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Norwegian Ministry of Finance

Survey on Active Management

Final report

MERCER

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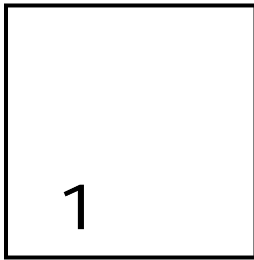


Executive Summary

Context

This Report was commissioned by the Ministry of Finance as part of an evaluation of the use of active management in the Government Pension Fund – Global. This evaluation has a number of strands one of which is a review of the beliefs and practices (of active management) of other similar funds globally. This review consisted of a survey based approach. The strength of such an approach is that it enables a deeper understanding of different approaches to active management based on a broad comparison of the key drivers of funds' policies in this area. The weakness of the approach is that it tends to abstract from the individual differences among funds making it difficult to identify the nuances and the history of the funds' both of which will have an important impact on the current policy. This survey does however attempt to draw out possible changes to the current approaches to get a sense of both static and dynamic elements.

This Report provides the results of a survey of the use of active management in other funds (large, long term investors of comparable size and complexity). More specifically, the survey examined:

i. the composition of active management;

ii. recent changes in the use of active management; and

iii. the performance in active management in recent years.

The funds were selected by Mercer and are perceived to be fairly representative of large and long horizon funds across the globe.

The key findings are summarised below.

Beliefs

- The majority of respondents believe that a) parts of their investment universe are inefficient and b) that they are well placed to exploit these efficiencies with a view to generating excess return (net of costs) over the equivalent passive benchmark.

- Respondents also believe that markets (not just securities) can move away from "equilibrium" values and that this is an opportunity to add value. However the approach to adding value varies. For some respondents tactical allocation decisions are part of their active "risk budget" and the funds seek to add value by making medium term (12-24 months) tactical bets with a view of adding value over their strategic asset allocation. For others their views are reflected in periodic changes to the strategic benchmark.

- Most of the respondents are of the view that exposures to systematic risk factors (for example, small cap equity) should be understood and managed either by limiting the exposures as part of the benchmark definition process or where the investment manager has been given discretion, to monitor and manage the extent and nature of the separate risk factors.

- The respondents on the whole believe that external providers have a valid role to play. The reasons vary but the prime motivation relates to the flexibility (this means different things to different funds) to access deep expertise.

- The respondents believe that their investment time horizon is a key comparative advantage in active management – this belief manifests primarily in the tolerance of strategies which are less liquid, but to different degrees.

- Other frequently quoted comparative advantages in active management is the ability to minimize costs and ability to build and retain internal expertise.

- The benefits of active management are deemed to be a) return enhancing and b) internal capacity building. Some respondents believe that active management is a useful risk diversifier but this is not a universal belief. Specifically there was no consensus on whether active management was a benefit (or otherwise) in market distress conditions.

- The respondents believe that their time horizon for assessing the degree of success does not reduce in market distress conditions. At the margin, there are some who believe that lengthening the period of evaluation of active managers would result in better outcomes.

- Their beliefs were not changed radically by the events of recent financial crisis ("the credit crunch"). The minority of funds (and for avoidance of doubt this is a factual comment and not a judgement) which have made a radical change had done so prior to last year.

- All the funds have some element of active management – only one has limited this exclusively to illiquid markets.

- The most important factors taken into consideration when reviewing the degree of active management, as identified by respondents, were the past active management experience of the funds in the asset class, any new information about the expected probability distribution of active management, or changes in the external environment.

Possible future actions

- As at the time of the survey, funds were not planning on major changes to the level of their active risk budgets. They were however not complacent in that a number of changes were planned as a result of the events of the recent financial crisis that could be characterised as governance-related changes designed to enhance the allocation of their risk budgets. Respondents were seeking to enhance the risk control of their active management in terms of understanding better the underlying risk factors and evaluating metrics used to attribute performance. More particularly, respondents were inclined towards increasing their exposures to less liquid strategies and to decrease exposures to leveraged strategies.

- The funds did anticipate making some asset allocation changes over the medium term. Listed developed equities are expected to be less important in the portfolio in three or five years. The decrease in allocation to listed developed equities may

impact favourably allocations to emerging market equities, small cap equities and to some extent alternative asset classes. The allocation to government bonds is expected to remain stable in the next three to five years.

- Respondents were also considering additional in-sourcing of actively managed assets.
- Four respondents are inclined to favour fundamental approaches to active management relative to what are loosely called “quantitative” approaches. Nine respondents are also re-evaluating the financial terms with active managers.

Performance

- Total fund excess returns have varied considerably among respondents, but have generally been positive except for the extreme negative excess returns in 2008.
- Total equity excess returns have generally been very low or negative since 2004, except for 2005 and 2008. The dispersion in excess returns experienced by respondents widened considerably in 2008.
- As expected, respondents generally demonstrated less variability of excess returns for bonds than equities. Large excess negative bond returns were experienced by certain respondents in the lead up and during the global financial crisis. Excess returns are likely to have rebounded in 2009.

Caveats

- This report suffers from the usual sample bias errors and is reflective of responses at a specific point in time from a select number of funds. However the responses have been completed by senior representatives at the funds canvassed and, as such, is reflective, we believe, of current thinking and sentiment. The survey does capture responses from different parts of the world and as such is not regionally biased. We believe that as far as beliefs and responses to the recent financial crisis is concerned, the responses are reasonably representative of current thinking amongst this universe of investors. We believe however that the survey is less representative of the actual performance outcomes amongst this universe of investors.

2

Definition of active and passive management

2.1 **Passive management** is an approach to investment management which aims to replicate a particular market index or benchmark with a view to achieving the market return at lowest possible costs. In the case of global equities, such benchmarks normally weight allocations to regions and countries according to their respective market capitalisation as a proportion of global equity market capitalisation. Similarly, the weights assigned to particular stocks within a country are determined on the basis of the capitalisation of the company as a proportion of the total capitalisation of the market.

2.2 **Active management** is an approach to investment management which aims to outperform a particular market index or benchmark. The belief underlying the approach is that a) parts of the benchmark (for example, a sector or a stock) are "mis-priced" (being "too cheap" or "too expensive" relative to its equilibrium value) and b) that the investor has superior insight that allows it to profit from such mis-pricing net of costs.

The objective of delivering net excess returns compared to the return on a chosen benchmark (after management fees) requires giving the portfolio manager an agreed level of discretion to:

- overweight or underweight securities / sectors / countries in the benchmark; in most circumstances the minimum investment will be zero, in some circumstances the manager may be allowed to have a negative (be short) exposure relative to the benchmark index;
- invest in securities and instruments that fall outside the benchmark portfolio; and
- overweight or underweight certain risk factors such as value, small-cap, etc.

The aggregate deviation from the benchmark index can be captured in a single metric called the tracking error. This is indicative of the overall "risk" relative to the benchmark index. Implied in this metric is that the benchmark risk level is the investor's default level of risk. In some instances, this is used to measure the overall discretion afforded to the portfolio manager.

With regard to investment strategies, active management encompasses a broad range of strategies. These range from very constrained approaches that provide strict bounds around benchmarks (for example, enhanced indexation) to absolute return strategies with few, if any, reference to a benchmark.

Background and Purpose of the Survey

3.1 Context

The Ministry of Finance is carrying out an evaluation of the use of active management in the Government Pension Fund - Global. There are a number of strands to this evaluation, including an overview and status for the use of active management in other large funds with similar characteristics such as large public pension funds and Sovereign Wealth Funds.

Norges Bank (through Norges Bank Investment Management, NBIM), in its management of the Government Pension Fund – Global, has the discretion to deviate from the benchmark portfolio within a defined upper limit on expected tracking error, given that they adhere to the qualitative requirements set out in the management regulations. For the Government Pension Fund – Global, from 1998 till 2006 the returns from active management were positive. For 2007 and 2008, during which the markets were gripped by the financial crisis, the returns from active management were negative.

3.2 Objectives

The Ministry seeks to evaluate the use of active management in other large funds with similar characteristics: i.e. investors with a long-term investment horizon and significant size of assets under management.

More specifically, the Ministry has asked Mercer to undertake a survey of:

- The use of active management;
- Recent changes in the use of active management, in particular to reflect the financial market events of 2008 and the early part of 2009; and
- Actual performance in active management in other funds in recent years.

The aim of the survey was to address the key questions above but to do so within the broader context of the respondents overall investment approach.

3.3 Methodology

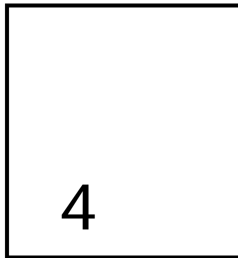
Mercer identified a list of funds with similar characteristics to the Government Pension Fund – Global that were willing to participate in the survey. The funds were asked to complete the survey which consisted of a number of questions on a number of topics. The strength of the approach is the ability to capture high level information on the directionality of funds' thinking but like most surveys the weakness is the difficulty of capturing nuance and history.

The survey, based on a qualitative and quantitative questionnaire, was designed to compare the funds' approaches to the following:

- guiding philosophy on active management at the fund level;
- use of active management at the fund level;
- use of active management at the asset class level;
- implementation of active management;
- how active management is evaluated;
- assessment of actual ex-post performance of similar funds compared to their benchmark.

Qualitative questions were aimed at understanding the views of the funds on active management, and quantitative questions were designed to draw out the investment policy and performance of the funds.

In addition to this bespoke qualitative and quantitative questionnaire, Mercer has performed a comparison of the Funds' performance against an analysis of active manager returns available in its in-house database *Mercer Performance.* This is included in Appendix B



Key characteristics of the participants to the survey

4.1 Overview of the respondent group

14 funds completed the qualitative survey. Among these fourteen funds, historic performance data was available from 9 funds (at varying levels of detail).

The combined assets under management of respondents exceeded USD 950 billion (equal to about NOK 5 000 billion). As at end-June 2009, the largest fund managed about USD 300 billion, and the smallest one managed USD 9 billion. The average size of funds was USD 73 billion at the same date. In comparison, the size of the Government Pension Fund – Global as of end-June 2009 was USD 374 billion.

