | 7.2        | 9.1        | 8.8        | 12.4       | 8.1        |
| Hedge funds             | 0.0          | 2.7         | 4.4        | 2.9        | 3.3        | 3.7        | 5.4        | 1.3        | 2.6        | 2.0        | 3.7        |
| Private equity          | 0.0          | <u>7.4</u>  | 3.4        | 6.4        | 3.1        | 4.4        | 6.1        | 2.4        | 2.5        | 3.9        | 4.4        |
| Total                   | 100.0        | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |

<sup>1.</sup> Due to the fact that your fund provided average assets, the above tables show your implementation style and asset mix using average assets rather than year-end.

# Implementation style, actual mix and policy mix trends

### Implementation style, actual mix and policy mix - 2010 to 2014

(as a % of year-end assets)

|                           |      | Yo   | ur fun | d¹    |       |             | Pee         | r avera     | ge²         |             |            | Glob       | al aver    | age²       |            |
|---------------------------|------|------|--------|-------|-------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|
| 201                       | 4 20 | 013  | 2012   | 2011  | 2010  | 2014        | 2013        | 2012        | 2011        | 2010        | 2014       | 2013       | 2012       | 2011       | 2010       |
|                           |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| Implementation style      |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| External active 4         | 1    | 3.7  | 3.8    | 6.7   | 12.3  | 36.8        | 46.5        | 46.5        | 46.0        | 41.7        | 66.1       | 66.9       | 66.9       | 67.0       | 67.4       |
| External passive 0        | 0    | 0.0  | 0.0    | 0.0   | 0.0   | 8.4         | 7.9         | 7.3         | 7.8         | 7.7         | 17.5       | 17.0       | 17.0       | 16.8       | 16.3       |
| Internal active 95        | 9 9  | 96.3 | 96.2   | 93.3  | 87.7  | 38.5        | 28.4        | 28.9        | 29.1        | 34.7        | 12.6       | 11.4       | 11.4       | 11.6       | 12.2       |
| Internal passive <u>0</u> | 0    | 0.0  | 0.0    | 0.0   | 0.0   | <u>16.3</u> | <u>17.1</u> | <u>17.2</u> | <u>17.1</u> | <u>15.8</u> | <u>3.9</u> | <u>4.6</u> | <u>4.7</u> | <u>4.7</u> | <u>4.2</u> |
| Total 100                 | 0 10 | 0.00 | 100.0  | 100.0 | 100.0 | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |
|                           |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| Actual asset mix          |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| Stock 61                  | 2 6  | 62.7 | 60.2   | 59.6  | 61.0  | 43.6        | 43.6        | 42.1        | 43.4        | 45.8        | 43.0       | 45.6       | 44.2       | 44.6       | 48.7       |
| Fixed income 37           | 4 3  | 36.4 | 39.4   | 40.2  | 39.0  | 33.4        | 32.8        | 34.0        | 33.0        | 31.8        | 38.0       | 35.8       | 37.5       | 37.7       | 35.8       |
| Global TAA 0              | 0    | 0.0  | 0.0    | 0.0   | 0.0   | 0.2         | 0.2         | 0.1         | 0.1         | 0.2         | 1.9        | 1.8        | 1.7        | 1.5        | 1.0        |
| Real assets 1             | 4    | 0.9  | 0.4    | 0.2   | 0.0   | 13.0        | 13.2        | 13.1        | 13.0        | 12.3        | 7.9        | 7.8        | 7.8        | 7.2        | 6.3        |
| Hedge funds 0             | 0    | 0.0  | 0.0    | 0.0   | 0.0   | 2.3         | 2.7         | 2.6         | 2.5         | 2.4         | 4.3        | 4.1        | 3.7        | 3.8        | 3.4        |
| Private equity <u>0</u>   | 0    | 0.0  | 0.0    | 0.0   | 0.0   | <u>7.5</u>  | <u>7.6</u>  | 8.0         | <u>8.1</u>  | <u>7.6</u>  | <u>4.8</u> | 4.8        | <u>5.0</u> | <u>5.1</u> | <u>4.9</u> |
| Total 100                 | 0 10 | 0.00 | 100.0  | 100.0 | 100.0 | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |
|                           |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| Policy asset mix          |      |      |        |       |       |             |             |             |             |             |            |            |            |            |            |
| Stock 61                  | 1 6  | 60.9 | 60.9   | 58.7  | 61.4  | 45.0        | 44.5        | 44.9        | 47.5        | 49.6        | 42.6       | 44.5       | 45.6       | 46.6       | 48.7       |
| Fixed income 36           | 7 3  | 38.1 | 38.4   | 41.0  | 38.6  | 33.2        | 33.3        | 33.2        | 32.7        | 31.8        | 38.0       | 37.0       | 37.1       | 37.0       | 36.2       |
| Global TAA 0              | 0    | 0.0  | 0.0    | 0.0   | 0.0   | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         | 1.8        | 1.8        | 1.5        | 1.3        | 0.7        |
| Real assets 2             | 2    | 1.0  | 0.7    | 0.3   | 0.0   | 12.8        | 12.8        | 12.5        | 11.2        | 11.0        | 8.4        | 8.0        | 7.6        | 7.0        | 6.7        |
| Hedge funds 0             | 0    | 0.0  | 0.0    | 0.0   | 0.0   | 2.3         | 2.7         | 2.8         | 2.3         | 1.9         | 4.0        | 3.6        | 3.3        | 3.3        | 3.0        |
| Private equity <u>0</u>   | 0    | 0.0  | 0.0    | 0.0   | 0.0   | <u>6.7</u>  | <u>6.7</u>  | <u>6.7</u>  | 6.2         | <u>5.7</u>  | <u>5.1</u> | <u>5.1</u> | <u>4.9</u> | <u>4.8</u> | <u>4.7</u> |
| Total 100                 | 0 10 | 0.00 | 100.0  | 100.0 | 100.0 | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0      | 100.0      | 100.0      | 100.0      | 100.0      |

<sup>1.</sup> Due to the fact that your fund provided average assets, the above tables show your trend in implementation style and asset mix using average assets rather than year-end.

<sup>2.</sup> Trends are based on the 214 Global and 14 peer funds with 5 consecutive years of data ending 2014.

# Implementation style by asset class

Implementation style impacts your costs, because external active management tends to be more expensive than internal or passive (or indexed) management and fund-of-funds usage is more expensive than direct fund investment.

### Implementation style by asset class - 2014

(as a % of average assets)

|                                  |        | Yo     | ur func | l %    |       |        | Peer   | avera | ge %   |       |        | Globa  | ıl avera | age %  |       |
|----------------------------------|--------|--------|---------|--------|-------|--------|--------|-------|--------|-------|--------|--------|----------|--------|-------|
|                                  | Е      | xterna | I       | Inte   | rnal  | Е      | xterna | l     | Inte   | rnal  | Е      | xterna | l        | Inte   | rnal  |
|                                  | Active | FOFs   | Index   | Active | Index | Active | FOFs   | Index | Active | Index | Active | FOFs   | Index    | Active | Index |
| Stock - U.S.                     |        |        |         |        |       | 21.1   |        | 20.7  | 6.1    | 52.1  | 47.6   |        | 40.1     | 5.3    | 7.0   |
| Stock - EAFE                     |        |        |         |        |       | 35.0   |        | 22.6  | 24.2   | 18.1  | 57.2   |        | 28.0     | 10.8   | 4.1   |
| Stock - ACWIxU.S.                |        |        |         |        |       | 20.5   |        | 79.5  | 0.0    | 0.0   | 64.6   |        | 35.0     | 0.4    | 0.0   |
| Stock - Emerging                 |        |        |         |        |       | 56.9   |        | 8.9   | 15.7   | 18.4  | 80.5   |        | 11.7     | 3.0    | 4.9   |
| Stock - Global                   | 6.4    |        | 0.0     | 93.6   | 0.0   | 32.3   |        | 12.6  | 46.3   | 8.8   | 68.2   |        | 17.5     | 12.5   | 1.8   |
| Stock - Other                    |        |        |         |        |       | 33.6   |        | 11.0  | 37.7   | 17.8  | 71.9   |        | 8.8      | 13.5   | 5.8   |
| Total Stock                      | 6.4    |        | 0.0     | 93.6   | 0.0   | 32.3   |        | 16.3  | 27.5   | 23.9  | 60.2   |        | 26.9     | 8.3    | 4.5   |
| Fixed Income - US                |        |        |         |        |       | 32.7   |        | 0.7   | 31.9   | 34.7  | 65.5   |        | 14.5     | 15.7   | 4.4   |
| Fixed Income - EAFE              |        |        |         |        |       | 23.8   |        | 0.0   | 72.5   | 3.7   | 27.8   |        | 48.0     | 22.2   | 2.0   |
| Fixed Income - Emerging          |        |        |         |        |       | 87.4   |        | 0.0   | 12.6   | 0.0   | 90.9   |        | 1.3      | 7.7    | 0.2   |
| Fixed Income - Global            | 0.5    |        | 0.0     | 99.5   | 0.0   | 26.4   |        | 1.5   | 72.1   | 0.0   | 65.9   |        | 4.9      | 26.8   | 2.3   |
| Fixed Income - Inflation Indexed |        |        |         |        |       | 8.0    |        | 34.2  | 23.5   | 34.3  | 16.6   |        | 43.3     | 15.0   | 25.2  |
| Fixed Income - High Yield        |        |        |         |        |       | 93.1   |        | 0.0   | 6.8    | 0.1   | 88.8   |        | 2.9      | 8.2    | 0.0   |
| Fixed Income - Mortgages         |        |        |         |        |       | 18.2   |        | 0.0   | 78.1   | 3.7   | 78.0   |        | 0.9      | 20.2   | 0.9   |
| Fixed Income - Private Debt      |        |        |         |        |       | 51.3   |        | 0.0   | 48.7   | 0.0   | 79.5   |        | 0.0      | 20.5   | 0.0   |
| Fixed Income - Other             |        |        |         |        |       | 9.0    |        | 0.1   | 57.8   | 33.0  | 70.6   |        | 15.2     | 11.5   | 2.7   |
| Cash                             |        |        |         |        |       | 78.0   |        | 0.0   | 22.0   | 0.0   | 54.1   |        | 0.0      | 45.9   | 0.0   |
| Total Fixed Income               | 0.5    |        | 0.0     | 99.5   | 0.0   | 22.5   |        | 5.9   | 50.1   | 21.4  | 61.7   |        | 17.9     | 16.6   | 3.8   |
| Commodities                      |        |        |         |        |       | 7.7    |        | 0.6   | 51.6   | 40.1  | 74.8   |        | 7.6      | 10.3   | 7.2   |
| Infrastructure                   |        |        | n/a     |        | n/a   | 31.1   | 5.4    | n/a   | 63.5   | n/a   | 71.2   | 6.5    | n/a      | 22.3   | n/a   |
| Natural Resources                |        |        | n/a     |        | n/a   | 40.2   | 0.0    | n/a   | 59.8   | n/a   | 79.9   | 2.8    | n/a      | 17.3   | n/a   |
| REITs                            |        |        |         |        |       | 17.2   | 0.0    | 0.0   | 82.8   | 0.0   | 77.2   | 0.0    | 8.7      | 11.2   | 2.9   |
| Real Estate ex-REITs             | 0.0    | 0.0    | n/a     | 100.0  | n/a   | 55.1   | 4.9    | n/a   | 40.0   | 0.0   | 75.7   | 7.4    | n/a      | 16.9   | 0.0   |
| Other Real Assets                |        |        | n/a     |        | n/a   | 79.9   | 0.0    | n/a   | 20.1   | n/a   | 91.1   | 0.0    | n/a      | 8.9    | n/a   |
| Total Real Assets                | 0.0    | 0.0    | 0.0     | 100.0  | 0.0   | 46.5   | 0.0    | 0.1   | 49.5   | 3.9   | 81.8   | 0.0    | 1.1      | 16.5   | 0.6   |
| Hedge Funds                      |        |        | n/a     |        | n/a   | 73.2   | 26.8   | n/a   | 0.0    | n/a   | 56.3   | 43.7   | n/a      | 0.0    | n/a   |
| Global TAA                       |        |        | n/a     |        | n/a   | 75.2   | 0.0    | n/a   | 24.8   | n/a   | 91.7   | 0.0    | n/a      | 8.3    | n/a   |
| Diversified Private Equity       |        |        | n/a     |        | n/a   | 60.8   | 21.9   | n/a   | 17.3   | n/a   | 64.9   | 31.6   | n/a      | 3.5    | n/a   |
| Venture Capital                  |        |        | n/a     |        | n/a   | 43.7   | 54.8   | n/a   | 1.5    | n/a   | 66.1   | 33.0   | n/a      | 0.9    | n/a   |
| LBO                              |        |        | n/a     |        | n/a   | 74.9   | 3.9    | n/a   | 21.2   | n/a   | 90.5   | 5.3    | n/a      | 4.2    | n/a   |
| Other Private Equity             |        |        | n/a     |        | n/a   | 99.0   | 0.0    | n/a   | 1.0    | n/a   | 84.9   | 0.0    | n/a      | 15.1   | n/a   |
| Total Private Equity             |        |        | n/a     |        | n/a   | 71.2   | 14.6   | n/a   | 14.3   | n/a   | 76.0   | 20.8   | n/a      | 3.2    | n/a   |
| Total Fund - Avg. Holdings       | 4.1    | 0.0    | 0.0     | 95.9   | 0.0   | 34.7   | 2.5    | 9.4   | 35.3   | 18.1  | 63.0   | 3.2    | 18.8     | 11.3   | 3.7   |

### **Actual mix**

### Actual asset mix - 2010 to 2014

(as a % of year-end assets)

|                                  |       | You   | ur fund | % <sup>1</sup> |       |       | Peei  | r averag | ge %  |       |      | Globa | al avera | age % |      |
|----------------------------------|-------|-------|---------|----------------|-------|-------|-------|----------|-------|-------|------|-------|----------|-------|------|
|                                  | 2014  | 2013  | 2012    | 2011           | 2010  | 2014  | 2013  | 2012     | 2011  | 2010  | 2014 | 2013  | 2012     | 2011  | 2010 |
| Stock - U.S.                     |       |       |         |                |       | 12.1  | 12.4  | 11.7     | 11.4  | 11.2  | 15.0 | 16.3  | 16.9     | 17.6  | 20.6 |
| Stock - EAFE                     |       |       |         |                |       | 6.8   | 7.4   | 7.3      | 8.5   | 9.6   | 7.3  | 8.3   | 8.5      | 8.0   | 9.1  |
| Stock - ACWIxU.S.                |       |       |         |                |       | 0.4   | 0.4   | 0.4      | 0.3   |       | 2.9  | 3.1   | 2.9      | 2.4   | 3.0  |
| Stock - Emerging                 |       |       |         |                |       | 4.6   | 4.6   | 4.6      | 3.7   | 3.3   | 3.0  | 3.1   | 3.0      | 2.6   | 2.4  |
| Stock - Global                   | 61.2  | 62.7  | 60.2    | 59.6           | 61.0  | 15.6  | 13.9  | 12.9     | 13.7  | 15.2  | 10.1 | 9.7   | 8.3      | 6.9   | 7.3  |
| Stock - Other                    |       |       |         |                |       | 5.3   | 5.7   | 5.7      | 5.5   | 6.4   | 5.0  | 5.3   | 5.5      | 5.5   | 6.8  |
| Total Stock                      | 61.2  | 62.7  | 60.2    | 59.6           | 61.0  | 44.7  | 44.3  | 42.7     | 43.1  | 45.8  | 43.4 | 45.8  | 45.1     | 43.0  | 49.2 |
| Fixed Income - US                |       |       |         |                |       | 5.0   | 5.1   | 5.7      | 5.6   | 5.2   | 6.6  | 6.9   | 8.1      | 8.3   | 9.6  |
| Fixed Income - EAFE              |       |       |         |                |       | 2.8   | 2.7   | 2.6      | 2.3   | 2.9   | 4.0  | 4.5   | 3.0      | 5.5   | 3.5  |
| Fixed Income - Emerging          |       |       |         |                |       | 1.1   | 1.1   | 0.9      | 0.5   | 0.2   | 1.2  | 1.2   | 1.0      | 0.9   | 0.6  |
| Fixed Income - Global            | 37.4  | 36.4  | 39.4    | 40.2           | 39.0  | 5.5   | 5.7   | 5.9      | 6.3   | 6.1   | 2.5  | 2.7   | 3.1      | 3.0   | 2.4  |
| Fixed Income - Inflation Indexed |       |       |         |                |       | 4.8   | 4.9   | 4.9      | 4.6   | 4.0   | 2.0  | 1.9   | 2.3      | 2.5   | 2.3  |
| Fixed Income - High Yield        |       |       |         |                |       | 0.6   | 0.6   | 0.8      | 0.7   | 0.8   | 1.4  | 1.5   | 1.4      | 1.4   | 1.3  |
| Fixed Income - Mortgages         |       |       |         |                |       | 0.8   | 0.8   | 0.9      | 0.9   | 1.1   | 0.3  | 0.3   | 0.4      | 0.4   | 0.6  |
| Fixed Income - Private Debt      |       |       |         |                |       | 0.3   | 0.3   | 0.3      | 0.2   | 0.1   | 0.3  | 0.2   | 0.1      | 0.0   | 0.0  |
| Fixed Income - Other             |       |       |         |                |       | 8.8   | 9.2   | 9.5      | 9.5   | 10.9  | 18.0 | 15.4  | 15.8     | 16.4  | 14.7 |
| Cash                             |       |       |         |                |       | 2.5   | 1.3   | 1.6      | 1.1   | 0.4   | 2.6  | 2.5   | 2.8      | 2.5   | 2.2  |
| Total Fixed Income               | 37.4  | 36.4  | 39.4    | 40.2           | 39.0  | 32.2  | 31.8  | 33.1     | 31.7  | 31.8  | 39.0 | 37.2  | 38.0     | 41.1  | 36.9 |
| Commodities                      |       |       |         |                |       | 1.2   | 1.4   | 1.4      | 1.5   | 1.4   | 0.4  | 0.6   | 0.6      | 0.6   | 0.6  |
| Infrastructure                   |       |       |         |                |       | 2.6   | 2.6   | 2.5      | 2.5   | 2.6   | 1.0  | 0.8   | 0.8      | 0.8   | 0.6  |
| Natural Resources                |       |       |         |                |       | 0.5   | 0.6   | 0.6      | 1.0   | 0.1   | 0.3  | 0.3   | 0.3      | 0.3   | 0.2  |
| REITs                            |       |       |         |                |       | 0.9   | 0.9   | 1.0      | 1.0   | 1.2   | 0.6  | 0.5   | 0.5      | 0.6   | 0.6  |
| Real Estate ex-REITs             | 1.4   | 0.9   | 0.4     | 0.2            |       | 7.1   | 7.2   | 7.2      | 7.2   | 7.0   | 4.9  | 4.8   | 4.7      | 4.5   | 3.9  |
| Other Real Assets                |       |       |         |                |       | 0.2   | 0.2   | 0.2      | 0.5   | 0.1   | 0.3  | 0.3   | 0.3      | 0.3   | 0.2  |
| Total Real Assets                | 1.4   | 0.9   | 0.4     | 0.2            |       | 12.5  | 12.8  | 12.8     | 13.7  | 12.3  | 7.4  | 7.2   | 7.2      | 7.0   | 6.1  |
| Hedge Funds                      |       |       |         |                |       | 2.7   | 3.0   | 2.9      | 3.0   | 2.4   | 4.0  | 3.9   | 3.6      | 3.4   | 3.0  |
| Global TAA                       |       |       |         |                |       | 0.4   | 0.5   | 0.5      | 0.4   | 0.2   | 2.0  | 1.9   | 2.0      | 1.3   | 0.9  |
| Div. Private Equity              |       |       |         |                |       | 5.0   | 5.1   | 5.5      | 5.5   | 4.9   | 3.1  | 3.2   | 3.4      | 3.4   | 3.1  |
| Venture Capital                  |       |       |         |                |       | 0.3   | 0.3   | 0.3      | 0.3   | 0.3   | 0.2  | 0.2   | 0.2      | 0.2   | 0.2  |
| LBO                              |       |       |         |                |       | 1.9   | 2.0   | 2.1      | 2.1   | 2.2   | 0.5  | 0.4   | 0.4      | 0.4   | 0.4  |
| Other Private Equity             |       |       |         |                |       | 0.3   | 0.3   | 0.3      | 0.2   | 0.2   | 0.3  | 0.2   | 0.2      | 0.2   | 0.1  |
| Total Private Equity             |       |       |         |                |       | 7.5   | 7.6   | 8.1      | 8.2   | 7.6   | 4.1  | 4.0   | 4.2      | 4.2   | 3.9  |
| Total Fund                       | 100   | 100   | 100     | 100            | 100   | 100   | 100   | 100      | 100   | 100   | 100  | 100   | 100      | 100   | 100  |
| Count                            | 1     | 1     | 1       | 1              | 1     | 16    | 16    | 16       | 16    | 14    | 328  | 374   | 381      | 381   | 367  |
| Median Assets (€ billions)       | 655.7 | 568.2 | 483.6   | 401.8          | 353.7 | 183.9 | 172.4 | 153.3    | 142.1 | 124.8 | 5.7  | 4.2   | 3.9      | 4.0   | 3.7  |
|                                  |       |       |         |                |       |       |       |          |       |       |      |       |          |       |      |

<sup>1.</sup> Your asset mix is based on average assets rather than year-end.