The map below illustrates the geographical breakdown:

- eight funds from Europe;
- three funds from North America;
- one fund from the Gulf region; and
- two funds from Asia.

Listed below are the respondents who consented to their names being disclosed.

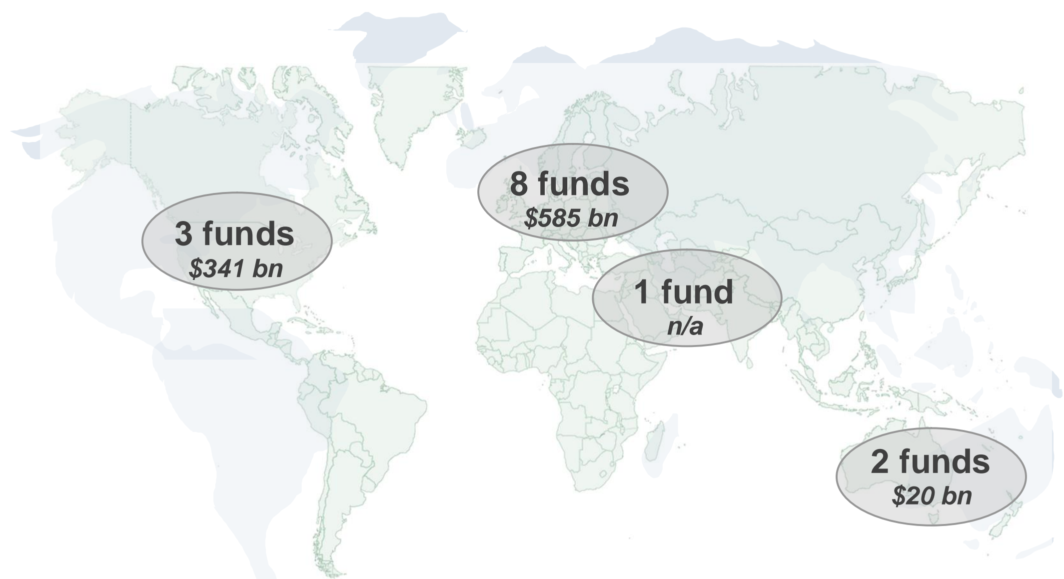


Table one

Name of the fund	Country	Year of inception
National Civil Servant Pension Fund (ABP-APG)	Netherlands	ABP: 1920 APG: 2008
First Swedish National Pension Fund (AP1)	Sweden	1959
Third Swedish National Pension Fund (AP3)	Sweden	2001
Fourth Swedish National Pension Fund (AP4)	Sweden	2001
Seventh Swedish National Pension Fund (AP7)	Sweden	2000
California Public Employees' Retirement System (CalPERS)	United States	1932
California State Teachers' Retirement System (CalSTRS)	United States	1913
Reserve Fund for Retirement Pensions (FRR)	France	2004
Government Employees Superannuation Board (GESB)	Australia	n/a
National Pensions Reserve Fund of Ireland (NTMA)	Ireland	2001
New Zealand Superannuation Fund (NZSF)	New Zealand	2003
Dutch Pension Plan (PGGM - PFZW)	Netherlands	1905

To properly interpret the investment policy of a fund, it is important to understand its mission and liabilities, whether expressed or implicit. In some cases, funds may have explicit liabilities such as to pay for retirement pensions and health benefits. In other cases, funds have long term wealth accumulation objectives and are less constrained by future cash outflows.

As indicated below, thirteen respondents are either directly or indirectly investing for pension related obligations. The remaining fund, which declined to be named, is a long term accumulation fund very similar to the Norwegian Government Pension Fund - Global.

Table two

Fund	Country	Primary role of the fund
ABP-APG	Netherlands	To provide pensions to civil servants at retirement age.
AP1	Sweden	To act as a buffer in the Swedish pensions system.
AP3	Sweden	To act as a buffer in the Swedish pensions system.
AP4	Sweden	To act as a buffer in the Swedish pensions system.

Fund	Country	Primary role of the fund
AP7	Sweden	To manage the premiums received by income-earners in Sweden to finance their pensions.
CalPERS	United States	To provide retirement and health benefits to public employees, retirees, and public employers in California.
CalSTRS	United States	To provide retirement benefits to teachers in public schools and community colleges in California.
FRR	France	To cover a significant portion of the funding needs of the Social Security pensions scheme after 2020.
GESB	Australia	To manage the superannuation and retirement savings of Australian workers.
NTMA	Ireland	To manage Irish Government funds such as the Social Insurance Fund and the Dormant Accounts Fund.
NZSF	New Zealand	To supplement the Government's budget as the cost of pensions will increase.
PGGM - PFZW	Netherlands	To provide income protection for professionals within the healthcare and social work sector.
Fund X	North America	To provide pensions to municipal employees at retirement age.
Fund Y	Gulf Region	To achieve long term investment returns on financial reserves.

4.2 Strategic asset allocation of respondents

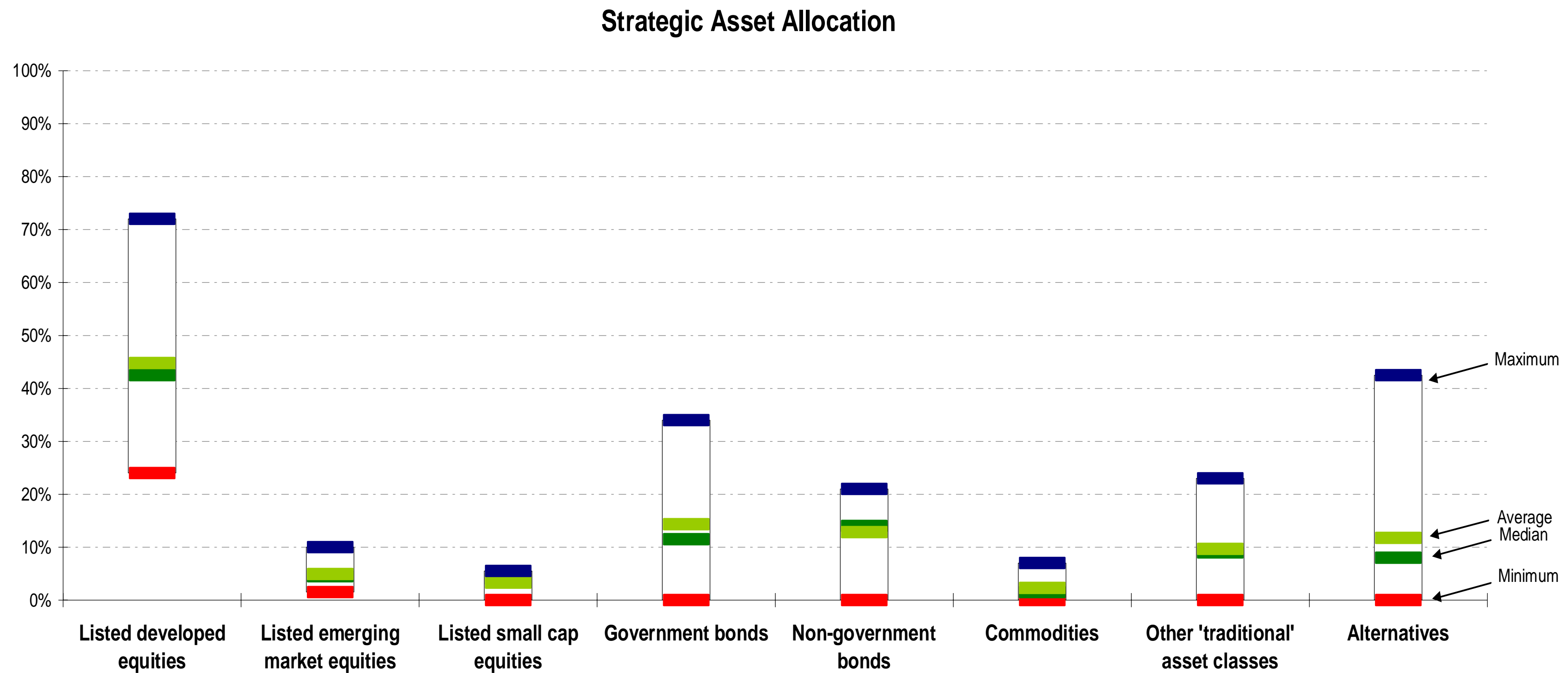
The strategic asset allocation is determined with reference to the specific risk and return objectives of each fund taking into consideration, where relevant, the expected long term future liabilities of the fund.

Some funds are more constrained than others in taking on risk, depending on the funding level, the length of the investment horizon and the level of contributions.

Consistent with the investment opportunity set - respondents' investments are biased to the traditional assets, in particular listed developed equities, government and non-government bonds. Five respondents also allocate a significant proportion (more than 10 per cent of the total portfolio) of their portfolio to alternative investments. Listed emerging market equities and listed small capitalisation equities were not always separately identified.

Chart one below summarises the strategic asset allocations of the respondents.

Chart one



Note: One fund did not complete this section of the survey

4.3 Internal vs. external management

The funds were asked about their use of external managers, and the key drivers for the use of external management identified by respondents were:

i. To provide greater flexibility to enter new markets and adopt different strategies without the lead times associated with building internal capability.