# **Policy mix**

### Policy asset mix - 2010 to 2014

(as a % of average assets)

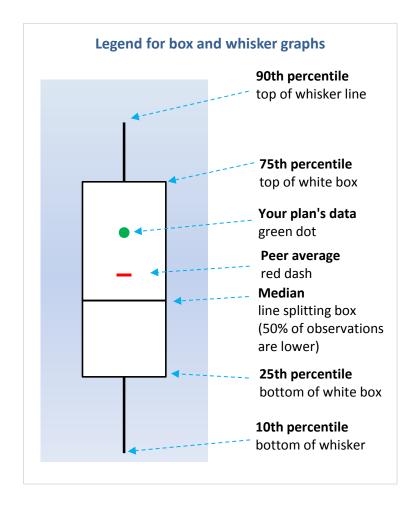
|                                  |      | Yo   | ur fund | l %  |      |      | Peer | r averag | ge % |      |      | Globa | ıl avera | age % |      |
|----------------------------------|------|------|---------|------|------|------|------|----------|------|------|------|-------|----------|-------|------|
|                                  | 2014 | 2013 | 2012    | 2011 | 2010 | 2014 | 2013 | 2012     | 2011 | 2010 | 2014 | 2013  | 2012     |       | 2010 |
| Stock - U.S.                     |      |      |         |      |      | 8.1  | 8.3  | 8.4      | 9.5  | 8.9  | 13.5 | 14.9  | 16.7     | 17.0  | 19.8 |
| Stock - EAFE                     |      |      |         |      |      | 4.8  | 5.9  | 5.6      | 6.6  | 8.7  | 6.8  | 7.7   | 8.4      | 7.8   | 8.3  |
| Stock - ACWIxU.S.                |      |      |         |      |      |      |      | 1.0      | 1.0  |      | 3.3  | 3.0   | 3.1      | 3.1   | 3.1  |
| Stock - Emerging                 |      |      |         |      |      | 3.3  | 3.4  | 3.5      | 3.5  | 3.0  | 2.6  | 2.7   | 2.5      | 2.4   | 2.0  |
| Stock - Global                   | 61.1 | 60.9 | 60.9    | 58.7 | 61.4 | 23.4 | 21.0 | 20.4     | 20.7 | 22.9 | 11.8 | 11.0  | 9.8      | 8.9   | 9.0  |
| Stock - Other                    |      |      |         |      |      | 4.7  | 4.9  | 5.0      | 5.3  | 6.2  | 4.9  | 5.3   | 5.6      | 5.6   | 6.4  |
| Total Stock                      | 61.1 | 60.9 | 60.9    | 58.7 | 61.4 | 44.2 | 43.6 | 43.9     | 46.7 | 49.6 | 43.0 | 44.5  | 46.1     | 44.7  | 48.6 |
| Fixed Income - US                |      |      |         |      |      | 6.2  | 6.1  | 6.2      | 6.6  | 6.0  | 7.1  | 7.8   | 8.7      | 9.0   | 10.4 |
| Fixed Income - EAFE              |      |      |         |      |      | 3.1  | 3.4  | 3.5      | 3.1  | 3.8  | 4.1  | 4.6   | 3.1      | 5.4   | 3.6  |
| Fixed Income - Emerging          |      |      |         |      |      | 1.1  | 1.3  | 1.2      | 0.8  | 0.3  | 1.1  | 1.3   | 0.9      | 0.8   | 0.5  |
| Fixed Income - Global            | 36.7 | 38.1 | 38.4    | 41.0 | 38.6 | 6.1  | 5.8  | 5.9      | 6.0  | 5.7  | 2.7  | 2.7   | 3.2      | 3.2   | 2.7  |
| Fixed Income - Inflation Indexed |      |      |         |      |      | 4.8  | 5.3  | 4.8      | 5.2  | 4.4  | 2.0  | 2.0   | 2.3      | 2.4   | 2.3  |
| Fixed Income - High Yield        |      |      |         |      |      | 0.4  | 0.3  | 0.5      | 0.4  | 0.6  | 1.5  | 1.6   | 1.2      | 1.2   | 1.1  |
| Fixed Income - Mortgages         |      |      |         |      |      | 0.3  | 0.5  | 0.5      | 0.5  | 0.7  | 0.2  | 0.3   | 0.3      | 0.3   | 0.5  |
| Fixed Income - Private Debt      |      |      |         |      |      | 0.0  | 0.1  | 0.0      |      |      | 0.3  | 0.2   | 0.1      | 0.0   |      |
| Fixed Income - Other             |      |      |         |      |      | 9.3  | 9.6  | 9.9      | 9.6  | 10.9 | 19.2 | 17.0  | 16.5     | 16.6  | 15.2 |
| Cash                             |      |      |         |      |      | -0.1 | -0.1 | -0.4     | -0.5 | -0.5 | 0.7  | 0.7   | 0.9      | 1.2   | 1.1  |
| Total Fixed Income               | 36.7 | 38.1 | 38.4    | 41.0 | 38.6 | 31.4 | 32.3 | 32.0     | 31.7 | 31.8 | 38.9 | 38.1  | 37.2     | 40.1  | 37.4 |
| Commodities                      |      |      |         |      |      | 1.1  | 1.6  | 1.6      | 1.6  | 1.3  | 0.5  | 0.7   | 0.7      | 0.7   | 0.7  |
| Infrastructure                   |      |      |         |      |      | 3.0  | 2.7  | 2.6      | 2.3  | 2.5  | 1.2  | 1.0   | 0.9      | 0.8   | 0.7  |
| Natural Resources                |      |      |         |      |      | 1.1  | 1.1  | 1.1      | 1.0  | 0.1  | 0.3  | 0.3   | 0.2      | 0.2   | 0.1  |
| REITs                            |      |      |         |      |      | 0.8  | 0.9  | 0.9      | 0.3  | 0.4  | 0.5  | 0.4   | 0.4      | 0.4   | 0.5  |
| Real Estate ex-REITs             | 2.2  | 1.0  | 0.7     | 0.3  |      | 7.4  | 7.1  | 7.0      | 6.5  | 6.7  | 5.3  | 5.1   | 4.9      | 4.7   | 4.5  |
| Other Real Assets                |      |      |         |      |      | 0.6  | 0.4  | 0.4      | 0.4  | 0.0  | 0.3  | 0.3   | 0.3      | 0.2   | 0.2  |
| Total Real Assets                | 2.2  | 1.0  | 0.7     | 0.3  |      | 14.1 | 13.8 | 13.6     | 12.1 | 11.0 | 8.1  | 7.8   | 7.5      | 7.0   | 6.6  |
| Hedge Funds                      |      |      |         |      |      | 2.7  | 2.9  | 3.1      | 2.2  | 1.9  | 3.7  | 3.5   | 3.3      | 3.1   | 2.8  |
| Global TAA                       |      |      |         |      |      | 0.3  | 0.4  | 0.3      | 0.8  |      | 1.9  | 1.9   | 1.8      | 1.1   | 0.7  |
| Div. Private Equity              |      |      |         |      |      | 6.7  | 6.5  | 6.5      | 5.9  | 5.2  | 3.8  | 3.6   | 3.6      | 3.5   | 3.4  |
| Venture Capital                  |      |      |         |      |      | 0.1  | 0.1  | 0.1      | 0.1  | 0.1  | 0.2  | 0.2   | 0.2      | 0.1   | 0.2  |
| LBO                              |      |      |         |      |      | 0.4  | 0.4  | 0.4      | 0.4  | 0.4  | 0.2  | 0.2   | 0.2      | 0.2   | 0.1  |
| Other Private Equity             |      |      |         |      |      | 0.2  | 0.1  | 0.0      |      |      | 0.2  | 0.1   | 0.1      | 0.1   | 0.1  |
| Total Private Equity             |      |      |         |      |      | 7.4  | 7.0  | 7.1      | 6.4  | 5.7  | 4.4  | 4.2   | 4.1      | 4.0   | 3.9  |
| Total Fund                       | 100  | 100  | 100     | 100  | 100  | 100  | 100  | 100      | 100  | 100  | 100  | 100   | 100      | 100   | 100  |
| Count                            | 1    | 1    | 1       | 1    | 1    | 16   | 16   | 16       | 16   | 14   | 328  | 374   | 381      | 381   | 367  |

# Returns, Benchmarks and Value Added

| nterpreting box and whisker graphs              | 2  |
|---|----|
| Net total returns                               | 3  |
| Policy returns                                  | 4  |
| Net value added                                 | 5  |
| Net returns by asset class                      | 6  |
| Benchmark returns by asset class                | 7  |
| Net value added by asset class                  | 8  |
| Your policy return and value added calculation: |    |
| - 2014  | 9  |
| - 2010 to 2013                                  | 10 |
| Profit/Loss on overlay programs                 | 11 |

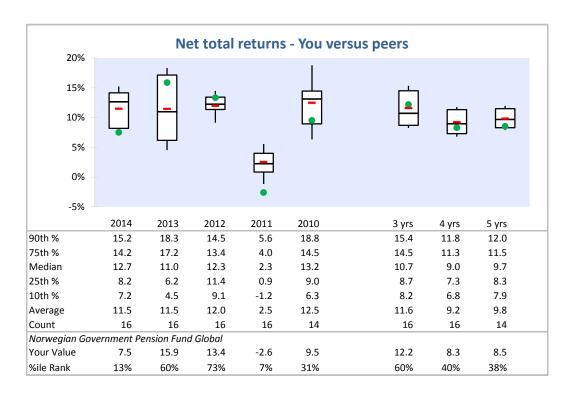
### Interpreting box and whisker graphs

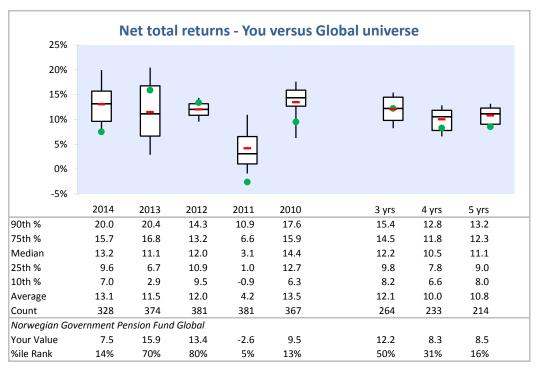
Box and whisker graphs are used extensively in this report because they show visually where you rank relative to all observations. At a glance you can see which quartile your data falls in.



#### Net total returns

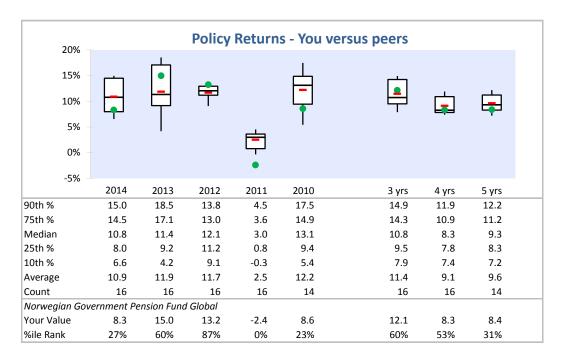
Your 5-year net total return of 8.5% was below the peer median and below the median of the Global universe. Comparisons of total return do not help you understand the reasons behind relative performance. To understand the relative contributions from policy asset mix decisions and implementation decisions we separate total return into its more meaningful components - policy return and implementation value added.

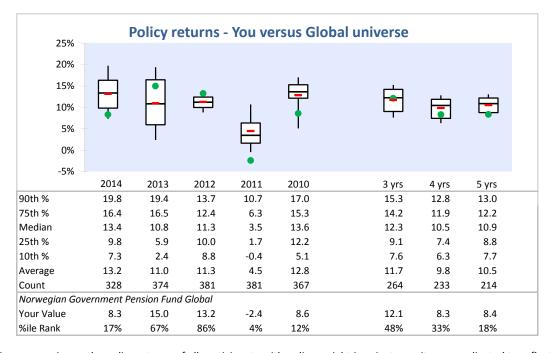




### **Policy returns**

Your 5-year policy return of 8.4% was below the peer median and below the median of the Global universe. Policy return is the return you would have earned had you passively implemented your policy asset mix decision through your benchmark portfolios.

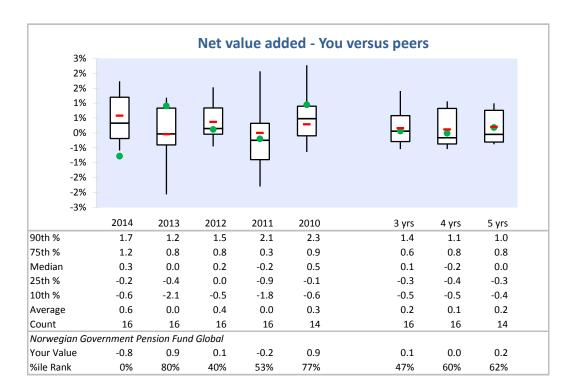


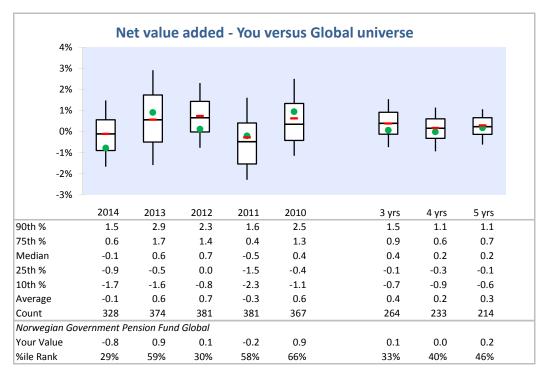


To enable fairer comparisons, the policy returns of all participants with policy weight in private equity were adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. Refer to the Research section pages 6-7 for details.

#### Net value added

Your 5-year net value added of 0.2% was above the peer median and close to the median of the Global universe. Net value added is the difference between your net total return and your policy return.





# Net returns by asset class

|                                  |      | ١      | our f | und % | ý<br>0 |      |       | Pe   | er av | erage | %    |      |       | Glo  | bal av | verage | e %  |      |
|----------------------------------|------|--------|-------|-------|--------|------|-------|------|-------|-------|------|------|-------|------|--------|--------|------|------|
| Asset class                      | 2014 | 2013   | 2012  | 2011  | 2010   | 5-yr | 2014  | 2013 | 2012  | 2011  | 2010 | 5-yr | 2014  | 2013 | 2012   | 2011   | 2010 | 5-yr |
| Stock - U.S.                     |      |        |       |       |        |      | 17.3  | 34.7 | 16.0  | 1.9   | 14.7 | 16.5 | 17.9  | 35.1 | 15.4   | 1.4    | 17.5 | 17.0 |
| Stock - EAFE                     |      |        |       |       |        |      | 1.7   | 23.3 | 18.4  | -9.7  | 14.4 | 8.9  | 1.9   | 25.3 | 17.4   | -11.3  | 10.3 | 8.0  |
| Stock - Emerging                 |      |        |       |       |        |      | 5.9   | -0.6 | 17.6  | -16.4 | 19.7 | 4.4  | 4.5   | -0.6 | 17.3   | -17.7  | 19.5 | 3.7  |
| Stock - ACWIxU.S.                |      |        |       |       |        |      | 3.3   | 17.4 | 16.6  | -12.6 |      |      | 3.4   | 19.3 | 16.6   | -11.8  | 12.9 | 7.4  |
| Stock - Global                   | 7.9  | 26.3   | 18.0  | -8.9  | 13.2   | 10.6 | 10.4  | 24.7 | 15.1  | -5.3  | 11.2 | 10.8 | 10.7  | 25.9 | 14.8   | -5.8   | 11.4 | 10.9 |
| Stock - Other                    |      |        |       |       |        |      | 10.0  | 13.9 | 10.9  | -8.7  | 19.4 | 8.6  | 8.5   | 14.5 | 11.4   | -8.7   | 19.6 | 8.6  |
| Stock - Total                    | 7.9  | 26.3   | 18.0  | -8.9  | 13.2   | 10.6 | 9.8   | 23.0 | 15.4  | -5.9  | 14.5 | 10.9 | 10.4  | 25.4 | 15.6   | -5.8   | 15.6 | 11.8 |
| Fixed Income - US                |      |        |       |       |        |      | 18.7  | -1.4 | 5.1   | 9.2   | 6.5  | 7.4  | 13.7  | -0.6 | 6.5    | 9.7    | 8.8  | 7.5  |
| Fixed Income - EAFE              |      |        |       |       |        |      | 10.7  | 3.3  | 9.0   | 8.7   | 4.1  | 7.1  | 12.8  | 3.1  | 9.2    | 7.2    | 1.1  | 6.6  |
| Fixed Income - Emerging          |      |        |       |       |        |      | 1.4   | -5.0 | 15.8  | 0.5   | 11.2 | 4.5  | 4.3   | -5.5 | 15.6   | 2.8    | 12.9 | 5.8  |
| Fixed Income - Global            | 6.9  | 0.1    | 6.7   | 7.0   | 4.1    | 4.9  | 11.7  | -0.1 | 9.6   | 6.2   | 8.1  | 7.0  | 8.8   | 2.0  | 8.9    | 6.2    | 6.2  | 6.4  |
| Fixed Income - Inflation Indexed |      |        |       |       |        |      | 11.0  | -6.3 | 6.8   | 13.6  | 7.6  | 6.3  | 11.7  | -5.9 | 6.9    | 10.3   | 7.6  | 5.9  |
| Fixed Income - High Yield        |      |        |       |       |        |      | 6.1   | 8.4  | 14.1  | 3.8   | 14.2 | 9.3  | 6.4   | 8.8  | 14.2   | 4.0    | 13.6 | 9.3  |
| Fixed Income - Mortgages         |      |        |       |       |        |      | 8.9   | 2.0  | 5.2   | 9.1   | 9.0  | 6.8  | 6.8   | 2.7  | 8.6    | 5.5    | 9.1  | 6.5  |
| Fixed Income - Private Debt      |      |        |       |       |        |      | 3.8   | 6.2  | 8.4   | 4.3   | 15.4 | 7.5  | 5.6   | 7.3  | 8.4    | 2.1    | 15.4 | 7.6  |
| Fixed Income - Other             |      |        |       |       |        |      | 8.6   | 0.0  | 9.4   | 8.1   | 11.9 | 7.5  | 17.5  | -4.3 | 8.5    | 13.8   | 12.3 | 9.3  |
| Cash                             |      |        |       |       |        |      | 2.7   | 0.3  | 1.6   | 4.5   | 2.6  | 2.3  | 1.1   | 0.6  | 0.8    | 1.3    | 1.9  | 1.2  |
| Fixed Income - Total             | 6.9  | 0.1    | 6.7   | 7.0   | 4.1    | 4.9  | 10.7  | -2.8 | 7.5   | 11.0  | 10.4 | 7.2  | 13.9  | -2.6 | 7.9    | 11.7   | 9.7  | 8.0  |
| Commodities                      |      |        |       |       |        |      | -18.9 | -3.2 | 1.5   | -0.7  | 11.9 | -2.4 | -12.0 | -3.6 | -0.2   | -5.1   | 12.6 | -2.0 |
| Infrastructure                   |      |        |       |       |        |      | 20.4  | 10.5 | 8.2   | 2.0   | 11.3 | 10.3 | 11.5  | 7.9  | 7.3    | 5.4    | 8.3  | 8.1  |
| REITs                            |      |        |       |       |        |      | 22.9  | 8.9  | 25.6  | -1.2  | 20.4 | 14.9 | 24.8  | 5.1  | 19.7   | 2.4    | 20.8 | 14.2 |
| Natural Resources                |      |        |       |       |        |      | 13.7  | 7.6  | 4.5   | 0.0   | 6.0  | 6.3  | 14.6  | 7.4  | 4.1    | 3.7    | 8.0  | 7.5  |
| Real Estate ex-REITs             | 10.1 | . 11.3 | 5.0   | -5.2  |        |      | 14.9  | 10.5 | 10.0  | 10.1  | 8.0  | 10.7 | 13.2  | 10.4 | 8.5    | 11.3   | 9.6  | 10.6 |
| Other Real Assets                |      |        |       |       |        |      | 13.0  | 9.5  | 7.5   | -1.8  | 0.9  | 5.7  | 9.6   | 1.6  | 1.4    | -0.4   | 5.9  | 3.6  |
| Real Assets - Total              | 10.1 | 11.3   | 5.0   | -5.2  | 2      |      | 14.5  | 10.1 | 13.3  | 12.9  | 19.6 | 14.1 | 11.7  | 9.3  | 10.7   | 8.7    | 11.8 | 10.4 |
| Hedge Funds                      |      |        |       |       |        |      | 6.5   | 7.9  | 5.0   | 1.0   | 13.1 | 6.6  | 9.6   | 9.6  | 5.5    | 1.1    | 8.7  | 6.9  |
| Global TAA                       |      |        |       |       |        |      | 13.1  | 1.3  | 8.2   | -1.2  | 6.9  | 5.5  | 10.1  | 6.0  | 7.7    | 2.9    | 14.0 | 8.1  |
| Diversified Private Equity       |      |        |       |       |        |      | 17.8  | 15.5 | 12.4  | 8.5   | 22.0 | 15.2 | 19.7  | 16.7 | 10.4   | 12.0   | 14.7 | 14.7 |
| LBO                              |      |        |       |       |        |      | 15.9  | 15.5 | 12.4  | 14.9  | 16.8 | 15.1 | 20.2  | 17.6 | 12.0   | 12.9   | 16.4 | 15.8 |
| Venture Capital                  |      |        |       |       |        |      | 23.4  | 15.8 | 7.5   | 21.2  | 13.7 | 16.2 | 21.8  | 16.5 | 6.2    | 16.6   | 12.2 | 14.5 |
| Other Private Equity             |      |        |       |       |        |      | 16.6  | 14.9 | -0.2  | -8.0  | 21.1 | 8.3  | 15.1  | 16.4 | 5.1    | 6.6    | 12.5 | 11.0 |
| Private Equity - Total           |      |        |       |       |        |      | 17.3  | 17.1 | 12.5  | 10.4  | 20.7 | 15.6 | 19.7  | 16.5 | 9.8    | 12.2   | 14.7 | 14.5 |
| Total Fund Return                | 7.5  | 15.9   | 13.4  | -2.6  | 9.5    | 8.5  | 11.5  | 11.5 | 12.0  | 2.5   | 12.5 | 9.9  | 13.1  | 11.5 | 12.0   | 4.2    | 13.5 | 10.8 |