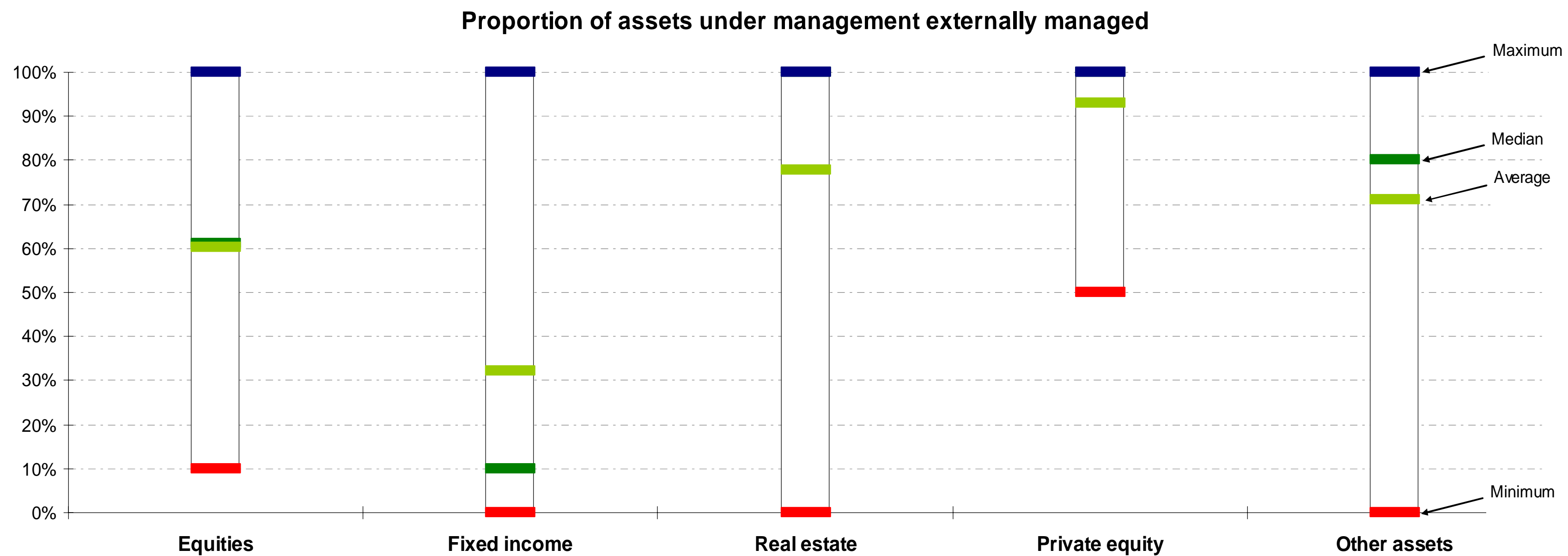
ii. External management is also a way to diversify active management risk.

iii. External management provides greater flexibility to terminate underperforming mandates.

However there was some divergence of views. A couple of respondents ranked lack of internal knowledge or resources as the least important reasons for external active management. For these funds, key drivers for external management were diversification of active management and introducing a competitive element to the internal management.

Chart two below summarises the perspective on external management within the respondent group.

Chart two



Note: Two respondents are required by law to outsource their asset management activities/operations. We note that one fund did not complete this section of the survey

The key points of note were:

- A significant proportion of the listed equity allocation is outsourced to external managers. Closer examination however reveals that there is a scale effect - investors with more assets under management rely more on internal management. This is specifically the case for equities.
- Respondents tended to rely more on internal resources for fixed income investments. Apart from the two respondents legally required to use external asset management, only one fund outsources more than one third of its fixed income investment management.
- Private equity management is mostly outsourced.
- Similarly, real estate is fully outsourced by 9 respondents out of 13. It is worth noting though that 2 respondents have decided to completely internalize the investment management of this asset class.

4.4 Degree of active management in each asset class

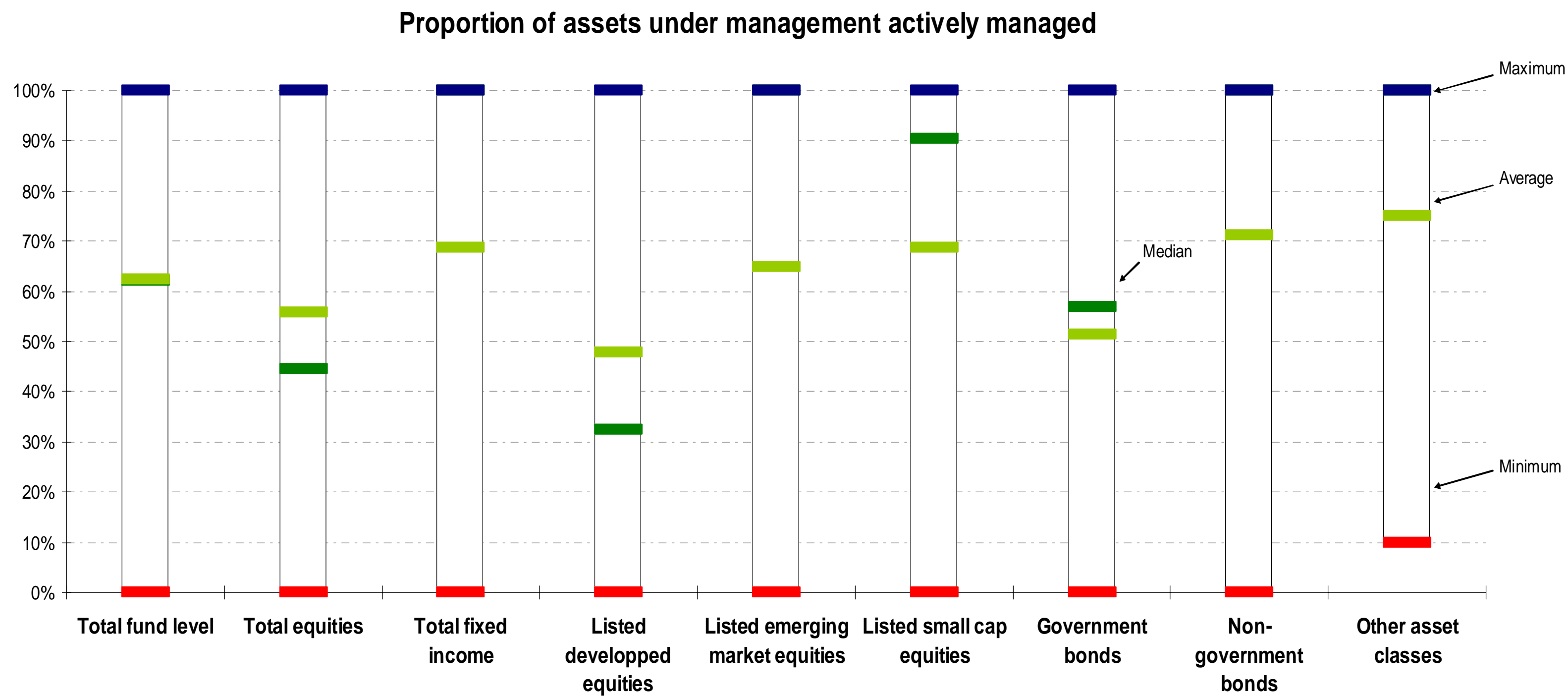
As can be seen from Chart three below, respondents indicated a high degree of variability in the proportion of each asset class dedicated to active management.

Two respondents implement active management across all asset classes. Two other respondents invest less than 2 per cent of their assets in passive strategies.

A minority of respondents focus most of their active management in the more complex, less liquid asset classes. In general, less active management is implemented in the most liquid markets (for example, listed developed equities) and more on less liquid assets (for example, non-government bonds, small cap equities and emerging market equities).

Chart three below summarises the degree of active management across various asset classes.

Chart three



Note: Two respondents did not answer this section of the survey

Approach and role of active management

5.1 Philosophical perspective on active management

Most respondents believe that a) part of the investment opportunity set is inefficient or is inefficient from time to time, and b) they can extract excess returns (net of management costs) by using appropriate strategies.

A minority view is that markets exhibit market inefficiency, but that this is not a sufficient condition for extracting excess returns. This is especially the case for the liquid parts of the market. Even for these funds there is a recognition that complex and illiquid asset classes could benefit from active management.

There was wide dispersion of views on the role of active management. On the whole, active management was seen as a return enhancer. Certain respondents were also of the belief that active management diversified risk but this was not a universal belief. Active management was deemed to be helpful in assisting funds in making benchmark decisions in sub-asset classes, in effect by outsourcing sub-asset class benchmark decisions. It was also a way of building internal capacity (understanding and skill) as a stepping stone towards investing in new asset classes.

5.2 Comparative advantages in relation to active management

Having a long term investment horizon, the ability to tolerate illiquid investments and build and retain internal expertise were deemed to be comparative advantages of the respondents. Having a strong negotiating position was also deemed to be comparative advantage but the responses were more equivocal. There was less agreement still on whether scale itself was an advantage. There was some disagreement with, and little support for, the proposition that the requirement for frequent reporting provided a comparative disadvantage (the hypothesis being that the frequency of reporting may result in more “career” risk resulting in sub-optimal decisions).

5.3 Expectations from active management

The most common timeframe for evaluating active listed equity and bond performances is three years, although responses ranged from one to five years. Illiquid asset classes such as real estate and private equity returns are usually evaluated over a longer time horizon.

The excess return expectations varied widely (and we have to allow for even more sample bias given the lower number of respondents for this part of the survey). As can be seen in Chart four below, although information ratios for equities were on average higher than for fixed income, the sub-asset class information ratio expectations were arguably counterintuitive (small capitalisation equities information ratios being lower than general listed equity). It is difficult to draw meaningful conclusions from these results.

The average expected information ratio at fund level is about 0.35. The target risk level is an average tracking error of about 2%, with the range being 1% to 5%. Not all the funds approach this issue in tracking error terms – some have tracking risk budgets at asset class level but not at fund level. One respondent has a tracking error of 5% at fund level – we believe reflective of the specific approach of that fund.

Chart four below plots the distribution of information ratios:

Chart four

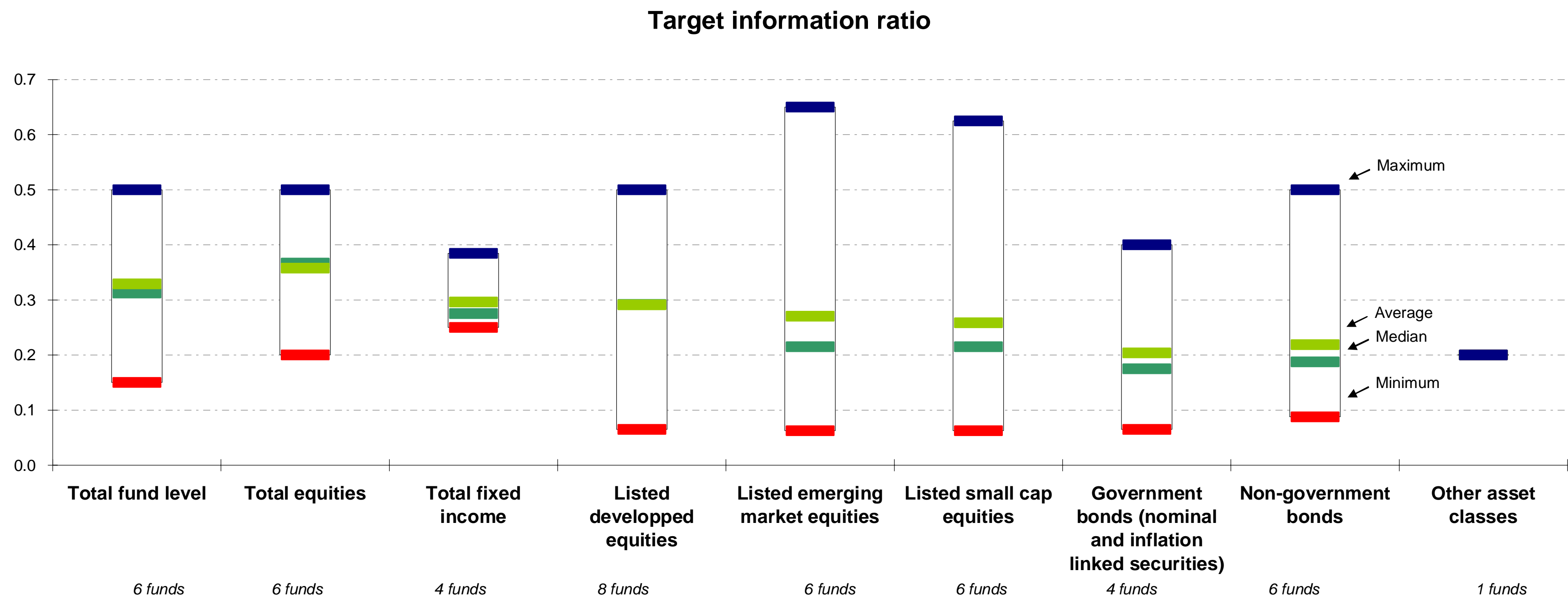


Chart five, below, plots the distribution of the risk and return expectation from active management of the fixed income portfolios.

Chart five

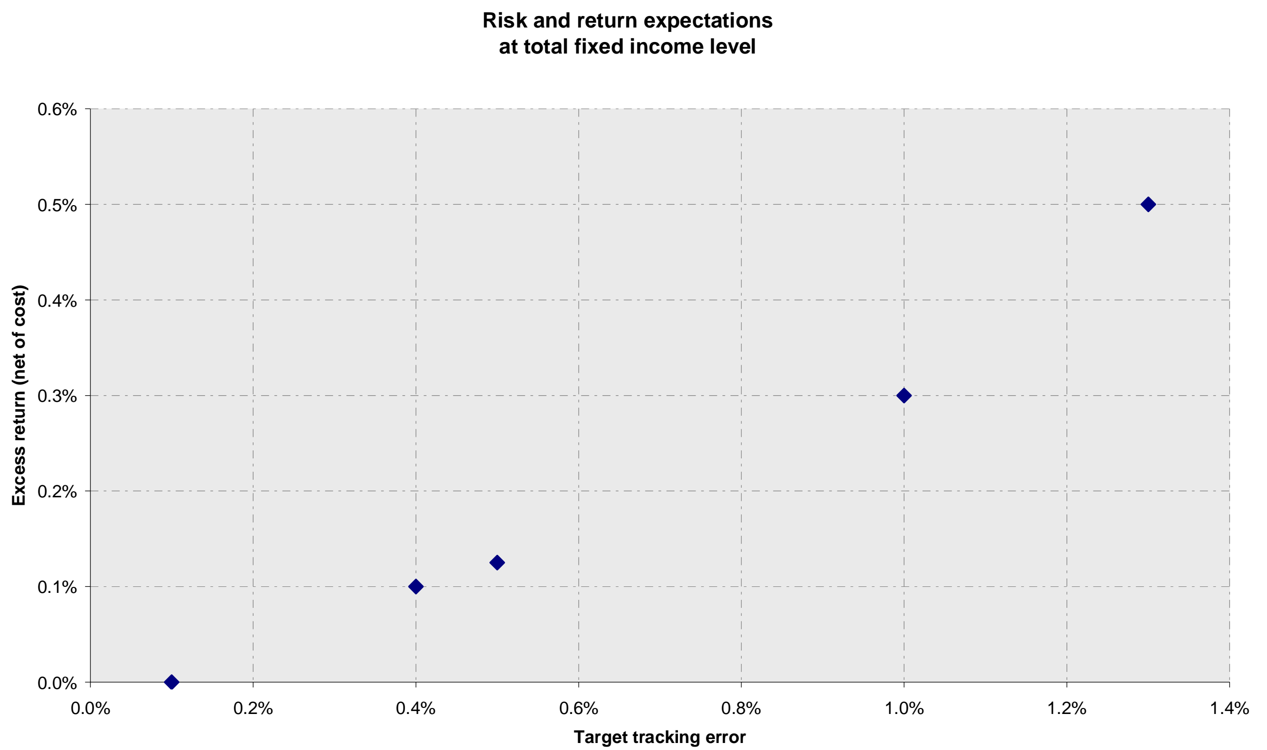
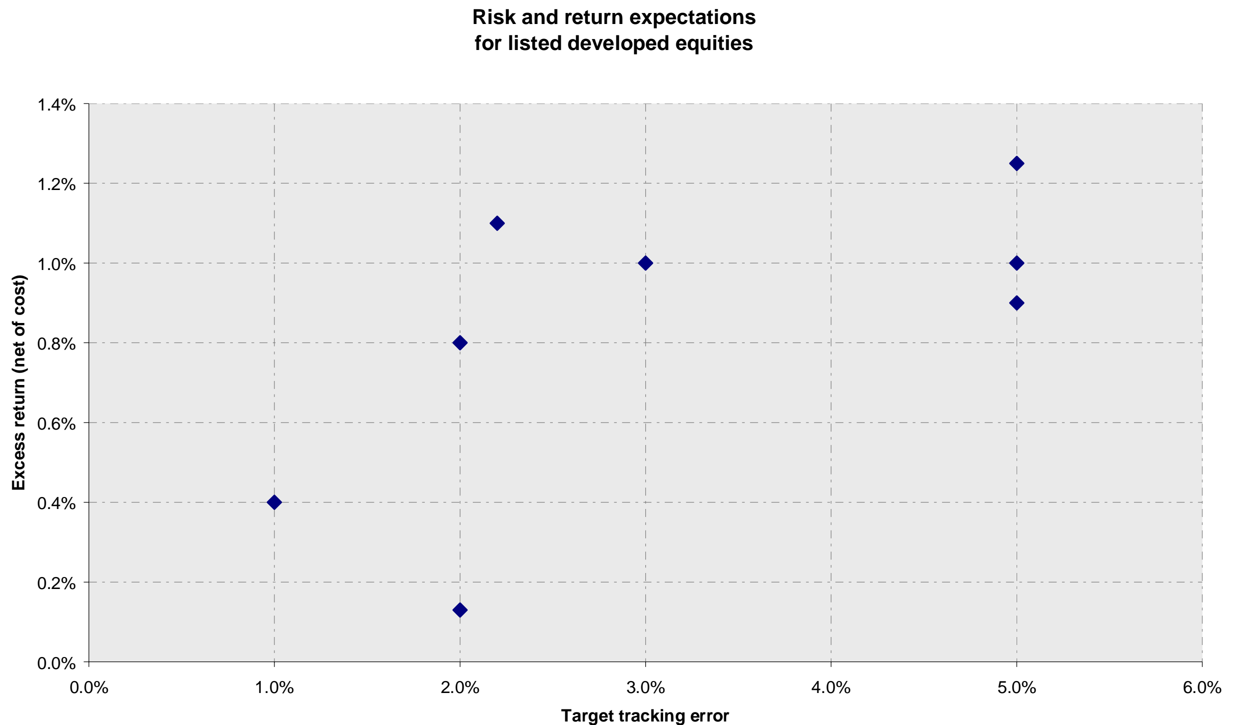


Chart six below plots the risk and return expectation from active management of developed equities.

Chart six



The responses did not lend support to the proposition of an over-emphasis on short term performance within such funds. In fact more respondents disagreed than agreed with the proposition that a time horizon for evaluating active management performance is shorter than optimal.

5.4 Evaluation of active management and triggers for change

When reviewing the degree of active management, the most important factors respondents consider are:

- past active management experience of the fund and other investors in the asset class,
- new information about the expected probability distribution of active management,
- a change in the external environment; and
- the governance capacity to deploy active management.

While a passive strategy is expected to perform in line with the index benchmark, it does not provide a buffer against sharp falls in market returns. On this basis, passive management is not risk-free in absolute terms and tracking error is an incomplete measure of risk associated with such strategies. However, most respondents did not consider that a pure replication strategy was too risky compared to a more active approach.

5.5 In house active management: key factors of success

There was wide divergence of opinion among respondents on the drivers for success of in-house active management. Those drivers may be considered within four categories: people, research, costs and style/strategy and risk management.

5.5.1 People

It was acknowledged that a key component of success in active management is either employing skilled people or having access to skilled managers. In the context of in-house active management, large and long term funds compete with various financial entities to attract investment professionals able to generate excess return. The funds were of the view that their key comparative advantage in getting access to skilled managers was their 'brand' name and reputation. Compensation was deemed on the whole to be a mild disadvantage. Respondents recognise that they struggle to attract and retain on to 'star' portfolio managers.