# Benchmark returns by asset class

|   |      | ١    | our f | und % | )    |      |       | Pe   | er av | erage | %    |      |       | Glo  | bal av | /erage | e %  |      |
|---|------|------|-------|-------|------|------|-------|------|-------|-------|------|------|-------|------|--------|--------|------|------|
| Asset class                             | 2014 | 2013 | 2012  | 2011  | 2010 | 5-yr | 2014  | 2013 | 2012  | 2011  | 2010 | 5-yr | 2014  | 2013 |        | _      |      | 5-yr |
| Stock - U.S.                            |      |      |       |       |      | ,    | 17.5  | 33.8 | 14.8  | 1.7   | 15.8 | 16.3 | 18.7  | 34.2 | 15.3   | 2.2    | 17.4 | 17.1 |
| Stock - EAFE                            |      |      |       |       |      |      | 2.1   | 25.0 | 16.4  | -9.4  | 9.0  | 8.0  | 2.1   | 24.6 | 16.6   | -11.2  | 8.9  | 7.5  |
| Stock - Emerging                        |      |      |       |       |      |      | 5.3   | -1.8 | 17.0  | -16.3 | 18.5 | 3.7  | 4.5   | -1.0 | 16.9   | -17.0  | 18.9 | 3.6  |
| Stock - ACWIxU.S.                       |      |      |       |       |      |      | 2.9   | 16.5 | 15.8  | -12.4 |      |      | 3.1   | 17.3 | 16.1   | -12.6  | 12.2 | 6.6  |
| Stock - Global                          | 8.7  | 25.0 | 17.5  | -8.4  | 12.6 | 10.5 | 9.7   | 22.3 | 14.7  | -5.0  | 11.0 | 10.2 | 10.7  | 25.0 | 14.7   | -5.5   | 11.3 | 10.8 |
| Stock - Other                           |      |      |       |       |      |      | 7.3   | 12.7 | 11.4  | -9.0  | 20.2 | 8.1  | 9.1   | 14.0 | 11.1   | -7.9   | 21.2 | 9.1  |
| Stock - Total                           | 8.7  | 25.0 | 17.5  | -8.4  | 12.6 | 10.5 | 9.4   | 21.9 | 15.3  | -6.3  | 13.9 | 10.4 | 10.7  | 24.0 | 15.1   | -5.4   | 15.1 | 11.4 |
| Fixed Income - US                       |      |      |       |       |      |      | 18.5  | -2.8 | 3.9   | 9.1   | 5.3  | 6.6  | 13.1  | -1.5 | 4.5    | 11.3   | 7.6  | 6.9  |
| Fixed Income - EAFE                     |      |      |       |       |      |      | 9.2   | 1.5  | 8.5   | 8.4   | 3.1  | 6.1  | 13.9  | 2.6  | 8.8    | 7.0    | 0.6  | 6.5  |
| Fixed Income - Emerging                 |      |      |       |       |      |      | 1.9   | -4.0 | 15.8  | 1.5   | 10.4 | 4.9  | 5.8   | -4.9 | 15.4   | 4.4    | 11.3 | 6.2  |
| Fixed Income - Global                   | 7.6  | -0.2 | 7.0   | 6.5   | 2.6  | 4.7  | 10.6  | -0.8 | 7.0   | 5.9   | 6.1  | 5.7  | 8.1   | 1.4  | 6.4    | 6.5    | 4.5  | 5.3  |
| Fixed Income - Inflation Indexed        |      |      |       |       |      |      | 11.3  | -6.6 | 6.5   | 13.2  | 7.4  | 6.1  | 12.9  | -6.1 | 6.3    | 9.9    | 8.0  | 6.0  |
| Fixed Income - High Yield               |      |      |       |       |      |      | 5.7   | 7.7  | 14.6  | 5.3   | 13.3 | 9.3  | 6.3   | 8.6  | 14.5   | 4.7    | 13.8 | 9.5  |
| Fixed Income - Mortgages                |      |      |       |       |      |      | 7.0   | -1.3 | 4.4   | 8.0   | 5.4  | 4.7  | 4.7   | 0.4  | 5.7    | 6.2    | 5.8  | 4.5  |
| Fixed Income - Private Debt             |      |      |       |       |      |      | 3.9   | 7.0  | 11.3  | 1.7   | 13.9 | 7.5  | 6.1   | 5.4  | 7.1    | 3.4    | 13.9 | 7.1  |
| Fixed Income - Other                    |      |      |       |       |      |      | 8.8   | 1.6  | 8.5   | 11.6  | 12.7 | 8.6  | 18.5  | -4.7 | 7.3    | 14.7   | 11.3 | 9.1  |
| Cash                                    |      |      |       |       |      |      | 2.3   | 0.3  | 1.2   | 1.4   | 2.1  | 1.4  | 2.9   | 0.7  | 0.7    | 1.1    | 1.6  | 1.4  |
| Fixed Income - Total                    | 7.6  | -0.2 | 7.0   | 6.5   | 2.6  | 4.7  | 11.0  | -2.6 | 6.8   | 10.8  | 8.9  | 6.9  | 14.6  | -3.3 | 6.8    | 12.6   | 8.8  | 7.7  |
| Commodities                             |      |      |       |       |      |      | -18.0 | -1.7 | 1.7   | -2.4  | 9.6  | -2.6 | -13.2 | -2.7 | -0.5   | -5.4   | 11.2 | -2.5 |
| Infrastructure                          |      |      |       |       |      |      | 10.8  | 6.7  | 8.2   | 9.2   | 8.7  | 8.7  | 8.9   | 6.7  | 7.9    | 6.4    | 9.1  | 7.8  |
| REITs                                   |      |      |       |       |      |      | 23.3  | 10.9 | 23.7  | -1.6  | 21.8 | 15.2 | 24.6  | 5.5  | 20.0   | 4.5    | 21.1 | 14.8 |
| Natural Resources                       |      |      |       |       |      |      | 10.4  | 9.6  | 4.7   | 7.0   | 4.2  | 7.2  | 11.6  | 9.2  | 6.2    | 5.5    | 6.8  | 7.8  |
| Real Estate ex-REITs                    | 10.4 | 11.8 | 5.8   | -4.4  |      |      | 13.1  | 9.9  | 9.0   | 11.2  | 10.7 | 10.8 | 12.7  | 9.8  | 9.0    | 11.9   | 10.5 | 10.8 |
| Other Real Assets                       |      |      |       |       |      |      | 11.9  | 16.8 | 6.9   | -0.5  | -3.7 | 6.0  | 8.2   | 8.5  | 7.6    | 4.3    | 8.5  | 7.4  |
| Real Assets - Total                     | 10.4 | 11.8 | 5.8   | -4.4  |      |      | 11.7  | 8.8  | 9.5   | 9.5   | 11.7 | 10.2 | 11.2  | 7.8  | 8.6    | 8.9    | 11.7 | 9.6  |
| Hedge Funds                             |      |      |       |       |      |      | 7.7   | 5.6  | 6.0   | 0.9   | 6.6  | 5.3  | 7.9   | 8.0  | 4.6    | 1.0    | 6.0  | 5.5  |
| Global TAA                              |      |      |       |       |      |      | 11.2  | 7.5  | 6.8   | -0.9  | 6.8  | 6.2  | 9.1   | 9.0  | 7.7    | 0.9    | 7.6  | 6.8  |
| Diversified Private Equity <sup>1</sup> |      |      |       |       |      |      | 17.4  | 27.3 | 11.3  | 9.8   | 26.1 | 18.2 | 20.8  | 29.0 | 10.7   | 14.7   | 19.3 | 18.8 |
| LBO <sup>1</sup>                        |      |      |       |       |      |      | 14.2  | 24.9 | 13.1  | 11.7  | 21.1 | 16.9 | 18.9  | 28.4 | 11.8   | 11.8   | 17.2 | 17.5 |
| Venture Capital <sup>1</sup>            |      |      |       |       |      |      | 13.9  | 25.2 | 13.6  | 11.6  | 21.5 | 17.0 | 20.9  | 29.7 | 12.3   | 11.9   | 18.1 | 18.4 |
| Other Private Equity <sup>1</sup>       |      |      |       |       |      |      | 13.8  | 29.6 | 14.6  | 8.4   | 13.4 | 15.7 | 18.9  | 29.0 | 11.8   | 12.9   | 16.3 | 17.6 |
| Private Equity <sup>1</sup> - Total     |      |      |       |       |      |      | 16.0  | 27.3 | 11.8  | 10.4  | 26.1 | 18.1 | 20.7  | 29.0 | 10.7   | 14.7   | 19.0 | 18.6 |
| Total Policy Return                     | 8.3  | 15.0 | 13.2  | -2.4  | 8.6  | 8.4  | 10.9  | 11.9 | 11.7  | 2.5   | 12.2 | 9.8  | 13.2  | 11.0 | 11.3   | 4.5    | 12.8 | 10.5 |

<sup>1.</sup> To enable fairer comparisons, the policy returns of all participants with policy weight in private equity were adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. Refer to the Research section pages 6-7 for details.

# Net value added by asset class

|   |      |      | Your f | und % | 6    |      |      | Pe    | er av | erage | %    |      |      | Glo   | bal a | verage | e %  |      |
|---|------|------|--------|-------|------|------|------|-------|-------|-------|------|------|------|-------|-------|--------|------|------|
| Asset class                             | 2014 | 2013 | 2012   | 2011  | 2010 | 5-yr | 2014 | 2013  | 2012  | 2011  | 2010 | 5-yr | 2014 | 2013  | 2012  | 2011   | 2010 | 5-yr |
| Stock - U.S.                            |      |      |        |       |      |      | -0.2 | 0.9   | 1.2   | 0.2   | -1.1 | 0.2  | -0.7 | 1.0   | 0.1   | -0.8   | 0.2  | -0.1 |
| Stock - EAFE                            |      |      |        |       |      |      | -0.4 | -1.7  | 2.0   | -0.3  | 5.5  | 1.0  | -0.2 | 0.8   | 0.9   | -0.1   | 1.4  | 0.5  |
| Stock - Emerging                        |      |      |        |       |      |      | 0.6  | 1.2   | 0.6   | -0.1  | 1.2  | 0.6  | 0.0  | 0.4   | 0.4   | -0.8   | 0.5  | 0.1  |
| Stock - ACWIxU.S.                       |      |      |        |       |      |      | 0.4  | 1.0   | 0.8   | -0.2  |      |      | 0.2  | 2.1   | 0.6   | 0.8    | 0.8  | 0.8  |
| Stock - Global                          | -0.9 | 1.3  | 0.5    | -0.6  | 0.6  | 0.1  | 0.8  | 2.4   | 0.4   | -0.3  | 0.5  | 0.6  | -0.1 | 0.9   | 0.1   | -0.3   | 0.2  | 0.1  |
| Stock - Other                           |      |      |        |       |      |      | 2.7  | 1.2   | -0.2  | 0.3   | -0.8 | 0.6  | -0.4 | 0.8   | 0.2   | -0.9   | -1.8 | -0.4 |
| Stock - Total                           | -0.9 | 1.3  | 0.5    | -0.6  | 0.6  | 0.1  | 0.5  | 1.1   | 0.0   | 0.3   | 0.6  | 0.5  | -0.2 | 1.4   | 0.5   | -0.4   | 0.5  | 0.3  |
| Fixed Income - US                       |      |      |        |       |      |      | 0.2  | 0.0   | 1.2   | 0.1   | 1.2  | 0.9  | 0.3  | 0.8   | 2.1   | -0.9   | 1.5  | 0.6  |
| Fixed Income - EAFE                     |      |      |        |       |      |      | 1.5  | 1.8   | 0.5   | 0.3   | 1.0  | 1.0  | -1.1 | 0.6   | 0.4   | 0.3    | 0.6  | 0.1  |
| Fixed Income - Emerging                 |      |      |        |       |      |      | -0.5 | -1.0  | 0.0   | -0.3  | 0.7  | -0.4 | -1.6 | -0.6  | 0.4   | -1.6   | 1.9  | -0.4 |
| Fixed Income - Global                   | -0.7 | 0.2  | -0.3   | 0.5   | 1.5  | 0.2  | 0.4  | 0.3   | 1.7   | 0.4   | 2.0  | 1.3  | 0.5  | 0.6   | 2.7   | -0.2   | 1.8  | 1.0  |
| Fixed Income - Inflation Indexed        |      |      |        |       |      |      | -0.3 | 0.3   | 0.4   | 0.4   | 0.2  | 0.2  | -1.5 | 0.0   | 0.6   | 0.7    | -0.2 | 0.0  |
| Fixed Income - High Yield               |      |      |        |       |      |      | 0.4  | 8.0   | -0.5  | -1.5  | 0.9  | 0.0  | 0.0  | 0.3   | -0.4  | -0.7   | -0.1 | -0.2 |
| Fixed Income - Mortgages                |      |      |        |       |      |      | 1.9  | 3.2   | 8.0   | 1.1   | 3.6  | 2.1  | 1.9  | 2.4   | 2.9   | -0.8   | 3.2  | 2.0  |
| Fixed Income - Private Debt             |      |      |        |       |      |      | -0.1 | -0.8  | -2.9  | 2.6   | 1.5  | 0.1  | -0.3 | 2.1   | 1.7   | -0.5   | 1.5  | 0.5  |
| Fixed Income - Other                    |      |      |        |       |      |      | -0.2 | -1.6  | 1.0   | -2.5  | -0.7 | -1.0 | -0.2 | 0.5   | 1.1   | -0.9   | 0.9  | 0.2  |
| Cash                                    |      |      |        |       |      |      | 0.5  | 0.0   | 0.4   | 3.1   | 0.5  | 0.9  | -1.9 | 0.0   | 0.2   | 0.2    | 0.4  | -0.2 |
| Fixed Income - Total                    | -0.7 | 0.2  | -0.3   | 0.5   | 1.5  | 0.2  | -0.3 | -0.1  | 0.7   | 0.2   | 1.5  | 0.4  | -0.8 | 0.6   | 1.1   | -0.9   | 0.9  | 0.2  |
| Commodities                             |      |      |        |       |      |      | -0.8 | -1.5  | -0.2  | 1.7   | 2.3  | 0.2  | 2.1  | -1.1  | 0.3   | 0.3    | 1.4  | 0.5  |
| Infrastructure                          |      |      |        |       |      |      | 9.6  | 3.8   | -0.6  | -7.1  | 2.6  | 1.6  | 2.6  | 1.2   | -0.7  | -1.1   | -0.7 | 0.3  |
| REITs                                   |      |      |        |       |      |      | -0.4 | -2.0  | 1.9   | 0.4   | -1.4 | -0.3 | 0.6  | -0.4  | -0.1  | -2.1   | -0.4 | -0.6 |
| Natural Resources                       |      |      |        |       |      |      | 3.3  | -2.1  | -2.1  | -7.0  | 1.7  | -0.9 | 3.0  | -1.9  | -2.4  | -1.8   | 1.1  | -0.4 |
| Real Estate ex-REITs                    | -0.3 | -0.4 | -0.8   | -0.8  | }    |      | 1.8  | 0.7   | 1.0   | -1.1  | -2.7 | -0.1 | 0.6  | 0.6   | -0.5  | -0.6   | -0.8 | -0.2 |
| Other Real Assets                       |      |      |        |       |      |      | 1.1  | -7.3  | 0.6   | -1.4  | 4.6  | -0.3 | 0.1  | -6.8  | -6.4  | -3.9   | -1.0 | -3.8 |
| Real Assets - Total                     | -0.3 | -0.4 | -0.8   | -0.8  | 3    |      | 2.8  | 1.4   | 3.9   | 3.4   | 7.9  | 3.8  | 0.5  | 1.5   | 2.1   | -0.2   | 0.1  | 0.8  |
| Hedge Funds                             |      |      |        |       |      |      | -1.2 | 2.3   | -0.9  | 0.3   | 6.4  | 1.3  | 1.7  | 1.9   | 0.9   | 0.2    | 2.7  | 1.4  |
| Global TAA                              |      |      |        |       |      |      | 1.9  | -6.3  | 1.4   | -0.3  | 0.1  | -0.7 | 1.0  | -3.0  | 0.1   | 1.5    | 6.4  | 1.3  |
| Diversified Private Equity <sup>1</sup> |      |      |        |       |      |      | 0.4  | -11.8 | 1.1   | -1.3  | -5.1 | -3.0 | -1.1 | -12.1 | -0.3  | -2.7   | -4.6 | -4.1 |
| LBO <sup>1</sup>                        |      |      |        |       |      |      | 1.7  | -9.4  | -0.7  | 3.2   | -4.3 | -1.8 | 1.3  | -10.8 | 0.2   | 1.0    | -0.6 | -1.7 |
| Venture Capital <sup>1</sup>            |      |      |        |       |      |      | 9.5  | -9.4  | -6.1  | 9.6   | -7.8 | -0.8 | 1.0  | -13.2 | -6.0  | 4.7    | -5.8 | -3.8 |
| Other Private Equity <sup>1</sup>       |      |      |        |       |      |      | 2.8  | -14.7 | -14.8 | -16.3 | 7.7  | -7.4 | -4.0 | -12.7 | -6.6  | -5.7   | -4.2 | -6.6 |
| Private Equity¹ - Total                 |      |      |        |       |      |      | 1.3  | -10.2 | 0.7   | 0.1   | -5.4 | -2.6 | -0.9 | -12.4 | -0.9  | -2.3   | -4.3 | -4.1 |
| Total fund                              | -0.8 | 0.9  | 0.1    | -0.2  | 0.9  | 0.2  | 0.6  | 0.0   | 0.4   | 0.0   | 0.3  | 0.1  | -0.1 | 0.6   | 0.7   | -0.3   | 0.6  | 0.3  |

Total net value add is determined by both actual and policy allocation. It is the outcome of total net return (page 6) minus total benchmark return (page 7). Aggregate net returns are an asset weighted average of all categories that the fund has an actual allocation to. Aggregate benchmark returns are a policy weighted average and includes only those categories that are part of your policy fund's mix.

<sup>1.</sup> To enable fairer comparisons, the policy returns of all participants with policy weight in private equity were adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. Refer to the Research section pages 6-7 for details.

# Your policy return and value added calculation - 2014

### 2014 Policy Return and Value Added

|                                     | Policy       | Benchmark   |        | Net          | Value       |
|-------------------------------------|--------------|---|--------|--------------|-------------|
| Asset class                         | weight       | Description   | Return | return       | added       |
| Stock - Global                      | 61.1%        | Your Stock: Global benchmark                          | 8.7%   | 7.9%         | -0.9%       |
| Fixed Income - Global               | 36.7%        | Barclays Global Aggregate + Barclays Global Inflation | 7.6%   | 6.9%         | -0.7%       |
| Real Estate ex-REITs                | 2.2%         | Custom (Actual)                                       | 10.4%  | 10.1%        | -0.3%       |
| Total                               | 100.0%       |   |        |              |             |
| Net Actual Return (reported by you  | )            |   |        |              | 7.5%        |
| Calculated Policy Return = sum o    | f (policy we | eights X benchmark returns)                           |        | 8.4%         |             |
| Adjustment to reflect rebalancing   | g and overl  | ay impacts  |        | <u>-0.1%</u> |             |
| Policy Return                       |              |   |        |              | <u>8.3%</u> |
| Net Value Added (Net Return - Polic | y Return)    |   |        |              | -0.8%       |

The fund return consists of Equity, Fixed Income and Real Estate. The fund benchmark is the weighted benchmark of Equity and Fixed Income, the benchmark for Real Estate used in the report is the actual portfolio return.

# Your policy return and value added calculations - 2010 to 2013

#### 2013 Policy Return and Value Added

|                                  | Policy       | Benchmarl         | <      | Net    | Value        |
|----------------------------------|--------------|-------------------|--------|--------|--------------|
| Asset class                      | weight       | Description       | Return | return | added        |
| Stock - Global                   | 60.9%        | Your Stock: Globa | 25.0%  | 26.3%  | 1.3%         |
| Fixed Income - U.S.              | 38.1%        | Barclays Global A | -0.2%  | 0.1%   | 0.2%         |
| Fixed Income - Global            | 38.1%        | Barclays Global A | -0.2%  | 0.1%   | 0.2%         |
| Real Estate ex-REITs             | 1.0%         | Custom (Actual)   | 11.8%  | 11.3%  | -0.4%        |
| Total                            | 100.0%       |                   |        |        |              |
| Net Return (reported by you)     |              |                   |        |        | 15.9%        |
| Calculated policy return (sum: F | Policy weigh | nts x benchmarks) |        | 15.2%  |              |
| Adjustment to reflect rebalanci  | ng and ove   | rlay impacts      |        | -0.3%  |              |
| Policy Return                    |              |                   |        |        | <u>15.0%</u> |
| Net Value Added (Net Return - P  | olicy Retur  | n)                |        |        | 0.9%         |

#### 2011 Policy Return and Value Added

|  | Policy         | Benchmarl         | Net    | Value  |       |  |  |
|--|----------------|-------------------|--------|--------|-------|--|--|
| Asset class                                  | weight         | Description       | Return | return | added |  |  |
| Stock - Global                               | 58.7%          | Your Stock: Globa | -8.4%  | -8.9%  | -0.6% |  |  |
| Fixed Income - U.S.                          | 41.0%          | Barclays Global A | 6.5%   | 7.0%   | 0.5%  |  |  |
| Fixed Income - Global                        | 41.0%          | Barclays Global A | 6.5%   | 7.0%   | 0.5%  |  |  |
| Real Estate ex-REITs                         | 0.3%           | Custom (Actual)   | -4.4%  | -5.2%  | -0.8% |  |  |
| Total  | 100.0%         |                   |        |        |       |  |  |
| Net Return (reported by you)                 |                |                   |        |        | -2.6% |  |  |
| Calculated policy return (sum                | : Policy weigh | nts x benchmarks) |        | 0.4%   |       |  |  |
| Adjustment to reflect rebalar                | ncing and ove  | rlay impacts      |        | -2.8%  |       |  |  |
| Policy Return                                |                |                   |        |        |       |  |  |
| Net Value Added (Net Return - Policy Return) |                |                   |        |        |       |  |  |

#### 2012 Policy Return and Value Added

|   | Policy          | Benchmark         |        | Net    | Value |  |  |
|---|-----------------|-------------------|--------|--------|-------|--|--|
| Asset class   | weight          | Description       | Return | return | added |  |  |
| Stock - Global  | 60.9%           | Your Stock: Globa | 17.5%  | 18.0%  | 0.5%  |  |  |
| Fixed Income - U.S.   | 38.4%           | Barclays Global A | 7.0%   | 6.7%   | -0.3% |  |  |
| Fixed Income - Global                                       | 38.4%           | Barclays Global A | 7.0%   | 6.7%   | -0.3% |  |  |
| Real Estate ex-REITs  | 0.7%            | Custom (Actual)   | 5.8%   | 5.0%   | -0.8% |  |  |
| Total   | 100.0%          |                   |        |        |       |  |  |
| Net Return (reported by you)                                |                 |                   |        |        | 13.4% |  |  |
| Calculated policy return (sum                               | n: Policy weigh | nts x benchmarks) |        | 16.1%  |       |  |  |
| Adjustment to reflect rebalancing and overlay impacts -2.8% |                 |                   |        |        |       |  |  |
| Policy Return   |                 |                   |        |        | 13.2% |  |  |
| Net Value Added (Net Return                                 | - Policy Return | n)                |        |        | 0.1%  |  |  |