5.5.2 Research

Another key component of success is the generation of, or access to, superior research. A majority of respondents were of the view that they receive superior access to world class advisers and research. A few respondents considered they received good access to the companies in which they invest.

5.5.3 Management costs

The ability to negotiate low fees on active management was identified by respondents as a clear factor of success. There was no clear conclusion as to whether respondents were able to achieve lower transaction costs.

5.5.4 Style/strategy and risk management

The ability to implement their active management strategy in a disciplined fashion, the ability to understand and control aggregate risk and the strength of their risk management systems were considered by the majority of respondents as factors contributing to their success.

Despite it being identified as a comparative advantage, there was a surprisingly wide variability in responses in relation to the ability to take positions with significant liquidity risk.

On average, respondents did not consider they had superior access to quality IPOs.

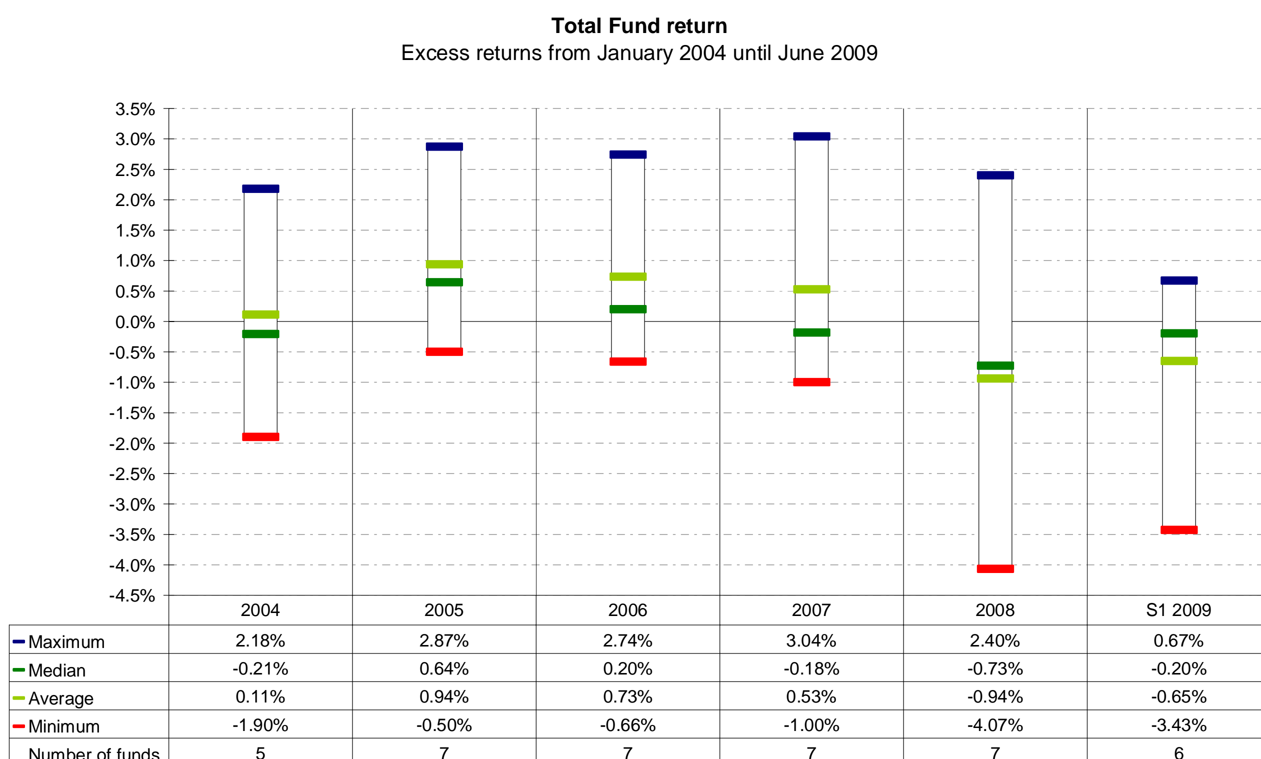
5.6 Track records: does active management generate added value for large, long term funds?

Responses were more limited in this area with data on 9 funds provided with varying levels of detail. As shown in chart seven below the performance charts, the number of responses varies for each time period. One respondent has not set a benchmark for the total portfolio, but only for the sub-asset classes. Another respondent has not set a benchmark for the total equity part of the portfolio, but only for sub-equity classes.

As can be seen in Chart seven below, total fund excess returns have varied considerably among respondents, but have generally been positive except for the extreme negative excess returns in 2008.

Data from CEM[1] suggests a "peer average" return of -0.7% over 2008, this is consistent with the median fund level return -0.7% and an average fund level return of -0.9% from our survey.

Chart seven



	2004	2005	2006	2007	2008	S1 2009
Maximum	2.18%	2.87%	2.74%	3.04%	2.40%	0.67%
Median	-0.21%	0.64%	0.20%	-0.18%	-0.73%	-0.20%
Average	0.11%	0.94%	0.73%	0.53%	-0.94%	-0.65%
Minimum	-1.90%	-0.50%	-0.66%	-1.00%	-4.07%	-3.43%
Number of funds	5	7	7	7	7	6

As can be seen in Chart eight below, total equity excess returns have generally been very low or negative since 2004, except for 2005 and 2008 when variations in excess returns experienced by respondents widened considerably (including highly positive excess returns).

Data from CEM[2] on value added suggests an overall equity "peer return" of 0% in 2008. Data from our universe of investment managers (see Appendix B – Mercer Performance Analytics for more details) suggests a median return (in USD terms) of -1.0% for large cap global equities and -1.8% for global small cap equities. Investors with a structural bias to small cap and emerging markets would have been negatively impacted in 2008 (and positively for 2009 so far).

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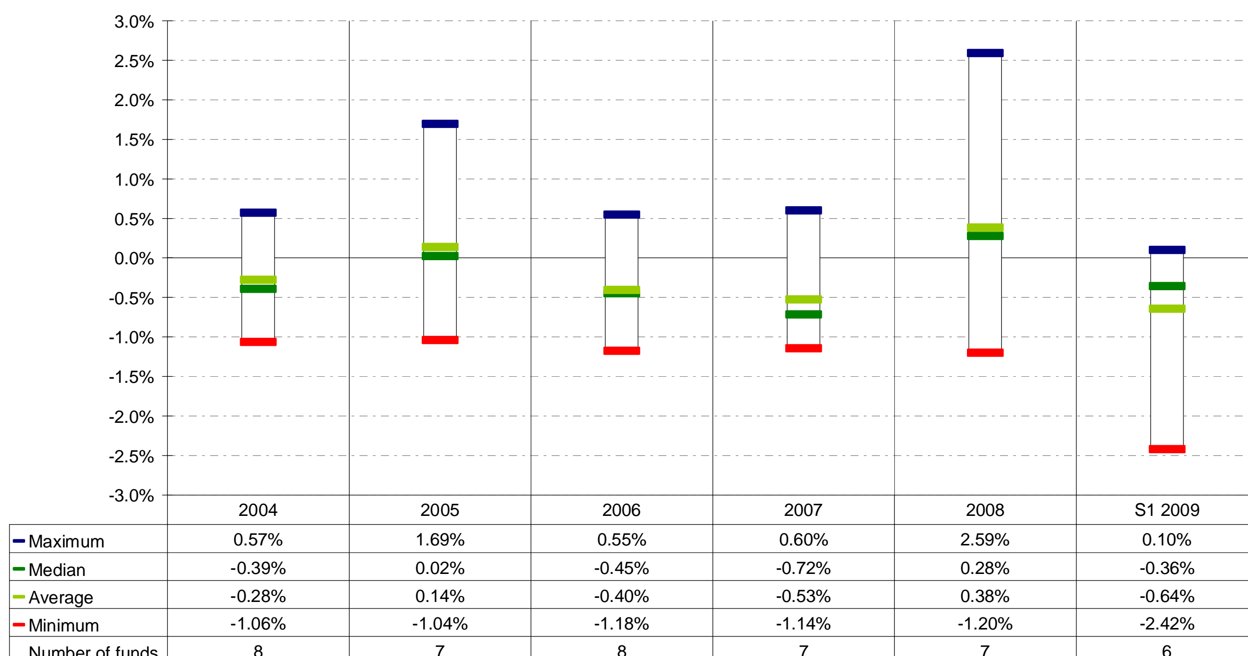
[1] Defined Benefit Investment Cost Effectiveness Analysis. Norwegian Government Pension Fund – Global. CEM Benchmarking Inc. 2009.

[2] Defined Benefit Investment Cost Effectiveness Analysis. Norwegian Government Pension Fund – Global. CEM Benchmarking Inc. 2009

Chart eight

Total Equity return

Excess returns from January 2004 until June 2009



	2004	2005	2006	2007	2008	S1 2009
Maximum	0.57%	1.69%	0.55%	0.60%	2.59%	0.10%
Median	-0.39%	0.02%	-0.45%	-0.72%	0.28%	-0.36%
Average	-0.28%	0.14%	-0.40%	-0.53%	0.38%	-0.64%
Minimum	-1.06%	-1.04%	-1.18%	-1.14%	-1.20%	-2.42%
Number of funds	8	7	8	7	7	6

As can be seen in Chart nine below, as expected, respondents generally demonstrated less variability of excess returns for bonds than equities. Large excess negative bond returns were experienced by certain respondents in the lead up and during the global financial crisis. Excess returns rebounded in 2009.

For fixed income the survey results are different from data from other sources. For example data from CEM[3] on value added suggests an average "peer return" of -4.8% for 2008.

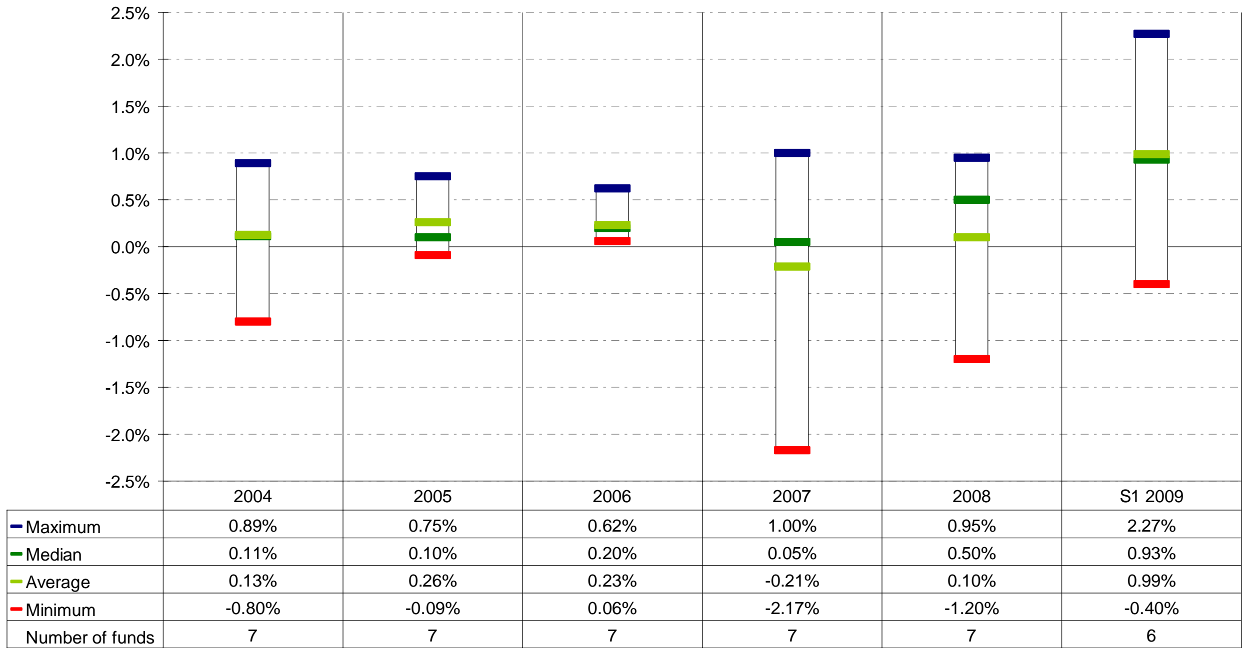
Data from our universe of managers (see Appendix B – Mercer Performance Analytics for more details) shows that the median Mortgage Backed Securities (MBS) manager returned -5.5% in 2008. The US fixed income core universe (where managers are likely to be making active management judgements on spread products) had a median return of -8.0% for 2008 and Global fixed income -6.4%. Fixed income strategies with a structural bias to spread products will have been impacted negatively last year. Analysis of the lower quartile fixed income managers shows that in 2009 the same managers have performed strongly. So for the example in our global fixed income universe we analysed how the 20 managers in the lower quartile during 2008 performed in 2009. The data shows that all of these managers performed in excess of the median return.

[3] Defined Benefit Investment Cost Effectiveness Analysis. Norwegian Government Pension Fund – Global. CEM Benchmarking Inc. 2009

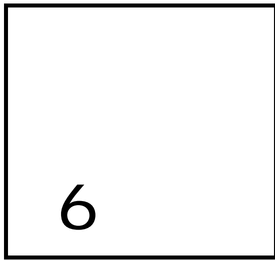
Chart nine

Total Bond return

Excess returns from January 2004 until June 2009



	2004	2005	2006	2007	2008	S1 2009
Maximum	0.89%	0.75%	0.62%	1.00%	0.95%	2.27%
Median	0.11%	0.10%	0.20%	0.05%	0.50%	0.93%
Average	0.13%	0.26%	0.23%	-0.21%	0.10%	0.99%
Minimum	-0.80%	-0.09%	0.06%	-2.17%	-1.20%	-0.40%
Number of funds	7	7	7	7	7	6



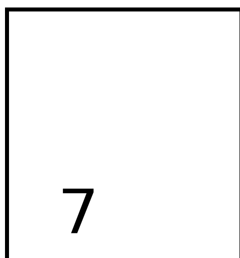
Factor Exposure

6.1 Exposure to investment and financial market risks

One of the challenges for investors is the extent to which they wish to own the beta decisions and the extent to which they wish to leave some or all of the beta decision to the investment manager's discretion.

The normal practice is for the big beta decisions (equity versus bonds say) to be owned by the investor but there is no "best practice" on the allocation of the sub-beta decisions – for example, the allocation to emerging market debt within a fixed income portfolio.

Although allocation practices differ, all the respondents are of the view that exposure to risk factors such as value-growth, momentum, small cap, credit and liquidity should be identified, the impact understood and that the exposures should be monitored and managed. Indeed one of the responses to the financial crisis was to develop the risk management capability to better integrate the effects of these risk factors into their performance evaluation process.



Tactical asset allocation

7.1 Definition of tactical asset allocation

For the purpose of this study we have defined active management as also consisting of tactical asset allocation. In particular, tactical changes to the strategic asset allocation may be made to reflect situations where certain asset classes are expected to deviate markedly from their “equilibrium” values due to structural market anomalies or cyclical economic conditions.

All respondents but one considered that tactical asset allocation provides the opportunity to add value over the medium term. The majority of respondents sought to add value via tactical decisions, but not all had a separate risk budget for this purpose.

Indeed, a number of the respondents treated tactical asset allocation as a means of adjusting the level of risk of the overall portfolio. As such it was seen as directly linked to the long term investment strategy rather than as part of active management.

7.2 Implementation of tactical asset allocation

All respondents (except the one that did not believe in tactical decisions) have set up an in-house process for tactical asset allocation. One respondent employs an external manager to implement the tactical decisions of the fund. In general, the tactical decisions are based on valuations, but four respondents undertake tactical reviews on a monthly basis.

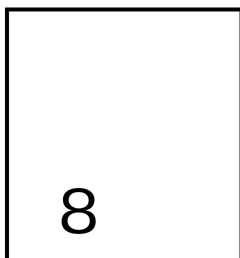
Among the respondents that make tactical decisions, only one fund did not set a tactical risk budget. For other respondents, tracking error is the common metric used to define a risk budget. This indicates the degree to which the portfolio’s returns deviate from the benchmark’s returns over a specific period. The tracking error can be either a backward-looking measure using actual historical data or a forward-looking estimate.

The tracking error is often supplemented by ranges around the strategic asset allocation and/or volatility limits, which measure the risk in absolute terms. Three respondents define a less sophisticated risk budget by only setting ranges around the strategic asset allocation.

Table three

Risk budget	Number of funds
Decisions are made within the agreed ranges around the strategic asset allocation	3
Decisions are made with a certain tracking error limit relative to the strategic asset allocation	3
Decisions are made within the agreed ranges around the strategic asset allocation & with a certain tracking error limit relative to the strategic asset allocation	3
Decisions are made with a certain tracking error limit relative to the strategic asset allocation & within an overall absolute volatility limit	1
Decisions are made within the agreed ranges around the strategic asset allocation, with a certain tracking error limit relative to the strategic asset allocation & within an overall absolute volatility limit	2

Responses relating to the risk-return framework for tactical asset allocation vary widely. However, on average, probably at least as much risk is allocated to tactical decisions as to active management. Only two respondents expected higher risk-adjusted returns from tactical asset allocation than from active management.



Looking forward: active management in the wake of the 2008 financial crisis

8.1 Main challenges faced in 2008

The market turmoil in 2008, particularly when it reached its peak with the bankruptcy of Lehman Brothers in September, weakened the financial system. Subsequent to the drop in value of subprime mortgages, confidence among market participants evaporated. As a consequence of those particular market conditions and of the economic outlook, most securities depreciated and liquidity in some markets (for example, corporate debt) dried up.

The financial crisis triggered a number of operational issues related to activities such as security lending and collateralization of transactions. The operational issues were the most common challenges encountered by the respondents in 2008. In addition, respondents have been disappointed by the performance of their active managers, as was the case for the Government Pension Fund – Global.

8.2 To what extent have the investment policies been revisited?

Following the experience of 2008, five respondents re-evaluated their investment philosophy. One respondent attributed the changes to longer term developments rather than the financial crisis. Among the nine respondents that did not re-evaluate their investment philosophy, four made policy changes without reviewing the fundamentals of their approach.

8.3 Changes in strategic and operational aspects

Respondents indicated that they did not reduce their overall risk allocation to active management.

In general, respondents implemented enhancements to the risk control of their active management in terms of understanding the underlying risk factors and evaluating metrics used to attribute performance. They also sought to better align managers' interests with respondents' interests by setting performance-related fees.

More particularly, four respondents sought to increase their exposures to less liquid strategies and five respondents to decrease exposures to leveraged strategies. Four respondents were also considering increasing exposure to internal management. In the wake of unexpected extreme market conditions in 2008, quantitative investment strategies had suffered, and some delivered very

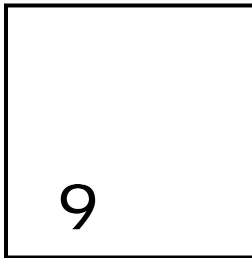
disappointing underperformance. Respondents are re-evaluating the relative merits of active fundamental approaches relative to what are called quantitative approaches.

8.3 Prospective views on strategic asset allocation

There appears to be consensus on listed developed equities which are expected to be less important in the portfolio in three to five years time. The expected decrease in allocation to listed developed equities may impact favourably allocations to emerging market equities, small capitalisation equities and to some extent alternative asset classes. The allocation to government bonds is expected to remain stable in the next three to five years.

8.4 Prospective views on external management

The internalization of a part of active management, previously highlighted, is expected to impact equity, private equity and non-traditional assets (called ‘other assets’ in the questionnaire). However it is not clear if this is related to a change in the actual allocation or solely a change in approach.