#### 2010 Policy Return and Value Added

|  | Policy     | Benchmark         | Net    | Value  |       |  |  |
|--|------------|-------------------|--------|--------|-------|--|--|
| Asset class                                  | weight     | Description       | Return | return | added |  |  |
| Stock - Global                               | 61.4%      | Your Stock: Globa | 12.6%  | 13.2%  | 0.6%  |  |  |
| Fixed Income - U.S.                          | 38.6%      | Barclays Global A | 2.6%   | 4.1%   | 1.5%  |  |  |
| Fixed Income - Global                        | 38.6%      | Barclays Global A | 2.6%   | 4.1%   | 1.5%  |  |  |
| Real Estate ex-REITs                         |            |                   |        |        |       |  |  |
| Total  | 100.0%     |                   |        |        |       |  |  |
| Net Return (reported by you)                 |            |                   |        |        | 9.5%  |  |  |
| Calculated policy return (sum: Po            | licy weigh | nts x benchmarks) |        | 9.7%   |       |  |  |
| Adjustment to reflect rebalancing            | g and ove  | rlay impacts      |        | -1.2%  |       |  |  |
| Policy Return                                |            |                   |        |        |       |  |  |
| Net Value Added (Net Return - Policy Return) |            |                   |        |        |       |  |  |

# Profit/Loss on overlay programs

|                             | Your | F    | Peer median |      |     |    | Global median |    |      |    |
|-----------------------------|------|------|-------------|------|-----|----|---------------|----|------|----|
|                             | 2014 | 2013 | 20          | 2014 |     | 13 | 2014          |    | 2013 |    |
| Overlay type                | bps  | bps  | bps         | #    | bps | #  | bps           | #  | bps  | #  |
| Int. Discretionary Currency |      |      | 0           | 3    | 0   | 3  | 1             | 13 | 0    | 9  |
| Ext. Discretionary Currency |      |      | 2           | 2    | 1   | 1  | 1             | 7  | 0    | 12 |
| Internal Global TAA         |      |      | 10          | 2    | 52  | 1  | 8             | 7  | 25   | 8  |
| External Global TAA         |      |      |             |      |     |    | 13            | 3  | 29   | 3  |
| Internal PolicyTilt TAA     |      |      | 0           | 1    | 0   | 1  | 0             | 5  | 4    | 5  |
| External PolicyTilt TAA     |      |      |             |      |     |    | -20           | 1  | -16  | 3  |
| Internal Commodities        |      |      |             |      |     |    | -1            | 1  | -2   | 2  |
| External Commodities        |      |      | 0           | 1    |     |    | 0             | 2  | -24  | 2  |
| Internal Long/Short         |      |      | 0           | 1    | 23  | 1  | 3             | 8  | 6    | 7  |
| External Long/Short         |      |      |             |      | 27  | 1  | 0             | 1  | 27   | 3  |
| Internal Other              |      |      | 0           | 3    | -1  | 2  | 0             | 11 | 0    | 11 |
| External Other              |      |      |             |      | -1  | 1  | 4             | 8  | 0    | 14 |
| Total Profit/Loss           |      |      | 1           | 7    | 0   | 6  | 4             | 42 | 0    | 52 |

Profit/loss in basis points was calculated using total fund average holdings. This was done to measure the impact of the program at the total fund level.

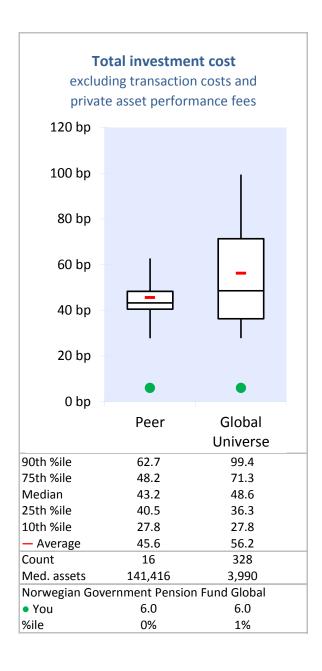
# **Total cost and benchmark cost**

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### **Comparisons of total investment cost**

Your total investment cost, excluding transaction costs and private asset performance fees, of 6.0 bps was below the peer median of 43.2 bps.

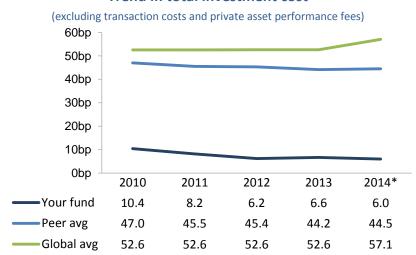
Differences in total investment cost are often caused by two factors that are usually outside of management's control: asset mix and fund size. Therefore, to assess whether your fund's total investment cost is high or low given your unique asset mix and size, CEM calculates a benchmark cost for your fund. Benchmark cost analysis begins on page 7 of this section.



#### Trend in total investment cost

Your total investment cost, excluding transaction costs and private asset performance fees, decreased from 10.4 bps in 2010 to 6.0 bps in 2014.

#### Trend in total investment cost



Trend analysis is based on the 214 Global funds and the 14 peer funds with 5 or more consecutive years of data.

<sup>\*</sup> Starting in 2014 hedge fund performance fees are being included for all participants. This is one reason for the uptick in costs relative to 2013.

### Types of costs included in your total investment cost

The table below outlines the types of costs included in your total investment cost.

|  | Inte                   | ernal             | <u>External</u>      |                          |                                   |                   |  |  |  |
|--|------------------------|-------------------|----------------------|--------------------------|-----------------------------------|-------------------|--|--|--|
| Asset class  | In-house<br>total cost | Transaction costs | Manager<br>base fees | Monitoring & other costs | Perform.<br>fees<br>(active only) | Transaction costs |  |  |  |
| Public (Stock, Fixed income, commodities, REITs)   | ✓                      | ×                 | ✓                    | ✓                        | ✓                                 | ×                 |  |  |  |
| Derivatives/Overlays   | ✓                      | ×                 | ✓                    | ✓                        | ✓                                 | ×                 |  |  |  |
| Hedge funds & Global TAA Hedge Funds Global TAA  | n/a<br>✓               | n/a<br><b>x</b>   | <b>√</b> ✓           | <b>√</b> ✓               | <b>√</b>                          | x<br>x            |  |  |  |
| Private equity (Diversified private equity, venture capital, LBO, other private equity)          | ✓                      | ×                 | <b>√</b> *           | ✓                        | ×                                 | ×                 |  |  |  |
| Private real assets (Infrastructure, natural resources, real estate ex-REITs, other real assets) | ✓                      | ×                 | <b>√</b> ∗           | ✓                        | ×                                 | ×                 |  |  |  |

<sup>\*</sup>For limited partnerships, external manager base fees represent gross contractual management fees.

- ✓ indicates cost is included.
- \* indicates cost is excluded.
- Green shading indicates that the cost type has been newly added for the 2014 data year.
- CEM currently excludes external private asset performance fees and all transaction costs from your total cost because only a limited number of participants are currently able to provide complete data.

### Detailed breakdown of your total investment cost

Your 2014 total investment cost, excluding transaction costs and private asset performance fees, was 6.0 bp or €393.3 million.

#### **Your investment costs**

|   | Inte       | rnal      | External Pass |               | Е         | xternal Ac        | tive       | Т       | otal  |       |
|---|------------|-----------|---------------|---------------|-----------|-------------------|------------|---------|-------|-------|
|   |            |           |               | Monitoring    | Base      | Perform.          | Monitoring |         |       | % of  |
|   | Passive    | Active    | Fees          | & Other       | Fees      | Fees <sup>1</sup> | & Other    | €000s   | bps   | Total |
| Asset management  |            |           |               |               |           |                   |            |         |       |       |
| Stock   |            | 81,998    |               |               | 50,165    | 77,696            | 4,326      | 214,185 |       | 54%   |
| Fixed Income  |            | 25,671    |               |               | 3,153     | -                 | 180        | 29,004  |       | 7%    |
| Tixed illcome   | مارين مرا  | ′         |               |               | 3,133     |                   | 180        | 29,004  |       | 7 70  |
| D 1511 O 11 C1  |            | Oversight |               |               |           |                   |            | 20.424  |       | 70/   |
| Real Estate - Operating Sub.  |            | 28,131    |               |               |           |                   |            | 28,131  |       | 7%    |
| Total asset management costs excluding private asset performance fees |            |           |               |               |           |                   |            | 271,320 | 4.1bp | 69%   |
| Oversight, custodial & other ass                                      | et related | l costs   |               |               |           |                   |            |         |       |       |
| Oversight of the Fund   |            |           |               |               |           |                   |            | 59,310  |       | 15%   |
| Trustee & Custodial   |            |           |               |               |           |                   |            | 51,964  |       | 13%   |
| Consulting and Performance Me   | easureme   | nt        |               |               |           |                   |            | 6,363   |       | 2%    |
| Audit   |            |           |               |               |           |                   |            | 4,314   |       | 1%    |
| Other   |            |           |               |               |           |                   |            | •       |       |       |
| Total oversight, custodial & other                                    | er costs   |           |               |               |           |                   |            | 121,951 | 1.9bp | 31%   |
| Total investment costs excluding                                      | g transact | ion costs | and pri       | vate asset pe | rformance | e fees            |            | 393,271 | 6.0bp | 100%  |

<sup>&</sup>lt;sup>1</sup> Starting in 2014, CEM changed its methodology to include performance fees on hedge funds in total cost used for comparison and benchmarking. Performance fees for real estate, infrastructure, natural resources and private equity are excluded.

### **Changes in your investment costs**

The table below shows how your investment costs have changed from year to year by asset class.

### Change in your investment costs (2014 - 2010)

|                                      | Investment costs (€000s) |         |         |         |         |        | Change | e (€000s) |         | Change (%) |      |      |      |
|--------------------------------------|--------------------------|---------|---------|---------|---------|--------|--------|-----------|---------|------------|------|------|------|
|                                      | 2014                     | 2013    | 2012    | 2011    | 2010    | 2014   | 2013   | 2012      | 2011    | 2014       | 2013 | 2012 | 2011 |
| Asset management                     |                          |         |         |         |         |        |        |           |         |            |      |      |      |
| Stock                                | 214,185                  | 210,993 | 146,290 | 176,572 | 230,072 | 3,192  | 64,703 | -30,282   | -53,500 | 2%         | 44%  | -17% | -23% |
| Fixed Income                         | 29,004                   | 27,155  | 33,538  | 33,080  | 34,131  | 1,849  | -6,383 | 458       | -1,051  | 7%         | -19% | 1%   | -3%  |
|                                      |                          |         |         |         |         |        |        |           |         |            |      |      |      |
| Real Estate - Operating Sub.         | 28,131                   | 21,479  | 15,155  | 8,178   | 0       | 6,652  | 6,324  | 6,977     | 8,178   | 31%        | 42%  | 85%  |      |
| Total excl. private asset perf. fees | 271,320                  | 259,627 | 194,983 | 217,830 | 264,203 | 11,693 | 64,644 | -22,847   | -46,373 | 5%         | 33%  | -10% | -18% |
| Oversight, custodial & other asset   | related                  | costs   |         |         |         |        |        |           |         |            |      |      |      |
| Oversight of the Fund                | 59,310                   | 67,148  | 64,168  | 65,464  | 69,126  | -7,838 | 2,980  | -1,296    | -3,662  | -12%       | 5%   | -2%  | -5%  |
| Trustee & Custodial                  | 51,964                   | 43,763  | 33,318  | 36,160  | 31,701  | 8,201  | 10,445 | -2,842    | 4,459   | 19%        | 31%  | -8%  | 14%  |
| Consulting and Performance Meas      | 6,363                    | 2,292   | 2,356   | 5,105   | 0       | 4,071  | -64    | -2,749    | 5,105   | 178%       | -3%  | -54% |      |
| Audit                                | 4,314                    | 4,667   | 4,464   | 4,077   | 4,537   | -353   | 203    | 387       | -460    | -8%        | 5%   | 9%   | -10% |
| Other                                | 0                        | 0       | 0       | 0       | 0       |        |        |           |         |            |      |      |      |
| Total oversight, custodial & other   | 121,951                  | 117,872 | 104,308 | 110,809 | 105,367 | 4,079  | 13,564 | -6,501    | 5,442   | 3%         | 13%  | -6%  | 5%   |
| Total investment costs <sup>1</sup>  | 393,271                  | 377,504 | 299,295 | 328,644 | 369,577 | 15,767 | 78,208 | -29,349   | -40,933 | 4%         | 26%  | -9%  | -11% |
| Total in basis points                | 6.0bp                    | 6.6bp   | 6.2bp   | 8.2bp   | 10.4bp  |        |        |           |         |            |      |      |      |

<sup>&</sup>lt;sup>1</sup> Starting in 2014, CEM changed its methodology to include performance fees on hedge funds in total cost used for comparison and benchmarking. Performance fees for real estate, infrastructure, natural resources and private equity are excluded.

#### Total cost versus benchmark cost

Your fund's total investment cost, excluding transaction costs and private asset performance fees, was 13.3 bps below your benchmark cost of 19.3 bps. This implies that your fund was low cost by 13.3 bps compared to the peer median, after adjusting for your fund's asset mix.

#### Your cost versus benchmark

| Your fund's total investment cost excluding transaction costs and | €000s<br>393,271 | bps<br>6.0 bp |
|---|------------------|---------------|
| illiquid asset performance fees                                   |                  |               |
| <ul> <li>Your fund's benchmark</li> </ul>                         | 1,263,811        | 19.3 bp       |
| = Your fund's cost savings  | -870,540         | -13.3 bp      |

Your benchmark cost is an estimate of your total costs assuming that you paid the peer median cost for each of your investment mandates and fund oversight. The calculation of your benchmark cost is shown on the following page.

The reasons why your fund's total cost was below your benchmark are summarized in the table below. Details of each of the impacts below are provided on pages 9 to 12.

#### Reasons why your fund was low cost

|   | Cost/-Savings |          |  |
|---|---------------|----------|--|
|   | imp           | · ·      |  |
|   | €000s         | bps      |  |
| Differences in implementation style:    |               |          |  |
| External active vs. low cost styles     | -574,551      | -8.8 bp  |  |
| Fund of funds vs. external direct       | 0             | 0.0 bp   |  |
| Mix of internal and passive styles      | 90,044        | 1.4 bp   |  |
| Style impact of overlays                | -168,799      | -2.6 bp  |  |
| Total style impact                      | -653,306      | -10.0 bp |  |
| Paying more/-less for similar services: |               |          |  |
| External investment management          | 20,114        | 0.3 bp   |  |
| Private asset performance fees          | 0             | 0.0 bp   |  |
| Internal investment management          | -230,363      | -3.5 bp  |  |
| Oversight, custodial and other          | -6,985        | -0.1 bp  |  |
| Total impact of paying more /-less      | -217,234      | -3.3 bp  |  |
| Total savings                           | -870,540      | -13.3 bp |  |

#### **Benchmark cost calculation**

Your 2014 benchmark cost was 19.3 basis points or €1.3 billion. It equals your holdings for each asset class multiplied by the peer median cost for the asset class. The peer median cost is the style weighted average for all implementation styles (i.e., internal passive, internal active, external passive, external active).

### Calculation of your 2014 benchmark cost

|   | Your    | Weighted          |           |
|---|---------|-------------------|-----------|
|   | average | peer median       | Benchmark |
| Asset class                               | assets  | cost <sup>1</sup> | €000s     |
|   | (A)     | (B)               | (A X B)   |
| Asset management costs                    |         |                   |           |
| Stock                                     | 401,490 | 17.0 bp           | 680,760   |
| Fixed Income                              | 244,982 | 9.1 bp            | 223,684   |
| Real Estate ex-REITs (including oper. suk | 9,227   | 66.8 bp           | 61,632    |
| Overlay Programs <sup>2</sup>             | 655,699 | 2.6 bp            | 168,799   |
| Benchmark for asset management            | 655,699 | 17.3 bp           | 1,134,875 |
| Oversight, custody and other costs        |         |                   |           |
| Oversight of the Fund                     | 655,699 | 1.0 bp            | 65,534    |
| Trustee & Custodial                       | 655,699 | 0.6 bp            | 40,381    |
| Consulting                                | 655,699 | 0.1 bp            | 8,215     |
| Audit                                     | 655,699 | 0.0 bp            | 2,405     |
| Other                                     | 655,699 | 0.2 bp            | 12,403    |
| Benchmark for oversight, custody & other  | r       | 2.0 bp            | 128,936   |
| Total benchmark cost                      |         | 19.3 bp           | 1,263,811 |

<sup>1.</sup> The weighted peer median cost for asset management is the style-weighted average of the peer median costs for all implementation styles (i.e., internal passive, internal active, external passive, external active, fund of fund). It excludes performance fees on private assets. The style weights by asset class for your fund and the peers are shown on page 17 of this section.

<sup>2.</sup> Total fund average holdings is used as the base when calculating the relative cost impact of the overlay programs.

### Cost impact of differences in implementation style

Differences in implementation style (i.e., external active management versus lower cost indexed and internal management, fund of funds versus lower cost direct LPs, and overlay usage) relative to your peers saved you 10.0 bps.

### Calculation of the cost impact of differences in implementation style

|                                       | Your avg   | g % External active Pr |                       | Premium vs. | Cost                   | t/          |          |
|---------------------------------------|--|------------------------|-----------------------|-------------|------------------------|-------------|----------|
|                                       | holdings   |                        | Peer                  | More/       | internal and           | -Savir      | ngs³     |
|                                       | (mils)   | You                    | average               | -Less       | passive <sup>1 2</sup> | €000s       | bps      |
|                                       | (A)  |                        |                       | (B)         | (C)                    | (A X B X C) |          |
| Stock                                 | 401,490  | 6%                     | 32%                   | -26%        | 39 bp                  | -402,291    |          |
| Fixed Income                          | 244,982  | 1%                     | 23%                   | -22%        | 25 bp                  | -133,585    |          |
| Real Estate ex-REITs (incl. oper. suk | 9,227  | 0%                     | 62%                   | -62%        | 68 bp                  | -38,675     |          |
| partnerships as % of external:        | 0  |                        | 57%                   |             | 63 bp                  | 0           |          |
| Total impact of differences in extern | nal active m   | anager                 | nent usage            | <b>!</b>    |                        | -574,551    | -8.8 bp  |
| Impact of lower use of portfolio leve | el overlays (  |                        | Overlay usa<br>ge 10) | nge         |                        | -168,799    | -2.6 bp  |
| p                                     | , . ,  |                        | J,                    |             |                        | ,           |          |
|                                       |  |                        | of low cost           | ,           |                        |             | 1.4 bp   |
| Impact of mix of internal indexed, in | Impact of mix of internal indexed, internal active, external indexed (see page 11) |                        |                       |             |                        |             |          |
| Total                                 |  |                        |                       |             |                        | -653,306    | -10.0 bp |

<sup>1.</sup> The external active cost 'premium vs internal and passive' is the additional cost of external active management and fund of funds relative to the average of the other lower cost implementation styles: internal passive, internal active and external passive. These calculations are specific to your peer group.

<sup>2. &#</sup>x27;Insufficient' indicates there is insufficient peer data to determine the cost premium.

### **Cost impact of overlays**

As summarized on the previous page, the style impact of overlays saved you 2.6 bps. If you use more overlays than your peers, or more expensive types of overlays, then it increases your relative cost.

### Calculation of the cost impact of differences in the use of portfolio level overlays

|                                   |          | 0      | 41          |        |           |                       |             | Cost/       |
|-----------------------------------|----------|--------|-------------|--------|-----------|-----------------------|-------------|-------------|
|                                   | Your avg | · ·    |             |        |           | Your cost             | Average     | Cost/       |
|                                   | total    | a % of | avg total h |        | cost as a | as a % of             | cost as a % | -Savings    |
|                                   | holdings |        | Peer        | More/  | % of      | total                 | of total    | Impact      |
|                                   | (mils)   | You    | Average     | -Less  | notional  | holdings <sup>1</sup> | holdings    | (000s)      |
|                                   | (A)      |        |             | (B)    | (C)       |                       |             | (A X B X C) |
| Internal Overlays                 |          |        |             |        |           |                       |             |             |
| Currency - Hedge                  | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.1 bp      | -5,548      |
| Currency - Discretionary          | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.1 bp      | -6,870      |
| Passive Beta - Hedge              | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.1 bp      | -5,818      |
| Duration - Hedge                  | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.1 bp      | -4,915      |
| Global TAA - Discretionary        | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.1 bp      | -3,694      |
| Policy Tilt TAA - Discretionary   | 655,699  | 0.0%   | 12.4%       | -12.4% | 0.4 bp    |                       |             | -3,169      |
| Long/Short - Discretionary        | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.8 bp      | -54,483     |
| Other - Discretionary             | 655,699  | 0.0%   | 0.2%        | -0.2%  | 6.5 bp    |                       |             | -791        |
|                                   |          |        |             |        |           |                       |             |             |
| External Overlays                 |          |        |             |        |           |                       |             |             |
| Currency - Hedge                  | 655,699  | 0.0%   | 2.8%        | -2.8%  | 2.4 bp    |                       |             | -4,378      |
| Currency - Discretionary          | 655,699  | 0.0%   | 0.2%        | -0.2%  | 14.0 bp   |                       |             | -2,002      |
| Passive Beta - Hedge              | 655,699  | 0.0%   | 0.0%        | 0.0%   | 6.2 bp    |                       |             | -146        |
| Duration - Hedge                  | 655,699  | 0.0%   | 0.4%        | -0.4%  | 2.9 bp    |                       |             | -729        |
| Dur. Mgmt Swaption - Hedge        | 655,699  | 0.0%   | 0.0%        | 0.0%   | 3.4 bp    |                       |             | 0           |
| Global TAA - Discretionary        | 655,699  | 0.0%   | 0.0%        | 0.0%   | 13.0 bp   |                       |             | 0           |
| Policy Tilt TAA - Discretionary   | 655,699  | 0.0%   | 0.0%        | 0.0%   | 11.1 bp   |                       |             | 0           |
| Commodity Futures - Discretionary | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 0.0 bp      | -75         |
| Long/Short - Discretionary        | 655,699  | 0.0%   | n/a         |        |           | N/A                   | 1.2 bp      | -76,182     |
| Other - Discretionary             | 655,699  | 0.0%   | 0.0%        | 0.0%   | 7.0 bp    |                       |             | 0           |
| Total impact in 000s              |          |        |             |        |           |                       |             | -168,799    |
| Total impact in basis points      |          |        |             |        |           |                       |             | -2.6 bp     |

<sup>1.</sup> For overlay programs (primarily certain internal, profit seeking programs) where no clear notional value is defined or provided, these types of overlays are compared in terms of cost relative to total holdings.

### Cost impact of lower cost styles

As summarized on page 9, your mix of 'lower-cost' internal and passive styles cost you 1.4 bps. Details are shown below.

### Cost impact of differences in your mix of 'lower-cost' implementation styles

|                           | Your non-       | r non-Percent holdings (of non-external-active) |        |            |        |             |                       |        |  |  |
|---------------------------|-----------------|---|--------|------------|--------|-------------|-----------------------|--------|--|--|
|                           | external active | Internal p                                      | assive | Internal a | active | External pa | -Savings <sup>1</sup> |        |  |  |
|                           | holdings (mils) | You   | Peers  | You        | Peers  | You         | Peers                 | (000s) |  |  |
| Stock                     | 375,631         | 0%  | 35%    | 100%       | 41%    | 0%          | 24%                   | 89,900 |  |  |
| Fixed Income              | 243,704         | 0%  | 28%    | 100%       | 65%    | 0%          | 8%                    | 144    |  |  |
| Real Estate ex-REITs      | 9,227           | 0%  | 0%     | 100%       | 100%   | 0%          | 0%                    | 0      |  |  |
| Total impact in 000s      |                 |   |        |            |        |             |                       | 90,044 |  |  |
| Total impact in basis poi | nts             |   |        |            |        |             |                       | 1.4 bp |  |  |

<sup>1.</sup> Cost/-savings for each asset class equals non-external active holdings within each asset class X cumulative impact from the three lower cost styles. By formula: [ (peer median cost for the style - peer weighted average cost of lower cost styles) X (your weight for the style - peer weight for the style) ]. Peer median costs for each style are shown on page 18.

# Cost impact of paying more/-less for similar services

Differences in what you paid relative to your peers for similar asset management and related oversight and support services saved you 3.3 bps.

### Calculation of the cost impact of paying more/-less

|                                       |         | Your avg | <u>(</u> | Cost in bps |       | Cos      | t/      |
|---------------------------------------|---------|----------|----------|-------------|-------|----------|---------|
|                                       |         | holdings |          | Peer        | More/ | -Savi    | ngs     |
|                                       | Style   | (mils)   | Your     | median      | -less | €000s    | bps     |
|                                       |         | (A)      |          |             | (B)   | (A X B)  |         |
| External asset management             |         |          |          |             |       |          |         |
| Stock                                 | active  | 25,859   | 51.1     | 43.2        | 7.9   | 20,401   |         |
| Fixed Income                          | active  | 1,278    | 26.1     | 28.3        | -2.2  | -287     |         |
| Total for external management         |         |          |          |             |       | 20,114   | 0.3 bp  |
| Internal asset management             |         |          |          |             |       |          |         |
| Stock                                 | active  | 375,631  | 2.2      | 6.8         | -4.6  | -174,585 |         |
| Fixed Income                          | active  | 243,704  | 1.1      | 3.6         | -2.5  | -60,952  |         |
| Real Estate ex-REITs                  | active  | 9,227    | 30.5     | 24.9        | 5.6   | 5,174    |         |
| Total for internal asset managemen    | nt      |          |          |             |       | -230,363 | -3.5 bp |
| Oversight, custodial, other           |         |          |          |             |       |          |         |
| Oversight of the Fund                 |         | 655,699  | 0.9      | 1.0         | -0.1  | -6,224   |         |
| Consulting and Performance Meason     | urement | 655,699  | 0.1      | 0.1         | 0.0   | -1,852   |         |
| Trustee & Custodial                   |         | 655,699  | 0.8      | 0.6         | 0.2   | 11,583   |         |
| Audit                                 |         | 655,699  | 0.1      | 0.0         | 0.0   | 1,909    |         |
| Other                                 |         | 655,699  | 0.0      | 0.2         | -0.2  | -12,403  |         |
| Total for oversight, custodial, other | •       |          |          |             |       | -6,985   | -0.1 bp |
| Total                                 |         |          |          |             |       | -217,234 | -3.3 bp |

<sup>\*</sup>Universe median used as peer data was insufficient.

### Summary of why you are high or low cost by asset class

The table below summarizes where you are high and low cost by asset class. It also quantifies how much is due to differences in implementation style (i.e., differences in the mix of external active, external passive, internal active, internal passive and fund of fund usage) and how much is due to paying more or less for similar services (i.e., same asset class and style).

### Summary of why you are high or low cost by asset class

|   | Your<br>cost <sup>1</sup> | Benchmark = peer weighted median cost <sup>1</sup> | More/<br>-less | Your<br>average<br>assets | More/<br>-less<br>(€000s) | Due to<br>Impl.<br>style<br>(€000s) | Due to<br>paying<br>more/less<br>(€000s) |
|---|---------------------------|--|----------------|---------------------------|---------------------------|-------------------------------------|--|
|   | (A)                       | (B)  | (C = A - B)    | (D)                       | (C X D)                   | (00003)                             | (00003)                                  |
| Asset management costs                    | ()                        | (-7  | ( -            | (- /                      | (===)                     |                                     |  |
| Stock                                     | 5.3 bp                    | 17.0 bp  | -11.6 bp       | 401,490                   | -466,575                  | -312,391                            | -154,184                                 |
| Fixed Income                              | 1.2 bp                    | 9.1 bp   | -7.9 bp        | 244,982                   | -194,680                  | -133,441                            | -61,239                                  |
| Real Estate ex-REITs (including oper. sul | 30.5 bp                   | 66.8 bp  | -36.3 bp       | 9,227                     | -33,501                   | -38,675                             | 5,174                                    |
| Overlay Programs <sup>2</sup>             | 0.0 bp                    | 2.6 bp   | -2.6 bp        | 655,699                   | -168,799                  | -168,799                            | 0  |
| Total asset management                    | 4.1 bp                    | 17.3 bp  | -13.2 bp       | 655,699                   | -863,555                  | -653,306                            | -210,249                                 |
| Oversight, custody and other costs        |                           |  |                |                           |                           |                                     |  |
| Oversight of the Fund                     | 0.9 bp                    | 1.0 bp   | -0.1 bp        | 655,699                   | -6,224                    | n/a                                 | -6,224                                   |
| Trustee & Custodial                       | 0.8 bp                    | 0.6 bp   | 0.2 bp         | 655,699                   | 11,583                    | n/a                                 | 11,583                                   |
| Consulting                                | 0.1 bp                    | 0.1 bp   | 0.0 bp         | 655,699                   | -1,852                    | n/a                                 | -1,852                                   |
| Audit                                     | 0.1 bp                    | 0.0 bp   | 0.0 bp         | 655,699                   | 1,909                     | n/a                                 | 1,909                                    |
| Other                                     | 0.0 bp                    | 0.2 bp   | -0.2 bp        | 655,699                   | -12,403                   | n/a                                 | -12,403                                  |
| Total oversight, custody & other          | 1.9 bp                    | 2.0 bp   | -0.1 bp        | 655,699                   | -6,985                    | n/a                                 | -6,985                                   |
| Total                                     | 6.0 bp                    | 19.3 bp  | -13.3 bp       | 655,699                   | -870,540                  | -653,306                            | -217,234                                 |

<sup>1.</sup> The weighted peer median cost for asset management is the style-weighted average of the peer median costs for all implementation styles (i.e., internal passive, internal active, external passive, external active, fund of fund). It excludes performance fees on private assets. The style weights by asset class for your fund and the peers are shown on page 17 of this section.

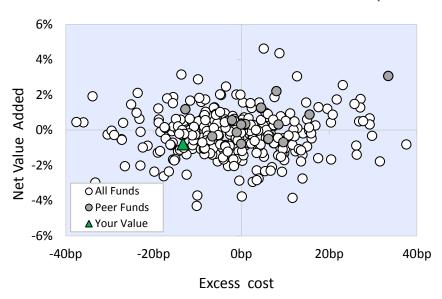
<sup>2.</sup> Total fund average holdings is used as the base when calculating the relative cost impact of the overlay programs.

### Your cost effectiveness ranking

Being high or low cost is neither good nor bad. The more important question is, are you receiving sufficient value for your excess cost? At the total fund level, we provide insight into this question by combining your value added and your excess cost to create a snapshot your cost effectiveness performance relative to that of the survey universe.

For the 2014 year, your fund ranked in the negative value added, low cost quadrant.

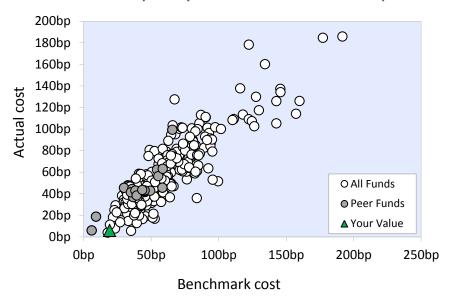
2014 Net Value Added vs Excess Cost<sup>1</sup>: Your Net Value Added -0.8% versus excess cost -13 bps



<sup>1</sup> Benchmark cost and excess cost calculations are based on regression analysis (see Appendix B in this section) for all funds except your fund. Your fund's benchmark cost is based on peer-median costs (per page 7 of this section).

### **Actual cost versus benchmark cost**





<sup>1</sup> Benchmark cost calculations are based on regression analysis (see Appendix B in this section) for all funds except your fund. Your fund's benchmark cost is based on peer-median costs (per page 7 of this section).

### Appendix A: Benchmarking methodology formulas and data

#### a) Formulas

Example calculations are for Stock unless otherwise indicated.

Asset class peer cost

- = Weighted average by peer average style of peer median costs for asset class
- $= [(0.24 \times 2.4 \text{bp}) + (0.28 \times 6.8 \text{bp}) + (0.16 \times 3.4 \text{bp}) + (0.32 \times 43.2 \text{bp})] / (0.24 + 0.28 + 0.16 + 0.32) = 17.0 \text{bp}$

Peer average low cost (by asset class)

- = Weighted average by peer average style of peer median costs for internal passive, internal active and external passive management for asset class
- $= [(0.24 \times 2.4bp) + (0.28 \times 6.8bp) + (0.16 \times 3.4bp)] / (0.24 + 0.28 + 0.16) = 4.4bp$

External active cost premium (by asset class)

- = Peer median external active cost peer average low cost
- = 43.2bp 4.4bp = 38.8bp

Fund of funds premium (by asset class)

- = Peer median fund-of-funds cost peer median external active cost
- = (For private equity) 231.8bp 150.3bp = 81.5bp

Impact from other differences in implementation style (by Asset Class)=

- = [ (Your int. pass. % average peer int. pass. %) X (peer median int. pass. cost peer average low cost)
  - + (your int. act. % peer average int. act. %) X (peer median int. act. cost peer average low cost)
- + (your ext. pass. % average peer ext. pass. %) X (median peer ext. pass. cost peer average low cost) ] X your average holdings

#### b) Insufficient peer data

All peer data is adjusted to ensure comparisons are made only when sufficient data is available. When too few peers have the asset class or style in question, peer costs are replaced with your fund's cost, neutralizing the effect of your cost. Major implementation styles (external active, fund of funds and combined "low cost") that you do not hold are ignored if they have insufficient data to draw major style impact conclusions. Throughout this section, 'peer median' and 'average peer style' always refer to these adjusted values. The following page shows the adjusted data used in this section.

### Appendix A: Benchmarking methodology formulas and data (page 2 of 2)

### c) 2014 cost data used to calculate weighted peer median costs and impact of mix differences.

| Asset Class          | Your costs (basis points) |                    |                     |                    |                 |                  |                     | Pee                | r mediar            | costs (k           | oasis poi        | nts)             |                    |
|----------------------|---------------------------|--------------------|---------------------|--------------------|-----------------|------------------|---------------------|--------------------|---------------------|--------------------|------------------|------------------|--------------------|
|                      | Internal<br>Passive       | Internal<br>Active | External<br>Passive | External<br>Active | Limited Parner. | Fund of<br>Funds | Internal<br>Passive | Internal<br>Active | External<br>Passive | External<br>Active | Limited Partner. | Fund of<br>Funds | Weighted<br>Median |
| Stock - Other        |                           |                    |                     |                    |                 |                  |                     |                    |                     |                    |                  |                  | FALSE              |
| Stock                |                           | 2.2                |                     | 51.1               |                 |                  | 2.4                 | 6.8                | 3.4                 | 43.2               |                  |                  | 17.0               |
| Fixed Income         |                           | 1.1                |                     | 26.1               |                 |                  | 3.1                 | 3.6                | 5.2                 | 28.3               |                  |                  | 9.1                |
| Real Estate ex-REITs |                           | 30.5               |                     |                    |                 |                  |                     | 24.9               |                     | 56.2               | 110.4            | 177.6            | 66.8               |

### d) 2014 Style weights used to calculate the weighted peer median costs and impact of mix differences.

| Style Weights        |                     | You (%)            |                     |                    |                  |                  |                     | Peer average (%)   |                     |                    |                  |                  |  |
|----------------------|---------------------|--------------------|---------------------|--------------------|------------------|------------------|---------------------|--------------------|---------------------|--------------------|------------------|------------------|--|
|                      | Internal<br>Passive | Internal<br>Active | External<br>Passive | External<br>Active | Limited Partner. | Fund of<br>Funds | Internal<br>Passive | Internal<br>Active | External<br>Passive | External<br>Active | Limited Partner. | Fund of<br>Funds |  |
| Stock                | 0.0%                | 93.6%              | 0.0%                | 6.4%               |                  |                  | 23.9%               | 27.5%              | 16.3%               | 32.3%              |                  |                  |  |
| Fixed Income         | 0.0%                | 99.5%              | 0.0%                | 0.5%               |                  |                  | 21.4%               | 50.1%              | 5.9%                | 22.5%              |                  |                  |  |
| Real Estate ex-REITs |                     | 100.0%             |                     | 0.0%               | 0.0%             | 0.0%             |                     | 38.0%              |                     | 26.5%              | 30.8%            | 4.8%             |  |

The above data was adjusted as noted when there were insufficient peers, or for other reasons where direct comparisons were inappropriate.

### **Appendix B: Regression based benchmarks**

#### **Regression Benchmark Cost Equations**

|                              | 201    | 2014  |        | 2013  |        | 2012  |        | 1     | 2010   |       |
|------------------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
|                              | Coeff. | "t"   |
| Constant                     | 84.4   | 19.2  | 76.8   | 18.2  | 73.2   | 18.9  | 72.5   | 18.8  | 65.1   | 14.4  |
| Size in millions (Log 10)    | -15.7  | -14.6 | -14.2  | -13.3 | -13.7  | -13.8 | -13.3  | -13.8 | -13.1  | -11.6 |
| Percentage of assets in:     |        |       |        |       |        |       |        |       |        |       |
| Stocks                       | 14.3   | 3.3   | 19.6   | 4.5   | 19.0   | 4.6   | 14.8   | 3.6   | n/a    |       |
| Domestic stocks              | n/a    |       | n/a    |       | n/a    |       | n/a    |       | 27.0   | 4.7   |
| Foreign stocks               | n/a    |       | n/a    |       | n/a    |       | n/a    |       | 25.8   | 3.1   |
| Real estate                  | 56.7   | 3.7   | 56.9   | 3.8   | 55.1   | 4.2   | 50.8   | 3.9   | 46.5   | 3.1   |
| Private equity & hedge funds | 205.2  | 27.4  | 203.3  | 26.9  | 208.1  | 30.5  | 210.4  | 31.5  | 225.8  | 29.0  |
| Country variable (1 if Cdn)  | -6.9   | -4.0  | -8.1   | -4.7  | -6.4   | -4.1  | -4.9   | -3.3  | -5.2   | -2.6  |
|                              | All    |       | All    |       | All    |       | All    |       | All    |       |
| Standard error               | 14.5   |       | 14.6   |       | 13.1   |       | 13.2   |       | 15.5   |       |
| R-squared                    | 67%    |       | 65%    |       | 71%    |       | 70%    |       | 67%    |       |
| F statistic                  | 185.9  |       | 175.1  |       | 219.0  |       | 231.8  |       | 154.1  |       |
| Sample size                  | 449    |       | 466    |       | 454    |       | 487    |       | 457    |       |

In order to compare your fund's cost effectiveness to the survey universe, a benchmark cost for all participants is required.

The benchmark operating cost for all other funds is determined using regression analysis. The regression equation coefficients and "t statistics" are shown in the table above. An absolute "t" of greater than 2 indicates that the coefficient is statistically significant in predicting the dependent variable, in this case, the benchmark cost.

The benchmark equations have been remarkably robust. Although the coefficients change every year, primarily because of changes in the composition of the survey universe, they remain similar in relative magnitude and direction.

Most importantly, the R-squareds have been high. In 2014, the R-squared was 67% which means that fund size, asset mix and nationality explain more than 67% of the differences in costs between funds. This is good explanatory power.

Below is a description of the coefficients:

- Size = Log10 (fund size in millions)
- % Stocks = proportion in stocks (coefficient changed in 2011)
- % Domestic stocks = proportion in domestic stocks
- % Foreign stocks = proportion in foreign stocks.
- % Real estate = proportion directly invested in real estate and infrastructure.
- % Private equity = proportion in direct and fund-of-funds venture capital, other private equity and hedge funds.
- Country variable = 1 if your country of origin is Canada, otherwise 0.

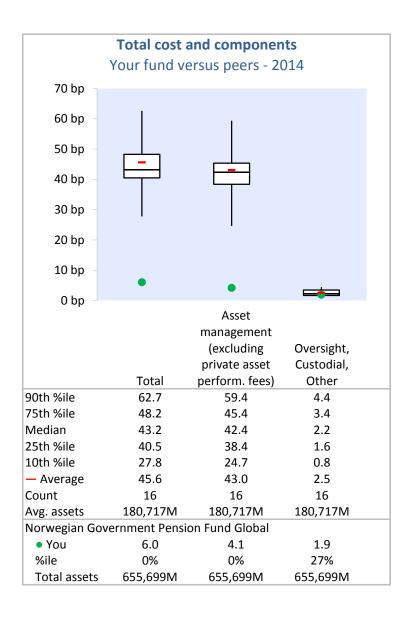
# **Cost comparisons**

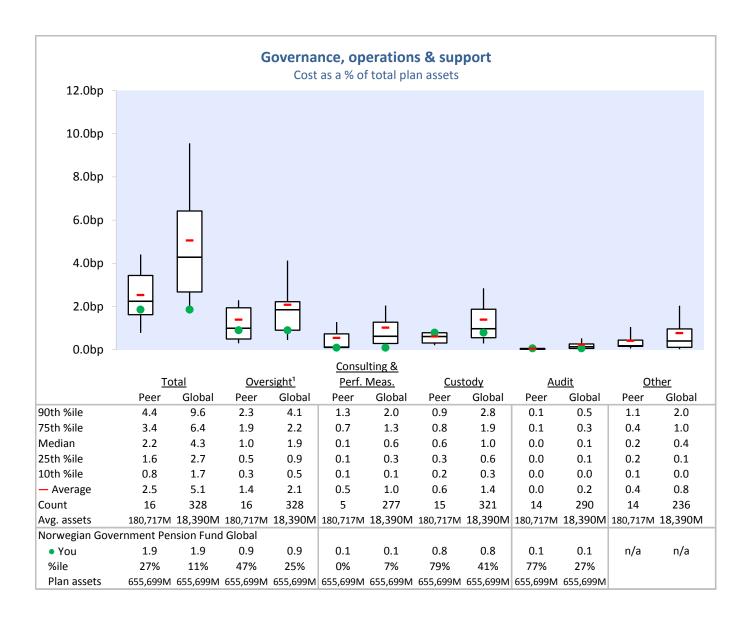
| Total fund cost                  | 2  |
|----------------------------------|----|
| Governance, operations & support | 3  |
| Public asset classes             |    |
| - Stock                          | 4  |
| - Fixed Income                   | 10 |
| - Commodities                    | 19 |
| - REITs                          | 20 |
| Real asset classes               |    |
| - Real estate ex-REITs           | 21 |
| - Infrastructure                 | 22 |
| - Natural resources              | 23 |
| - Other real assets              | 24 |
| Private equity                   |    |
| - Diversified private equity     | 25 |
| - LBO                            | 26 |
| - Venture capital                | 27 |
| - Other private equity           | 28 |
| Global TAA                       | 29 |
| Hedge Funds                      | 30 |
| Overlays                         | 31 |

# **Total fund cost**

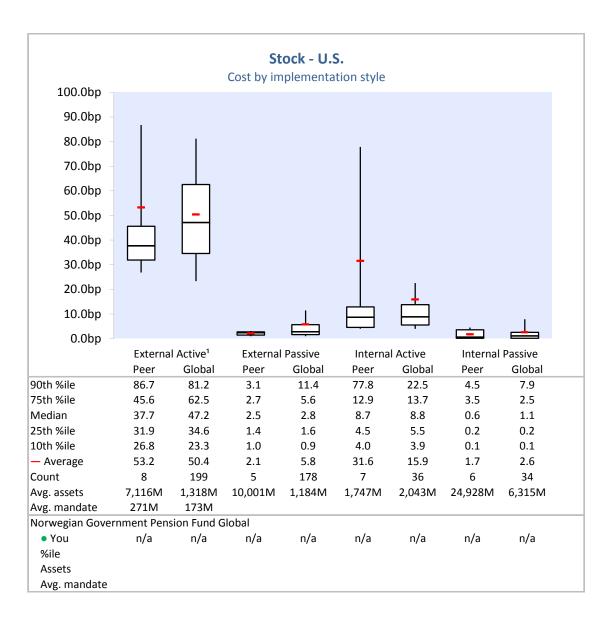
Total costs are benchmarked in the previous section. In this section, your fund's costs are compared on a lineitem basis to your peers. This enables you to understand better why you may be a high or low cost fund and it also identifies and quantifies major cost differences that may warrant further investigation.