Concluding Comments

The events of the later part of 2008 and the early part of 2009 presented a number of challenges to all participants in capital markets. Investors are still in the process of evaluating the lessons and reflecting these in their investment decision-making.

This report provides the results of a survey of the use of active management in funds which are large, long term investors of comparable size and complexity to the Government Pension Fund – Global.

The funds were selected by Mercer and are perceived to be fairly representative of large and long horizon funds across the globe.

As far as active management is concerned, the survey respondents believe that parts of the capital market provide an opportunity for them to generate excess return (net of management costs) over the equivalent passive benchmark and as such active management has some role to play in their investment programs.

The respondents believe that their investment time horizon is a key comparative advantage in active management – this belief manifests primarily in the tolerance of strategies which are less liquid, but to different degrees. Other comparative advantages are the ability to build and retain expertise and minimising costs.

The benefits of active management are deemed to be a) return enhancing and b) internal capacity building. Some respondents believe that active management is a useful risk diversifier but this is not a universal belief. Specifically there was no consensus on whether active management was a benefit (or otherwise) in market distress conditions.

The respondents believe that their time horizon for assessing the degree of success does not reduce in market distress conditions. At the margin, there are some who believe that lengthening the period of evaluation of active managers would result in better outcomes.

The respondents on the whole believe that external providers have a valid role to play in the management of their investment portfolios. The reasons vary but the prime motivation relates to the flexibility (this means different things to different funds) to access deep expertise.

The belief in active management has not been radically altered as a direct consequence of the financial crisis and none of the respondents is planning to make major changes to their active risk budgets. The funds which made fundamental changes did so prior to the financial crisis.

The respondents do however plan to enhance the risk control of their active management in terms of understanding better the underlying risk factors and evaluating metrics used to attribute performance. More particularly, respondents were inclined towards increasing their exposures to less liquid strategies and to decrease exposures to leveraged strategies.

Risk Warnings

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Past Performance cannot be relied upon as a guide to future performance.

The value of stocks and shares, including unit trusts, can go down as well as up and you may not get back the amount you have invested.

Investments denominated in a foreign currency will fluctuate with the value of the currency.

Appendix A

Technical lexicon

Alpha

The incremental return added by an investment manager through active management.

Alternatives investments

Investments that do not fit into the mainstreams areas of equities, bonds and property, and which would normally only form a small proportion of pension plan portfolios. Examples include private equity/venture capital, hedge funds and commodities. They are typically brought into a portfolio to increase diversification.

Benchmark

Measure against which a portfolio's performance, risk and construction are assessed. The benchmark may take the form of a market index for the portfolios focusing on a particular market, such as the MSCI World Equity Index, or may be a peer group average or median.

Beta

Statistical measure of risk or volatility. Indicates the sensitivity of a security or portfolio to movements in the market index. Securities/portfolios with a beta greater than one are expected to be more volatile than the market as a whole, outperforming in rising markets and underperforming in falling ones.

Efficient market

An investment market where new information is quickly reflected in the price of securities in the market. It is generally more difficult for an investor to outperform in such a market.

Excess return

Return of a security or portfolio in excess of its benchmark.

Funding level

For a pension fund, the ratio of the fund's assets to its liabilities. Normally relates to defined-benefit pension funds and is used as a measure of the fund's ability to meet its future liabilities.

Liabilities

Financial obligations – for example, future pension payments or money owed to banks – that must be met to satisfy the contractual terms of the obligation. Liabilities may be time-based (that is, payable at a specific time) or contingent upon the occurrence of a future event (such as retirement or death).

Liquidity

Degree to which an asset or portfolio is easily marketable or turned into cash. The most liquid equity stocks are those of the large blue chip companies quoted on the large international markets. Liquidity can be measured by considering trading volume relative to a company's issued share capital.

Strategic asset allocation

Benchmark allocation between the main asset classes with the aim of meeting the investor's risk and return objectives. Also known as "investment strategy" or "strategic allocation" and sometimes prefaced with "long-term".

Tactical asset allocation

Short-term deviation from a strategic asset allocation to exploit predicted short-term relative movements in markets, with the aim of generating excess return relative to a benchmark (typically the strategic asset allocation).

Tracking error

Measure of the variability of investment returns relative to a benchmark or index. It is usually expressed as the annualised standard deviation of relative returns. Can be expressed as either ex-post, which is simply the historical tracking error, or ex-ante, which is a forward-looking estimate of the future tracking error.

Volatility

The variability of the price of a security. Typically quantified as standard deviation, which is a statistical measure of the historical variability of returns relative to their mean (or expected return). It is an indicator of the degree to which an asset's or portfolio's returns deviate over a specific period in absolute terms.

Appendix B

Performance Analysis based on Mercer Performance Analytics

Mercer performed an analysis of a selection of investment universes within its performance database of world-wide investment managers.

The database includes performance of investment strategies. Returns are gross of fees in order to be comparable from an investment strategy to another. The performance data presented in the following analysis are in US dollars (unhedged), and they are updated as at end of June 2009.

The universes were selected in the view of being representative of the investment policy framework of the Government Pension Fund – Global. See the list below in table one:

Table four

Universe	Index
Distressed Debt	Merrill Lynch High Yield Master
Europe inc. UK Equity Small Cap	S&P Europe Small Cap
Global Credit	Barclays Capital Global Aggregate Credit
Global Emerging Market Equity	MSCI Emerging Markets
Global Equity	MSCI World Free
Global Fixed Income	Citigroup World Government Bond Index
Global Inflation-Linked Bonds	Merrill Lynch Global Inflation-Linked
Global Small Cap Equity	MSCI World Small Caps
US Equity Small+Mid Core	Russell 2000
US Fixed Income Core Investment Grade	Barclays Capital US Aggregate
US Fixed Income Core Opportunistic	Barclays Capital US Aggregate
US Inflation-Linked Bonds	Barclays Capital US TIPS
US Mortgage Backed Securities	Barclays Capital US Mortgage Backed Securities

The number of strategies within each universe varies from a year to another. This number is indicated in the following charts one.

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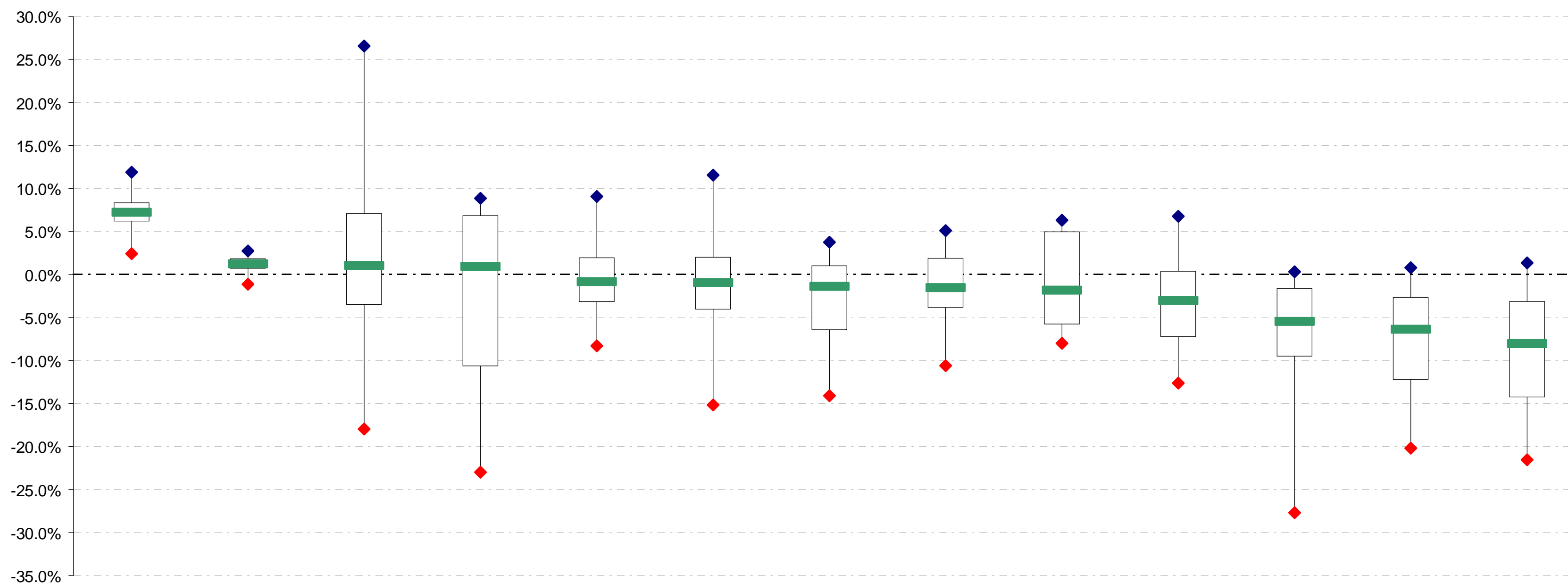
Chart ten



	Global Inflation-Linked Bonds	US Inflation-Linked Bonds	Distressed Debt	Global Credit	Emerging Markets Equity	Global Equity	US Fixed Income Core Investment Grade	Europe inc. UK Equity Small Cap	Global Small Cap Equity	US Equity Small+Mid Core	US Mortgage Backed Securities	Global Fixed Income	US Fixed Income Core Opportunistic
95th percentile	11.9%	2.7%	26.6%	8.9%	9.1%	11.6%	3.8%	5.1%	6.3%	6.8%	0.3%	0.8%	1.4%
Upper Quartile	8.3%	1.8%	7.1%	6.9%	2.0%	2.0%	1.0%	1.9%	5.0%	0.4%	-1.6%	-2.6%	-3.1%
Median	7.2%	1.2%	1.1%	0.9%	-0.8%	-1.0%	-1.4%	-1.5%	-1.8%	-3.0%	-5.5%	-6.4%	-8.0%
Lower Quartile	6.2%	0.7%	-3.5%	-10.6%	-3.2%	-4.1%	-6.4%	-3.8%	-5.8%	-7.2%	-9.5%	-12.2%	-14.3%
5th percentile	2.4%	-1.1%	-18.0%	-23.0%	-8.3%	-15.2%	-14.1%	-10.6%	-8.0%	-12.6%	-27.7%	-20.2%	-21.5%
Number of Funds	14	33	34	10	148	425	204	41	20	213	36	89	95
Index return	-7.5%	-2.4%	-26.4%	-7.0%	-53.2%	-40.3%	5.2%	-50.8%	-42.9%	-33.8%	8.3%	10.9%	5.2%