The 25th to 75th percentile range is the most relevant since higher and lower values may include outliers caused by unusual circumstances, such as performance-based fees. Count refers to the number of funds in your peer group that have costs in this category. It enables you to gauge the statistical significance.

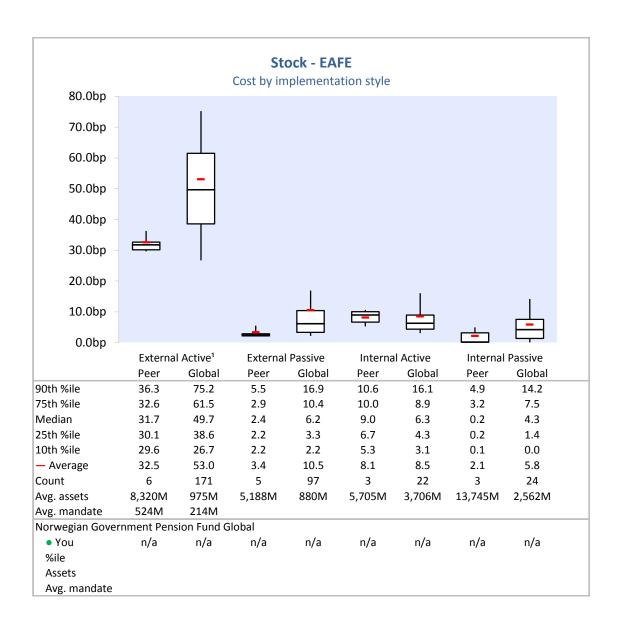




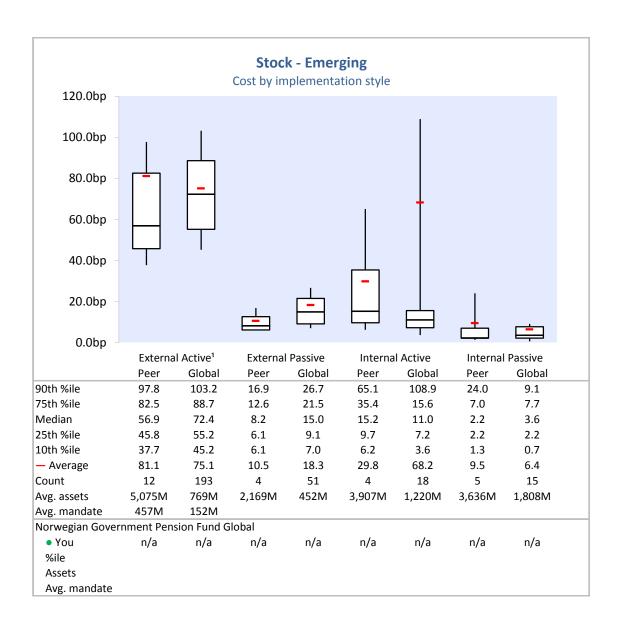
<sup>1.</sup> Oversight costs include the salaries and benefits of executives and their staff responsible for overseeing the entire fund or multiple asset classes and the fees/salaries of the Board or Investment Committee. All costs associated with the above including fees/salaries, travel, director's insurance and attributed overhead are included. Given fiduciary obligations, having the lowest oversight costs is not necessarily optimal. Some sponsors with lower-than-average executive and administration costs compensate by having-higher-than average consulting costs.



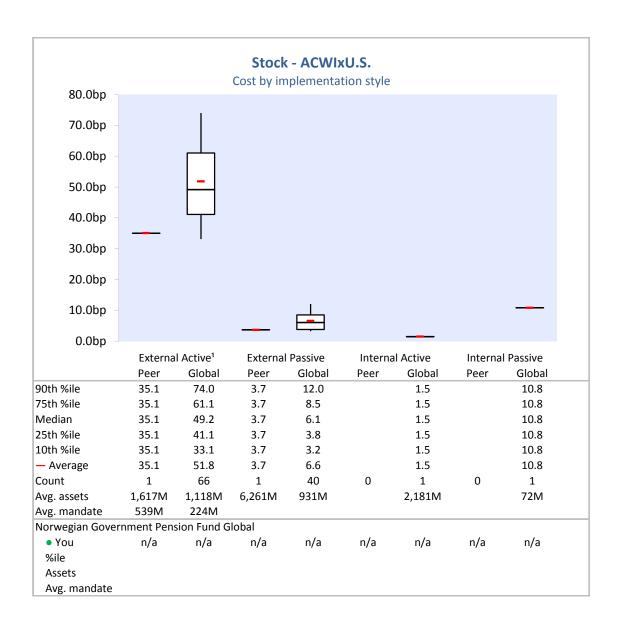
|                    |            | Peer    | Global  |
|--------------------|------------|---------|---------|
|                    | You        | Average | Average |
| Base fees          | n/a        | 42.5    | 45.8    |
| Performance fees   | n/a        | 9.9     | 4.2     |
| Internal and other | <u>n/a</u> | 0.9     | 0.4     |
| Total              | n/a        | 53.2    | 50.4    |



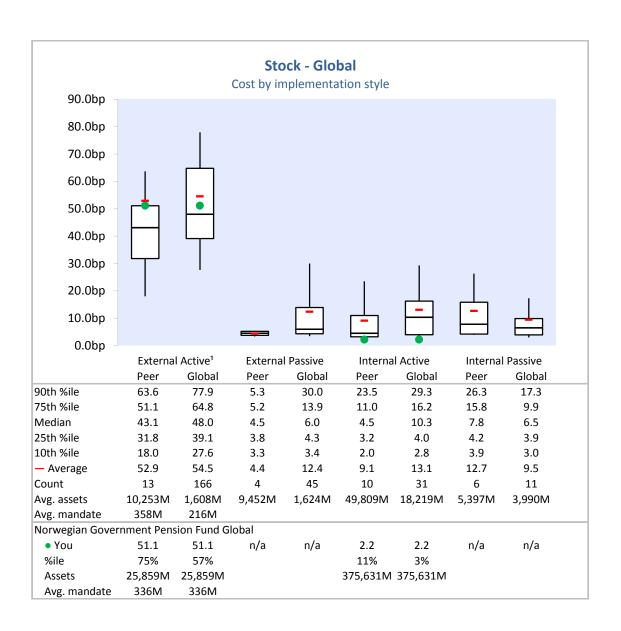
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | n/a        | 24.8       | 48.2       |
| Performance fees   | n/a        | 7.2        | 4.3        |
| Internal and other | <u>n/a</u> | <u>0.5</u> | <u>0.5</u> |
| Total              | n/a        | 32.5       | 53.0       |



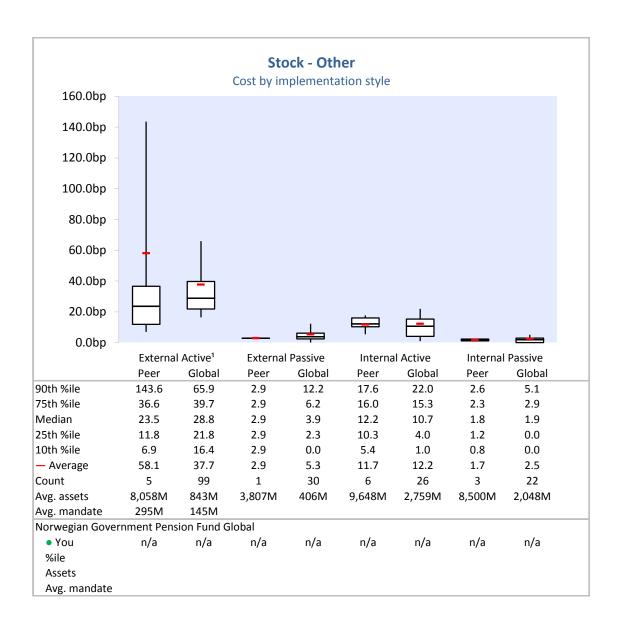
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 53.3        | 69.1       |
| Performance fees   | n/a        | 13.6        | 3.9        |
| Internal and other | <u>n/a</u> | <u>14.2</u> | <u>2.1</u> |
| Total              | n/a        | 81.1        | 75.1       |



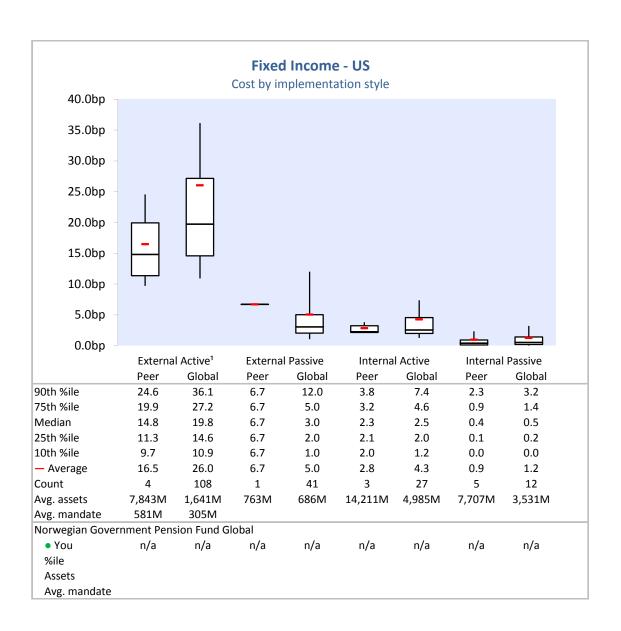
|                    |            | Peer       | Global  |
|--------------------|------------|------------|---------|
|                    | You        | Average    | Average |
| Base fees          | n/a        | 33.9       | 49.7    |
| Performance fees   | n/a        | 0.0        | 1.9     |
| Internal and other | <u>n/a</u> | <u>1.1</u> | 0.3     |
| Total              | n/a        | 35.1       | 51.8    |



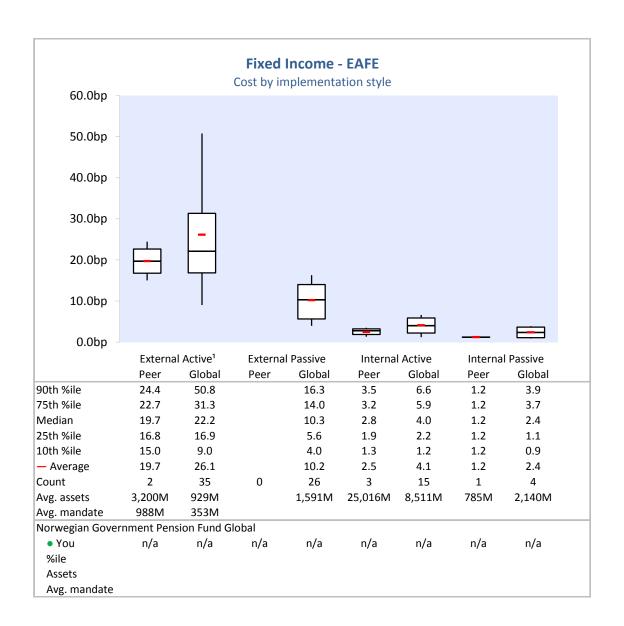
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | 19.4       | 36.4       | 47.9       |
| Performance fees   | 30.0       | 14.3       | 5.6        |
| Internal and other | <u>1.7</u> | <u>2.2</u> | <u>1.1</u> |
| Total              | 51.1       | 52.9       | 54.5       |



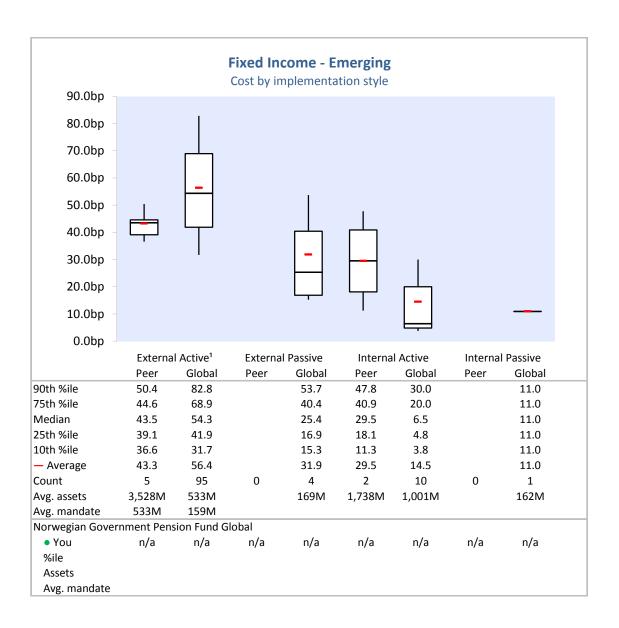
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | n/a        | 28.9       | 32.6       |
| Performance fees   | n/a        | 25.3       | 4.3        |
| Internal and other | <u>n/a</u> | <u>4.0</u> | <u>0.9</u> |
| Total              | n/a        | 58.1       | 37.7       |



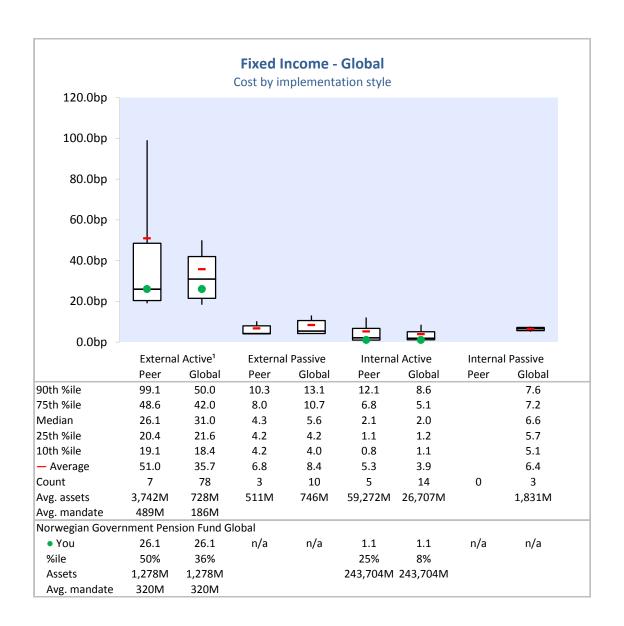
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | n/a        |            |            |
| Performance fees   | n/a        |            |            |
| Internal and other | <u>n/a</u> | <u>4.0</u> | <u>0.6</u> |
| Total              | n/a        | 16.5       | 26.0       |



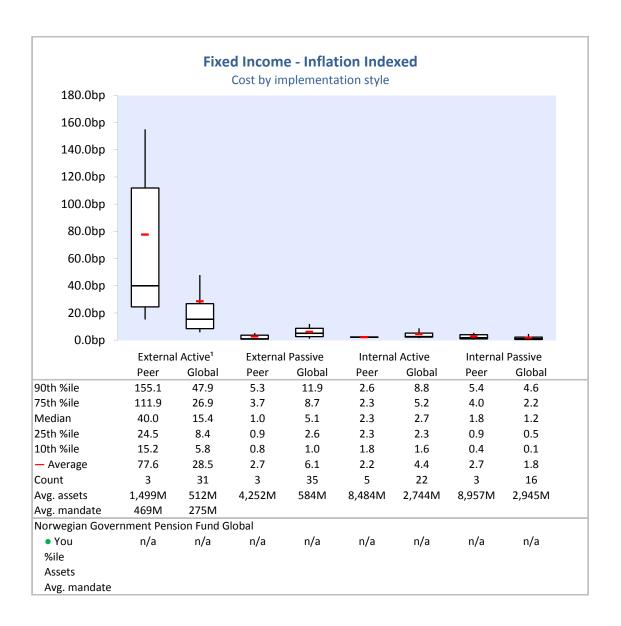
|                    |            | Peer    | Global     |
|--------------------|------------|---------|------------|
|                    | You        | Average | Average    |
| Base fees          | n/a        | 10.4    | 20.6       |
| Performance fees   | n/a        | 8.7     | 0.9        |
| Internal and other | <u>n/a</u> | 0.6     | <u>4.6</u> |
| Total              | n/a        | 19.7    | 26.1       |



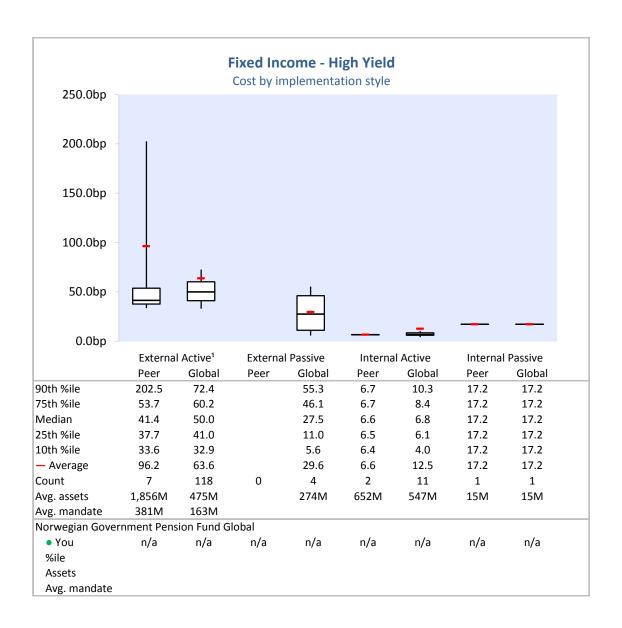
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | n/a        | 39.3       | 53.3       |
| Performance fees   | n/a        | 1.7        | 1.4        |
| Internal and other | <u>n/a</u> | <u>2.3</u> | <u>1.6</u> |
| Total              | n/a        | 43.3       | 56.4       |



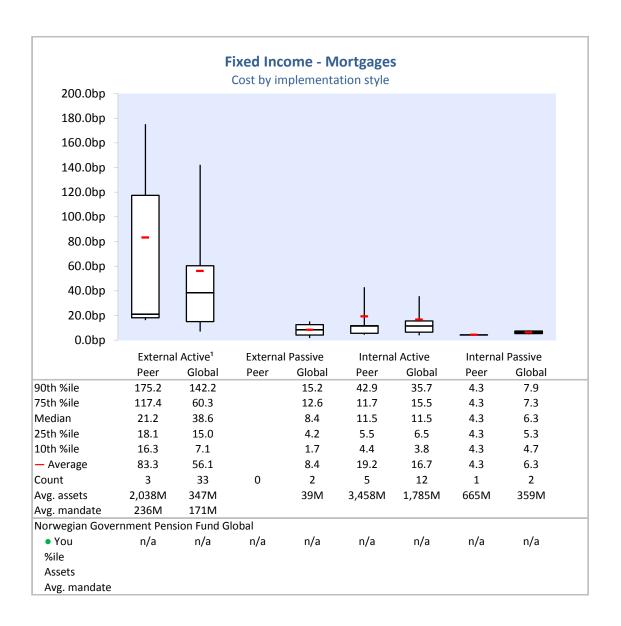
|                    |            | Peer       | Global  |
|--------------------|------------|------------|---------|
|                    | You        | Average    | Average |
| Base fees          | 24.7       | 28.6       | 32.2    |
| Performance fees   | 0.0        | 17.0       | 2.6     |
| Internal and other | <u>1.4</u> | <u>5.4</u> | 0.9     |
| Total              | 26.1       | 51.0       | 35.7    |



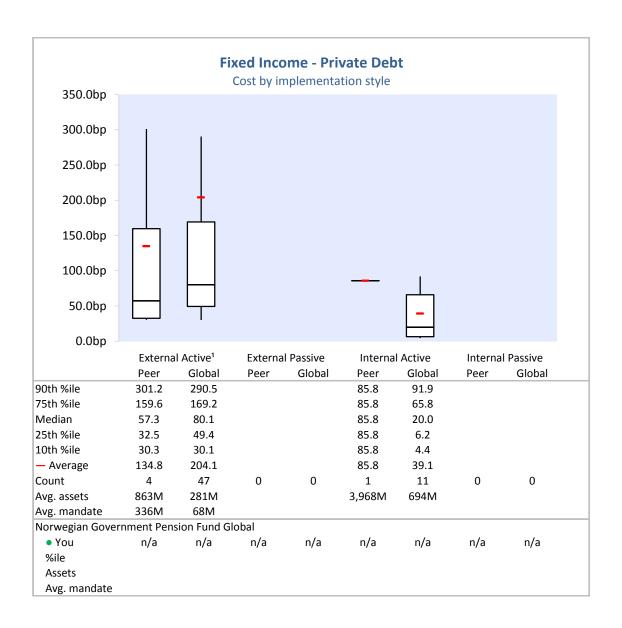
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 58.7        | 23.6       |
| Performance fees   | n/a        | 0.2         | 2.8        |
| Internal and other | <u>n/a</u> | <u>18.7</u> | <u>2.1</u> |
| Total              | n/a        | 77.6        | 28.5       |



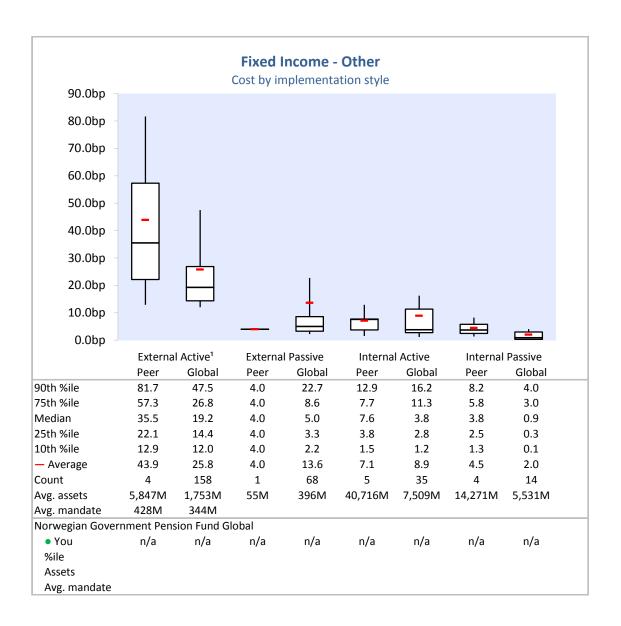
|                    |            | Peer        | Global  |
|--------------------|------------|-------------|---------|
|                    | You        | Average     | Average |
| Base fees          | n/a        | 53.2        | 54.7    |
| Performance fees   | n/a        | 26.7        | 6.4     |
| Internal and other | <u>n/a</u> | <u>16.3</u> | 2.0     |
| Total              | n/a        | 96.2        | 63.6    |



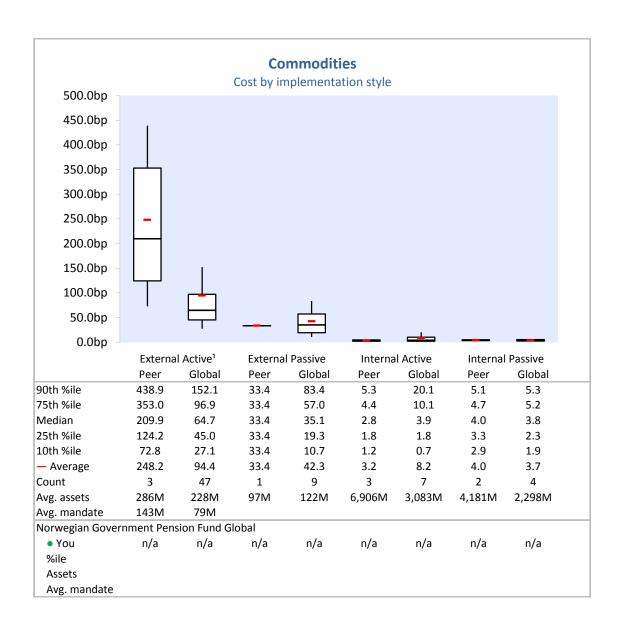
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 26.6        | 42.9       |
| Performance fees   | n/a        | 0.0         | 6.2        |
| Internal and other | <u>n/a</u> | <u>56.7</u> | <u>7.1</u> |
| Total              | n/a        | 83.3        | 56.1       |



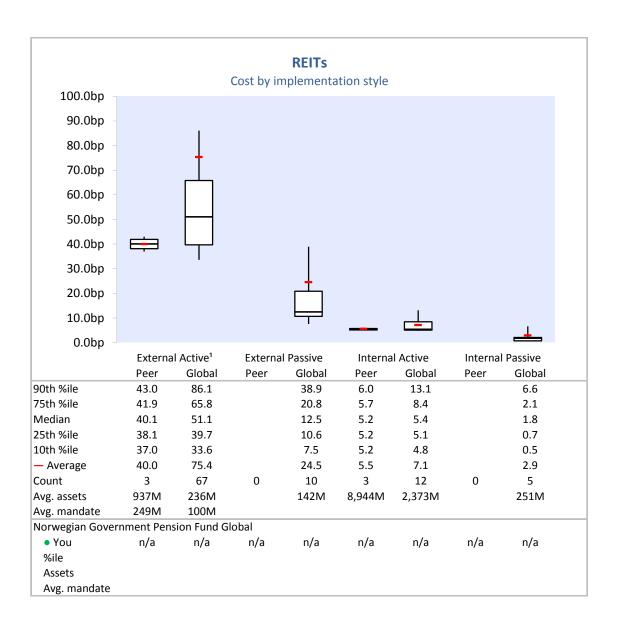
|                    |            | Peer       | Global     |
|--------------------|------------|------------|------------|
|                    | You        | Average    | Average    |
| Base fees          | n/a        | 67.9       | 184.5      |
| Performance fees   | n/a        | 62.4       | 15.9       |
| Internal and other | <u>n/a</u> | <u>4.5</u> | <u>3.7</u> |
| Total              | n/a        | 134.8      | 204.1      |



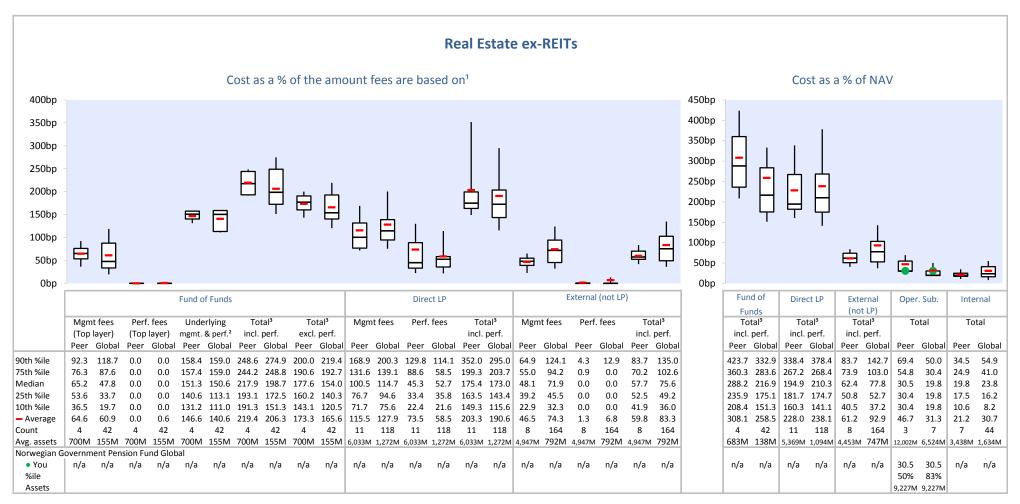
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 20.5        | 22.5       |
| Performance fees   | n/a        | 0.0         | 2.5        |
| Internal and other | <u>n/a</u> | <u>23.4</u> | <u>0.8</u> |
| Total              | n/a        | 43.9        | 25.8       |



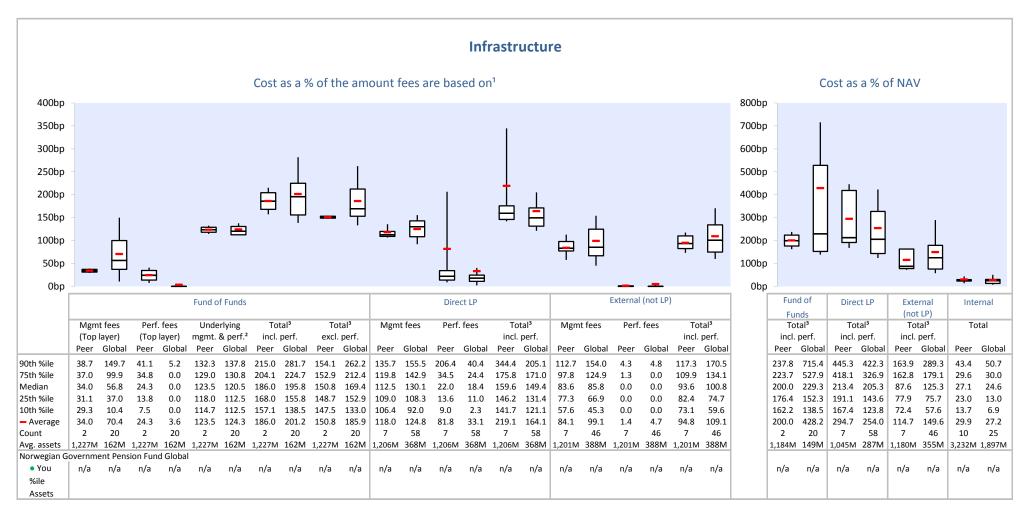
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 212.7       | 88.0       |
| Performance fees   | n/a        | 8.4         | 3.3        |
| Internal and other | <u>n/a</u> | <u>27.1</u> | <u>3.2</u> |
| Total              | n/a        | 248.2       | 94.4       |



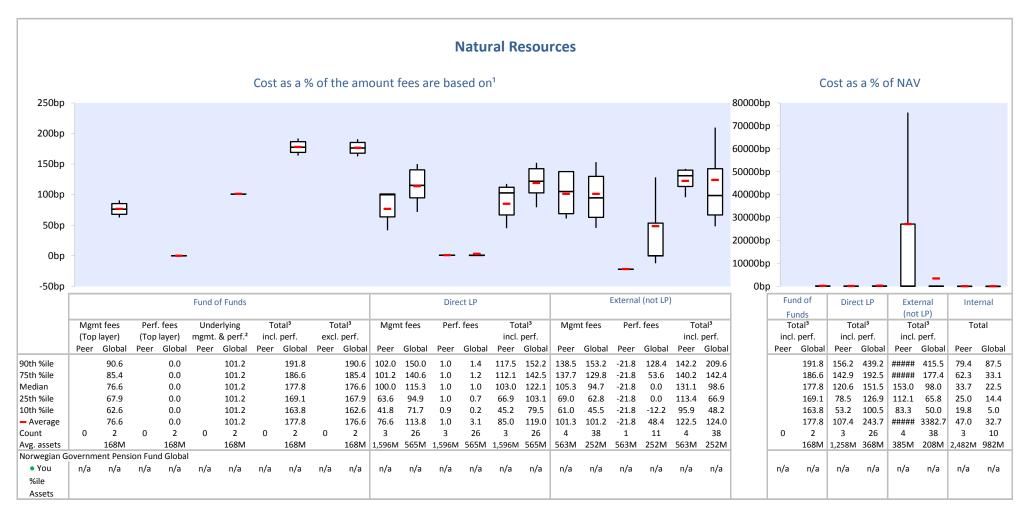
|                    |            | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | You        | Average     | Average    |
| Base fees          | n/a        | 26.5        | 73.7       |
| Performance fees   | n/a        | 0.0         | 0.5        |
| Internal and other | <u>n/a</u> | <u>13.5</u> | <u>1.1</u> |
| Total              | n/a        | 40.0        | 75.4       |



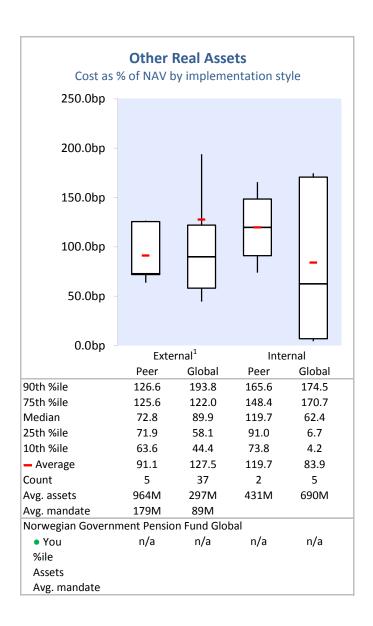
- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 101 bps (on amount fees are based on) for underlying management fees and 59 bps (on NAV) for underlying performance fees were used.
- 3. The total cost also includes the internal cost of monitoring and selecting real estate investments. The peer average cost of monitoring and selecting was 8.1 bps for fund of funds, 14.3 bps for LPs and 12.0 bps for external (not LPs).



- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 113 bps (on amount fees are based on) for underlying management fees and 24 bps (on NAV) for underlying performance fees were used.
- 3. The total cost also includes the internal cost of monitoring and selecting infrastructure investments. The peer average cost of monitoring and selecting was 4.3 bps for fund of funds, 19.3 bps for LPs and 9.4 bps for external (not LPs).



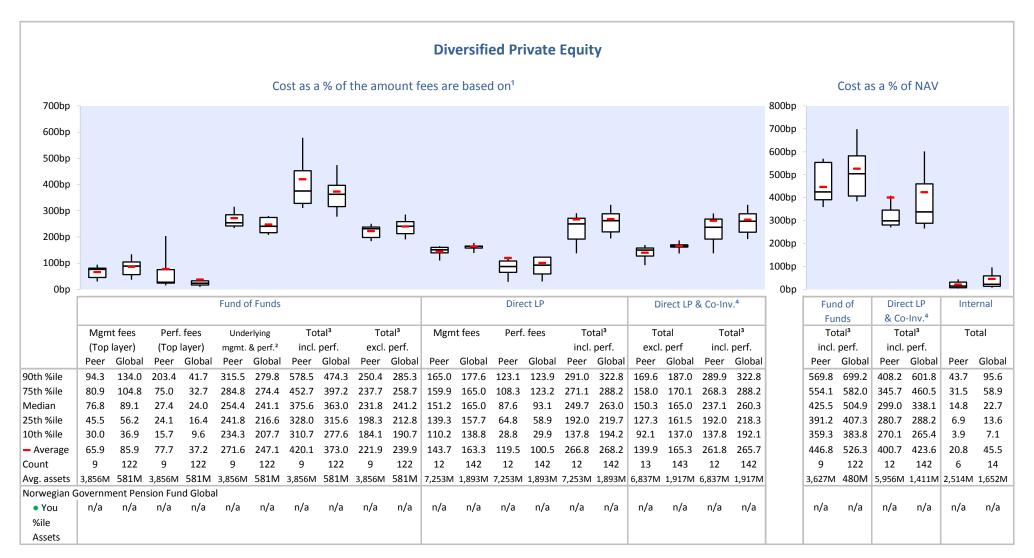
- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 100 bps (on amount fees are based on) for underlying management fees and 1 bps (on NAV) for underlying performance fees were used.
- 3. The total cost also includes the internal cost of monitoring and selecting natural resources investments. The peer average cost of monitoring and selecting was 7.4 bps for LPs and 26.6 bps for external (not LPs).



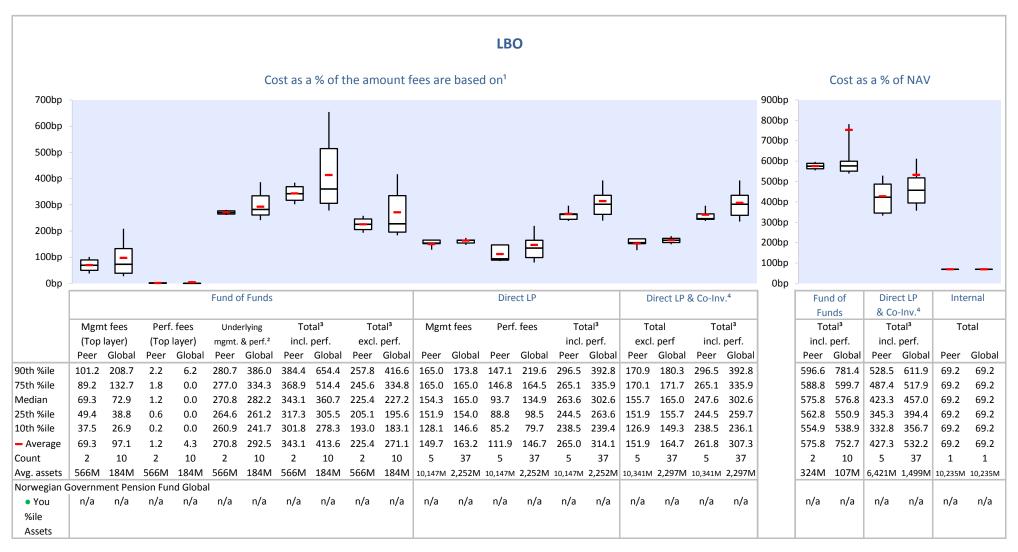
# 1. Breakdown of external fees

|                    | Your       | Peer        | Global     |
|--------------------|------------|-------------|------------|
|                    | Plan       | Average     | Average    |
| Base fees          | n/a        | 77.5        | 124.3      |
| Internal and other | <u>n/a</u> | <u>13.6</u> | <u>3.2</u> |
| Total*             | n/a        | 91.1        | 127.5      |
| Performance fees   |            | 4.7         | 4.9        |

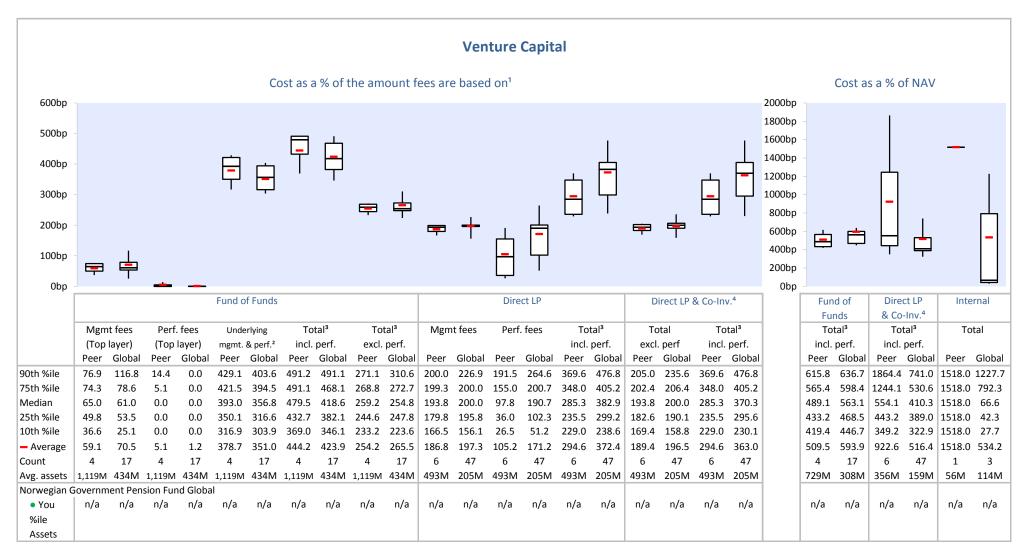
<sup>\*</sup> Total cost excludes performance fees because most participants did not provide performance fees for other real assets.



- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 151 bps (on amount fees are based on) for underlying management fees and 123 bps (on NAV) for underlying performance fees were used.
- 3. The total cost also includes the internal cost of monitoring and selecting private equity investments. The peer average cost of monitoring and selecting was 4.8 bps for fund of funds and 3.6 bps for LPs.
- 4. Co-investment is included with direct LPs because it can only be done alongside direct LPs. CEM uses this combined style in its benchmark cost analysis to ensure funds that reduce their costs by using co-investment receive benchmark credit. Co-investment is done by 2 of your peers and 11 of the Global funds.



- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 154 bps (on amount fees are based on) for underlying management fees and 196 bps (on NAV) for underlying performance fees were used.
- 3. The total cost also includes the internal cost of monitoring and selecting private equity investments. The peer average cost of monitoring and selecting was 1.8 bps for fund of funds and 3.5 bps for LPs.
- 4. Co-investment is included with direct LPs because it can only be done alongside direct LPs. CEM uses this combined style in its benchmark cost analysis to ensure funds that reduce their costs by using co-investment receive benchmark credit. Co-investment is done by none of your peers and 2 of the Global funds.

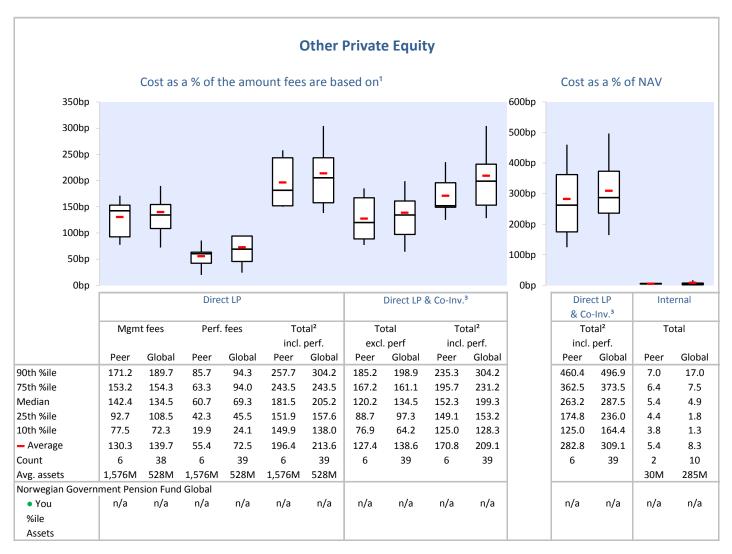


<sup>1.</sup> The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.

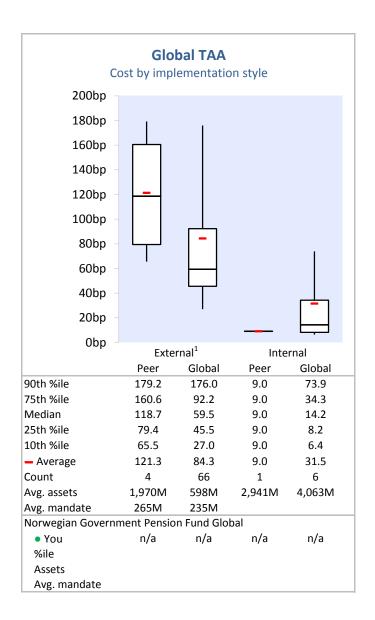
<sup>2.</sup> The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 194 bps (on amount fees are based on) for underlying management fees and 201 bps (on NAV) for underlying performance fees were used.

<sup>3.</sup> The total cost also includes the internal cost of monitoring and selecting private equity investments. The peer average cost of monitoring and selecting was 1.3 bps for fund of funds and 2.6 bps for LPs.

<sup>4.</sup> Co-investment is included with direct LPs because it can only be done alongside direct LPs. CEM uses this combined style in its benchmark cost analysis to ensure funds that reduce their costs by using co-investment receive benchmark credit. Co-investment is done by none of your peers and 2 of the Global funds.

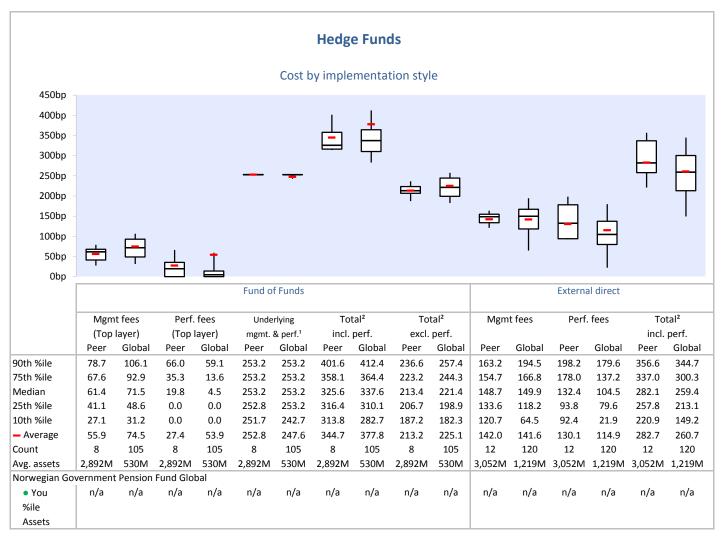


- 1. The base for fees is usually the committed amount during the commitment period, and unreturned invested capital afterwards.
- 2. The total cost also includes the internal cost of monitoring and selecting private equity investments. The peer average cost of monitoring and selecting was 10.6 bps for
- 3. Co-investment is included with direct LPs in CEM's benchmark cost analysis because it reduces the cost of investing in direct LPs. Co-investment is done by none of your peers and 1 of the Global funds.