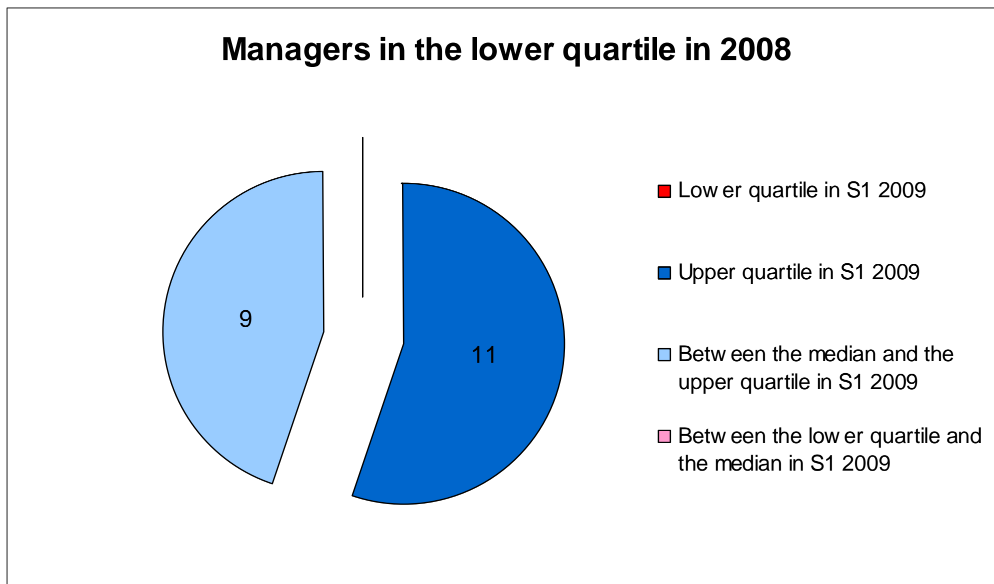
Global Fixed Income

The Global Fixed Income universe contains the performance of 80 investment strategies from January 2008 until June 2009. The 20 managers that formed the lower quartile in 2008 significantly outperformed over the first half of 2009, so that they all delivered a higher excess return than half of the universe constituents.

Table five

	Excess return of the lower quartile of 2008	
	2008	H1 2009
Maximum	-9.1	19.2
Median	-16.7	6.3
Average	-17.4	7.6
Minimum	-48.2	2.7

Chart eleven



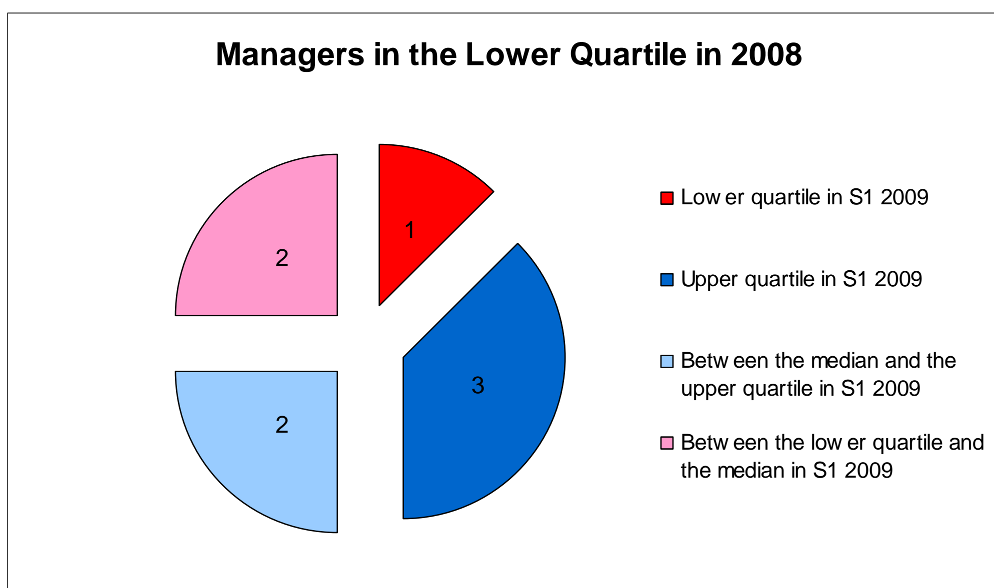
US Mortgage Backed Securities

The US Mortgage Backed Securities universe comprises 34 investment strategies in 2008 and S1 2009. All the strategies that were part of the lower quartile in 2008 strongly outperformed in 2009, and most of them delivered more than half of the universe constituents.

Table six

	Excess return of the lower quartile of 2008	
	2008	H1 2009
Maximum	-1.8	9.1
Median	-5.1	5.0
Average	-14.7	5.7
Minimum	-52.4	2.5

Chart twelve



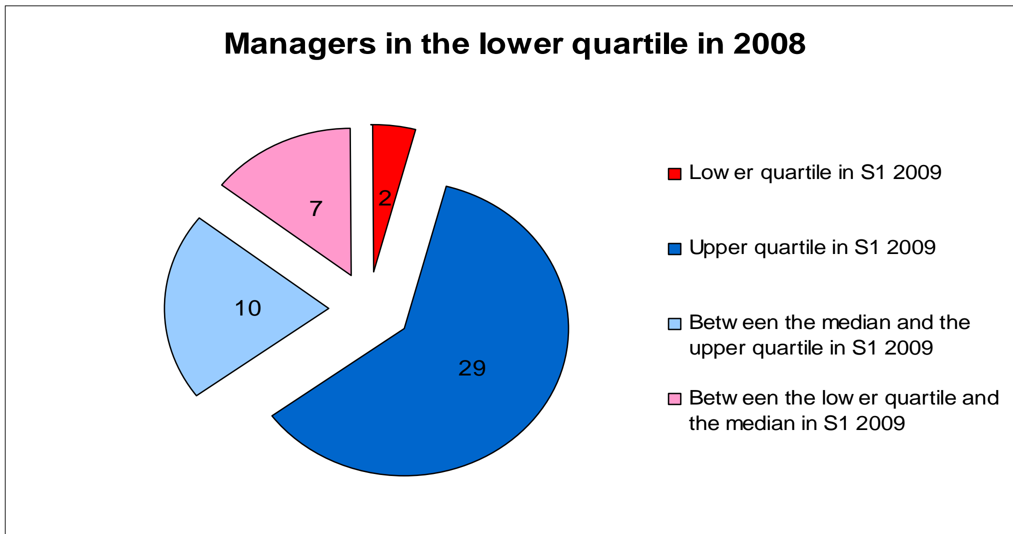
US Fixed Income Core Investment Grade

The US Fixed Income Core Investment Grade universe comprised 190 strategies in 2008 and 2009. Almost every manager of the 48 which made up the lower quartile in 2008 outperformed in the first semester of 2009; and more than 60% of those investment strategies were in the upper quartile in S1 2009.

Table seven

	Excess return of the lower quartile of 2008	
	2008	H1 2009
Maximum	-6.6	14.5
Median	-10.4	4.6
Average	-11.1	4.7
Minimum	-23.0	-0.4

Chart thirteen



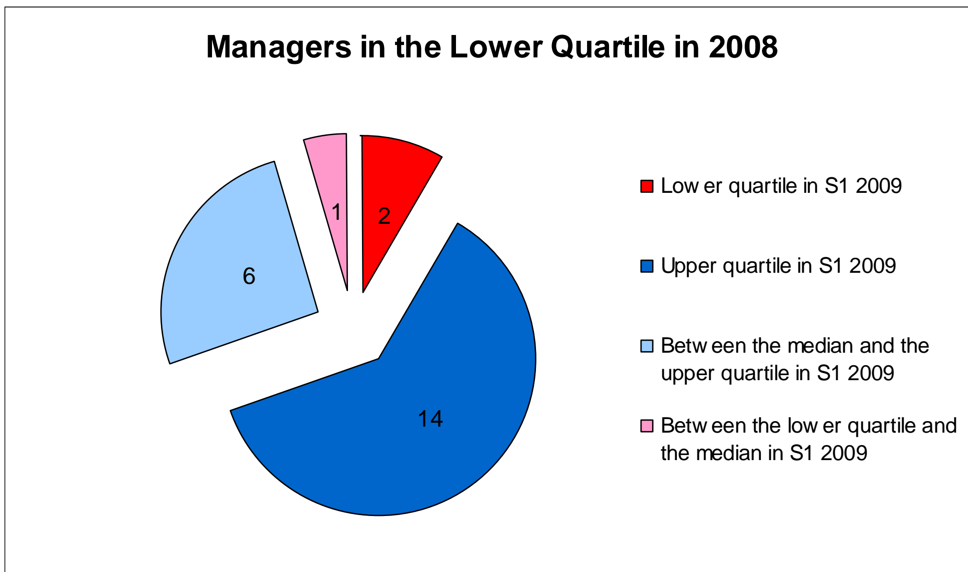
US Fixed Income Core Opportunistic

The database includes the performance data of 93 US Fixed Income Core Opportunistic strategies for 2008 and 2009. In general, the 25% worst performers of 2008 strongly outperformed in 2009; and, as it was the case for the US Fixed Income Core universe, more than 60% of the 2008 lower-quartile investment strategies were in the upper quartile in S1 2009.

Table eight

	Excess return of the lower quartile of 2008	
	2008	H1 2009
Maximum	-14.4	17.3
Median	-18.5	8.1
Average	-18.6	9.1
Minimum	-28.6	-1.3

Chart fourteen



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