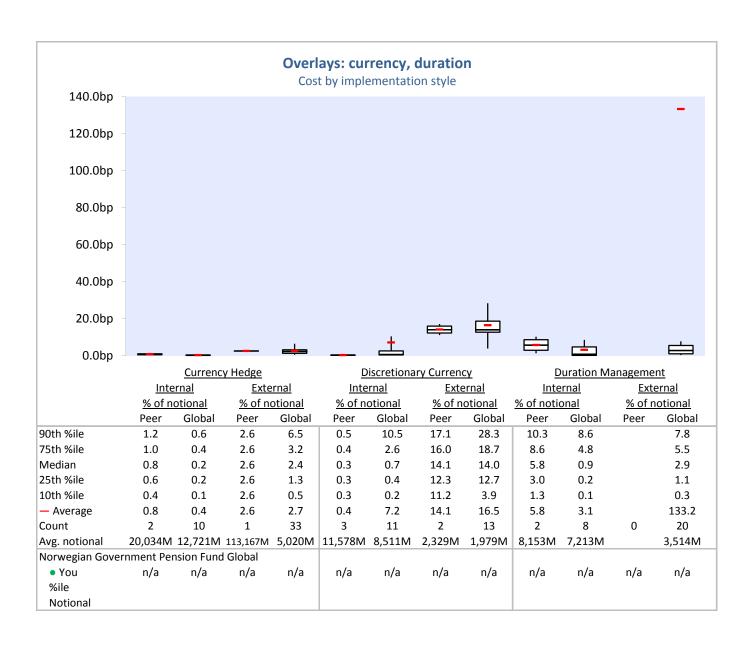
# 1. Breakdown of External fees

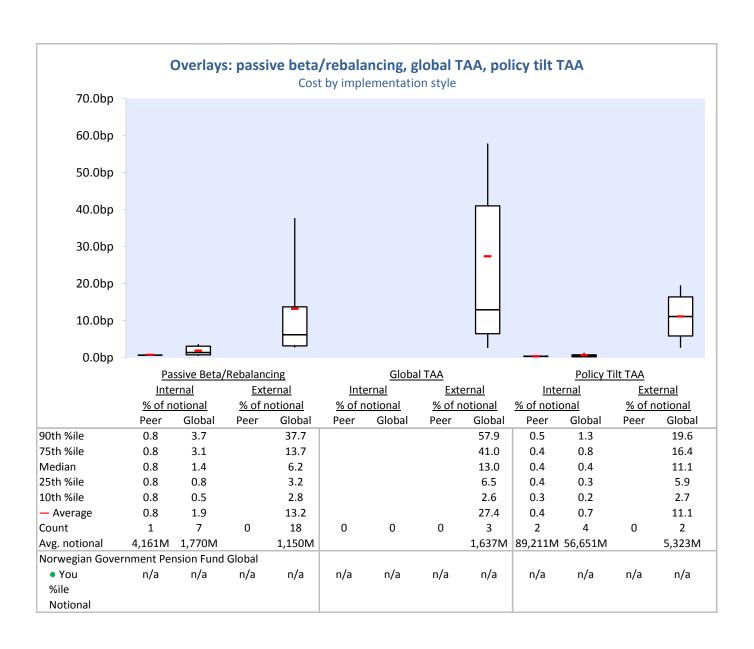
|                    | Your       | Peer       | Global  |
|--------------------|------------|------------|---------|
|                    | Plan       | Average    | Average |
| Base fees          | n/a        | 73.4       | 65.1    |
| Performance fees   | n/a        | 40.5       | 17.2    |
| Internal and other | <u>n/a</u> | <u>7.4</u> | 2.0     |
| Total              | n/a        | 121.3      | 84.3    |

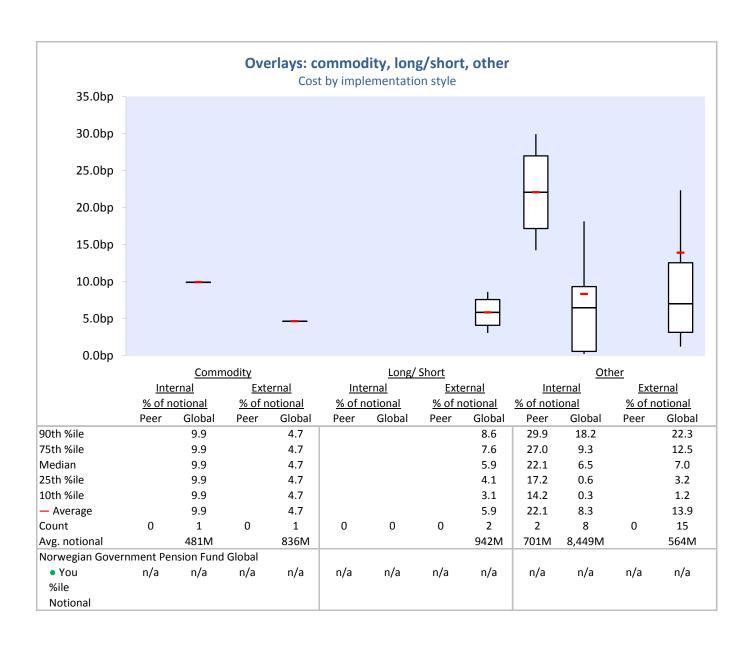


<sup>1.</sup> The fees of fund of funds include both the top layer fees paid to the fund of funds manager and the underlying fees paid to the 'underlying partnerships' held by the fund of funds. Most funds were unable to provide the underlying fees so defaults of 149 bps (on NAV) for underlying management fees and 104 bps (on NAV) for underlying performance fees were used.

<sup>2.</sup> The total cost also includes the internal cost of monitoring and selecting hedge fund investments. The peer average cost of monitoring and selecting was 8.6 bps for fund of funds and 10.6 bps for external direct.







# 8

# **Appendices**

Appendix A - Data Summary

Appendix B - Currency conversion

Appendix C - Data quality

Appendix D - Glossary of terms

# **Appendix A - Data Summary**

| Plan Info   | 2014         | 2013         | 2012         |
|---|--------------|--------------|--------------|
| Contact   | Kyrre Nilsen | Kyrre Nilsen | Kyrre Nilsen |
| Type of fund (corporate, public, other)                                 | Public       | Public       | Public       |
| Total fund size (mils) as at December 31                                | 708,824.0    | 602,613.0    | 520,056.0    |
| Asset-class level holdings provided on survey are: year end or average? | Average      | Average      | Average      |
| Total return for year ended   | 7.58%        | 15.95%       | 13.42%       |
| Is the return net or gross?   | Gross        | Gross        | Gross        |
| Total fund policy or benchmark return                                   | 8.30%        | 14.98%       | 13.24%       |

| Ancillary Data  | 2014    | 2013    | 2012    |
|---|---------|---------|---------|
| Do you lend securities?   | Yes     | Yes     | Yes     |
| If yes:   |         |         |         |
| % of income your custodian keeps for domestic lending?                  |         |         |         |
| % of income your custodian keeps for foreign lending?                   |         |         |         |
| Domestic net income in 000s   |         |         |         |
| Foreign net income in 000s  |         |         |         |
| Total net income (if breakdown not available) in 000s                   | 311,131 | 334,673 | 327,649 |
| Do you use any enhanced passive or tilt strategies?                     | n/a     |         |         |
| What is your hedging policy for:  |         |         |         |
| Foreign non-U.S. Holdings?  |         |         |         |
| Do you participate in directed brokerage programs (i.e., commission     |         |         |         |
| recapture and/or soft dollar?)  | n/a     |         |         |
| If yes:   |         |         |         |
| Gross amount of directed commissions in 000s?                           | n/a     |         |         |
| Amount recaptured by the fund in 000s?                                  | n/a     |         |         |
| Hard' cash value of invoices/services paid using soft dollars 000s?     | n/a     |         |         |
| What were your actuarial fees in 000s?                                  |         |         |         |
| How many plan members/beneficiaries do you have:                        |         |         |         |
| Active?   |         |         |         |
| Active (no-accrual)?  |         |         |         |
| Retired?  |         |         |         |
| Other?  |         |         |         |
| What type of plan(s) do you have?                                       |         |         |         |
| To what extent are your retired members' benefits indexed to inflation? |         |         |         |
| Contractual %   |         |         |         |
| Ad hoc %  |         |         |         |
| If the indexation is subject to a cap, describe the cap                 |         |         |         |
| What % of the plan's liabilities pertain to retired members?            |         |         |         |
| Actuarial valuation assumptions for funding purposes:                   |         |         |         |
| Liability discount rate   |         |         |         |
| Salary progression rate   |         |         |         |
| What was your actuarial assumption for expected rate of return?         |         |         |         |

# **Appendix A - Data Summary: Policy Weights and Benchmarks**

| Asset Class     |      | Policy Benchmark |  |        |
|-----------------|------|------------------|--|--------|
|                 |      | Weight           | Description  | Return |
| Stock - Global  | 2014 | 61.1             | Your Stock: Global benchmark                                 | 8.7    |
|                 | 2013 | 60.9             | Your Stock: Global benchmark                                 | 25.0   |
|                 | 2012 | 60.9             | Your Stock: Global benchmark                                 | 17.5   |
| Fixed Income -  | 2014 | 36.7             | Barclays Global Aggregate + Barclays Global Inflation Linked | 7.6    |
| Global          | 2013 | 38.1             | Barclays Global Aggregate + Barclays Global Inflation Linked | -0.2   |
|                 | 2012 | 38.4             | Barclays Global Aggregate + Barclays Global Inflation Linked | 7.0    |
| Real Estate ex- | 2014 | 2.2              | Custom (Actual)  | 10.4   |
| REITs           | 2013 | 1.0              | Custom (Actual)  | 11.8   |
|                 | 2012 | 0.7              | Custom (Actual)  | 5.8    |

# **Appendix A - Data Summary: Assets, Returns and Costs**

| Asset Class A         |      |           |        | ets (millions)     |        |                       | Fees/Costs in 000s |                  |                   |           |                      |           |                  |
|-----------------------|------|-----------|--------|--------------------|--------|-----------------------|--------------------|------------------|-------------------|-----------|----------------------|-----------|------------------|
|                       |      | Interr    | nally  | Externally Managed |        | Internally Externally |                    |                  | ally Manag        | / Managed |                      |           |                  |
|                       |      | Acti      | ve     |                    | Active |                       | Activ              | re               |                   |           | Active               |           |                  |
|                       |      |           |        |                    |        | # of                  |                    |                  | Base              | Perform   | Internal             | Total     |                  |
|                       |      | Assets    | Return | Assets             | Return | mgrs                  | 000s               | bps <sup>1</sup> | Fees <sup>3</sup> | Fees      | & Other <sup>3</sup> | 000s      | bps <sup>1</sup> |
| Stock - Global        | 2014 | 375,631.0 | 7.7    | 25,859.0           | 10.6   | 77                    | 81,998.0           | 2.2              | 50,165.0          | 77,696.0  | 4,326.0              | 132,187.0 | 51.1             |
|                       | 2013 | 335,784.0 | 27.1   | 20,662.0           | 13.5   | 60                    | 80,221.0           | 2.4              | 39,697.0          | 87,535.0  | 3,540.0              | 130,772.0 | 63.3             |
|                       | 2012 | 273,094.0 | 18.1   | 17,978.0           | 17.9   | 54                    | 66,616.0           | 2.4              | 35,380.0          | 41,110.0  | 3,184.0              | 79,674.0  | 44.3             |
| Fixed Income - Global | 2014 | 243,704.0 | 6.9    | 1,278.0            | 6.3    | 4                     | 25,671.0           | 1.1              | 3,153.0           |           | 180.0                | 3,333.0   | 26.1             |
|                       | 2013 | 206,663.0 | 0.1    | 168.0              | 17.2   | 2                     | 26,670.0           | 1.3              | 407.0             |           | 78.0                 | 485.0     | 28.9             |
|                       | 2012 | 190,049.0 | 6.6    | 624.0              | 31.7   | 1                     | 32,428.0           | 1.7              | 975.0             |           | 135.0                | 1,110.0   | 17.8             |

<sup>1.</sup> Cost in basis points = total cost / average holdings.

# Appendix A: Assets, Returns and Costs (cont.)

| Asset Class          |      | Assets (millions) and |            |               |      |           | Investment Fees / Costs in 000s <sup>1</sup> |      |      |         |          |                    |            |
|----------------------|------|-----------------------|------------|---------------|------|-----------|--|------|------|---------|----------|--------------------|------------|
|                      |      | Anı                   | nual Retui | ns            |      |           |  |      |      |         |          |                    |            |
|                      |      | Internal & Co-Inv     | E          | xternal       | #    | Inte      | ernal & Co-Inv                               | /    |      |         | External |                    |            |
|                      |      |                       | Amt fees   |               | Ext  |           | Total  |      | Base | Perform | Internal | Total <sup>1</sup> | bps (% of  |
|                      |      | Assets Return         | based on   | Assets Return | Mgrs |           | 000s   | bps  | Fees | Fees    | & Other  | 000s               | fee basis) |
| Real Estate ex-REITs |      | <u>Direct</u>         |            |               |      |           | <u>Direct</u>                                |      |      |         |          |                    |            |
|                      | 2014 |                       |            |               |      |           |  |      |      |         |          |                    |            |
|                      | 2013 |                       |            |               |      |           |  |      |      |         |          |                    |            |
|                      | 2012 |                       |            |               |      |           |  |      |      |         |          |                    |            |
|                      |      |                       |            |               |      | <u>Op</u> | erating Sub.                                 |      |      |         |          |                    |            |
|                      |      | Operating Sub.        |            |               |      | Under     | Oversight                                    |      |      |         |          |                    |            |
|                      | 2014 | 9,227.0 10.4          |            |               |      | 0.0       | 28,131.0                                     | 30.5 |      |         |          |                    |            |
|                      | 2013 | 4,881.0 11.8          |            |               |      | 7,807.0   | 13,672.0                                     | 44.0 |      |         |          |                    |            |
|                      | 2012 | 1,814.0 5.8           |            |               |      | 6,018.0   | 9,137.0                                      | 83.5 |      |         |          |                    |            |

<sup>1.</sup> Cost in basis points = total cost / average holdings. Total cost excludes private asset performance fees because of comparability issues.

# **Appendix A - Data Summary: Oversight, Custodial and Other Costs**

| Oversight, Custodial and Other Costs      |      |           |       |  |  |  |  |
|---|------|-----------|-------|--|--|--|--|
|   |      | 000s      | bps   |  |  |  |  |
| Oversight of the fund assets <sup>1</sup> | 2014 | 59,310.0  | 0.9bp |  |  |  |  |
|   | 2013 | 67,148.0  | 1.2bp |  |  |  |  |
|   | 2012 | 64,168.0  | 1.3bp |  |  |  |  |
| Custodial total                           | 2014 | 51,964.0  | 0.8bp |  |  |  |  |
|   | 2013 | 43,763.0  | 0.8bp |  |  |  |  |
|   | 2012 | 33,318.0  | 0.7bp |  |  |  |  |
| Custodial foreign (if available)          | 2014 |           |       |  |  |  |  |
|   | 2013 |           |       |  |  |  |  |
|   | 2012 |           |       |  |  |  |  |
| Custodial domestic (if available)         | 2014 |           |       |  |  |  |  |
|   | 2013 |           |       |  |  |  |  |
|   | 2012 |           |       |  |  |  |  |
| Consulting / performance measurement      | 2014 | 6,363.0   | 0.1bp |  |  |  |  |
|   | 2013 | 2,292.0   | 0.0bp |  |  |  |  |
|   | 2012 | 2,356.0   | 0.0bp |  |  |  |  |
| Audit                                     | 2014 | 4,314.0   | 0.1bp |  |  |  |  |
|   | 2013 | 4,667.0   | 0.1bp |  |  |  |  |
|   | 2012 | 4,464.0   | 0.1bp |  |  |  |  |
| Other (legal etc)                         | 2014 |           |       |  |  |  |  |
|   | 2013 |           |       |  |  |  |  |
|   | 2012 |           |       |  |  |  |  |
| Total                                     | 2014 | 121,951.0 | 1.9bp |  |  |  |  |
|   | 2013 | 117,870.0 | 2.1bp |  |  |  |  |
|   | 2012 | 104,306.0 | 2.2bp |  |  |  |  |

| Summary of All Asset Management Costs |      |           |       |  |  |  |
|---------------------------------------|------|-----------|-------|--|--|--|
|                                       |      | 000s      | bps   |  |  |  |
| Investment Management Costs           | 2014 | 271,320.0 | 4.1bp |  |  |  |
|                                       | 2013 | 259,627.0 | 4.6bp |  |  |  |
|                                       | 2012 | 194,983.0 | 4.0bp |  |  |  |
| Overlay Costs                         | 2014 |           |       |  |  |  |
|                                       | 2013 |           |       |  |  |  |
|                                       | 2012 |           |       |  |  |  |
| Oversight, Custodial & Other Costs    | 2014 | 121,951.0 | 1.9bp |  |  |  |
|                                       | 2013 | 117,870.0 | 2.1bp |  |  |  |
|                                       | 2012 | 104,306.0 | 2.2bp |  |  |  |
| Total                                 | 2014 | 393,271.0 | 6.0bp |  |  |  |
|                                       | 2013 | 377,497.0 | 6.6bp |  |  |  |
|                                       | 2012 | 299,289.0 | 6.2bp |  |  |  |

<sup>1.</sup> Oversight includes the salaries and benefits of executives and their staff responsible for overseeing the entire fund or multiple asset classes and the fees / salaries of the board or investment committee. All costs associated with the above including fees / salaries, travel, director's insurance and attributed overhead should be included.

# **Appendix B - Currency conversion**

Norwegian Government Pension Fund Global

All currency amounts have been converted to Euros using Purchasing Power Parity figures per the OECD. The table below shows the foreign exchange rates for the past 5 years.

| Currency conversion table    |       |       |       |       |       |  |  |
|------------------------------|-------|-------|-------|-------|-------|--|--|
|                              | 2014  | 2013  | 2012  | 2011  | 2010  |  |  |
|                              |       |       |       |       |       |  |  |
| United States Dollars - USD* | 0.777 | 0.773 | 0.806 | 0.801 | 0.799 |  |  |
| Canada Dollars - CAD         | 0.619 | 0.626 | 0.660 | 0.650 | 0.656 |  |  |
| Euro - EUR*                  | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| Sweden Kronor - SEK          | 0.088 | 0.090 | 0.091 | 0.090 | 0.089 |  |  |
| Swiss Franc - CHF            |       | 0.556 |       |       |       |  |  |
| United Kingdom Pounds - GBP  | 1.109 | 1.114 | 1.185 | 1.181 | 1.216 |  |  |
| Australia Dollars - AUD      | 0.518 | 0.525 | 0.552 | 0.513 | 0.525 |  |  |
| New Zealand Dollars - NZD    | 0.528 | 0.528 | 0.545 | 0.523 | 0.522 |  |  |

<sup>1.</sup> Source OECD website.

<sup>\*</sup> USD - Some participating Asia-Pacific funds report holdings and performance in USD.

EUR - Participating funds from Denmark and Norway report holdings and performance in Euros.

# **Appendix C - Data quality**

The value of the information contained in these reports is only as good as the quality of the data received. CEM's procedures for checking and improving the data include the following.

# Improved survey clarity

Twenty years of feedback from survey participants has led to improved definitions and survey clarity. In addition to immediate feedback from participants, CEM has hosted user workshops to solicit additional feedback and to resolve issues, such as trade-offs between more information and effort on the part of participants.

# Computer and desktop verification

Survey responses are compared to norms for the survey universe and to each sponsor's prior year data when available. This typically results in questions generated by our online survey engine as well as additional follow-up to clarify responses or with additional questions.

In addition to these procedures, data quality continues to improve for the following reasons:

# Learning curve -

This is CEMs 23rd year of gathering this data and experience is teaching the firm and the participants how to do a better job.

# Growing universe -

As our universe of respondents continues to increase in size, so does our confidence in the results as unbiased errors tend to average themselves out.

Any suggestions on how to futher improve data quality are welcome.

# **Currency Conversions**

For reports where either the peer group or report universe includes funds from multiple countries, we have converted the returns back to the base currency of the fund we prepared the report for. For example, for a Euro zone fund with peers from the U.S. we converted U.S. returns to Euro based on the currency return for the year using December 31 spot rates.

# **Appendix D - Glossary of terms**

# Average cost

- Calculated by dividing actual annual costs by the average of beginning and end-of-year holdings. If beginning-of-year holdings are not available, they are estimated using end-of-year holdings before the effect of this year's return on investment.

# Benchmark return

- Rate of return on a portfolio of investable assets (such as the S&P500) designated as the benchmark portfolio against which the fund measures its own performance for that asset class.

#### F statistics

- Measure of the statistical significance of the regression coefficients taken as a group. Generally, regression equations with 5 coefficients and sample sizes greater than 20 are statistically significant if its F statistic is greater than 3.

# **Global TAA**

- Fully funded segregated asset pool dedicated to active asset allocation.

# Impact coefficient

 Estimate of the impact on the dependent variable in a regression of a change in the value of a given explanatory variable

# Level of significance

- Degree to which sample data explains the universe from which they are extracted.

# N-year peers

- Subset of peer group that have participated in our study for at least the consecutive n years.

# Oversight of the fund

- Resources devoted to the oversight of the fund.

# Overlay

- Derivative based program (unfunded other than margin requirements), designed to enhance total portfolio return (such as a tactical asset allocation program) or to achieve some specific mandate such as currency hedging.

# **Passive proportion**

- Proportion of assets managed passively, i.e., indexed to broad capital market benchmarks or dedicated to replicate market benchmarks.

#### **Policy mix**

- Reflects long-term policy or target asset weights. Policy asset mix is often established by a fund's investment committee or board and is determined by such long term considerations as liability structure, risk tolerance and long term capital markets prospects.

# **Policy return**

- The return you would have earned if you had passively implemented your policy mix decision through your benchmark portfolios. Your policy return equals the sum of your policy weights multiplied by your asset class benchmarks for each asset class.

# R squared (coefficient of determination)

- The percentage of the differences in the dependent variable explained by the regression equation. For example, an R squared of 1 means 100% of the differences are explained and an R squared of 0 means that none of the differences are explained.

# Value added

- the difference between your total actual return and your policy return. It is a measure of actual value produced over what could have been earned passively.