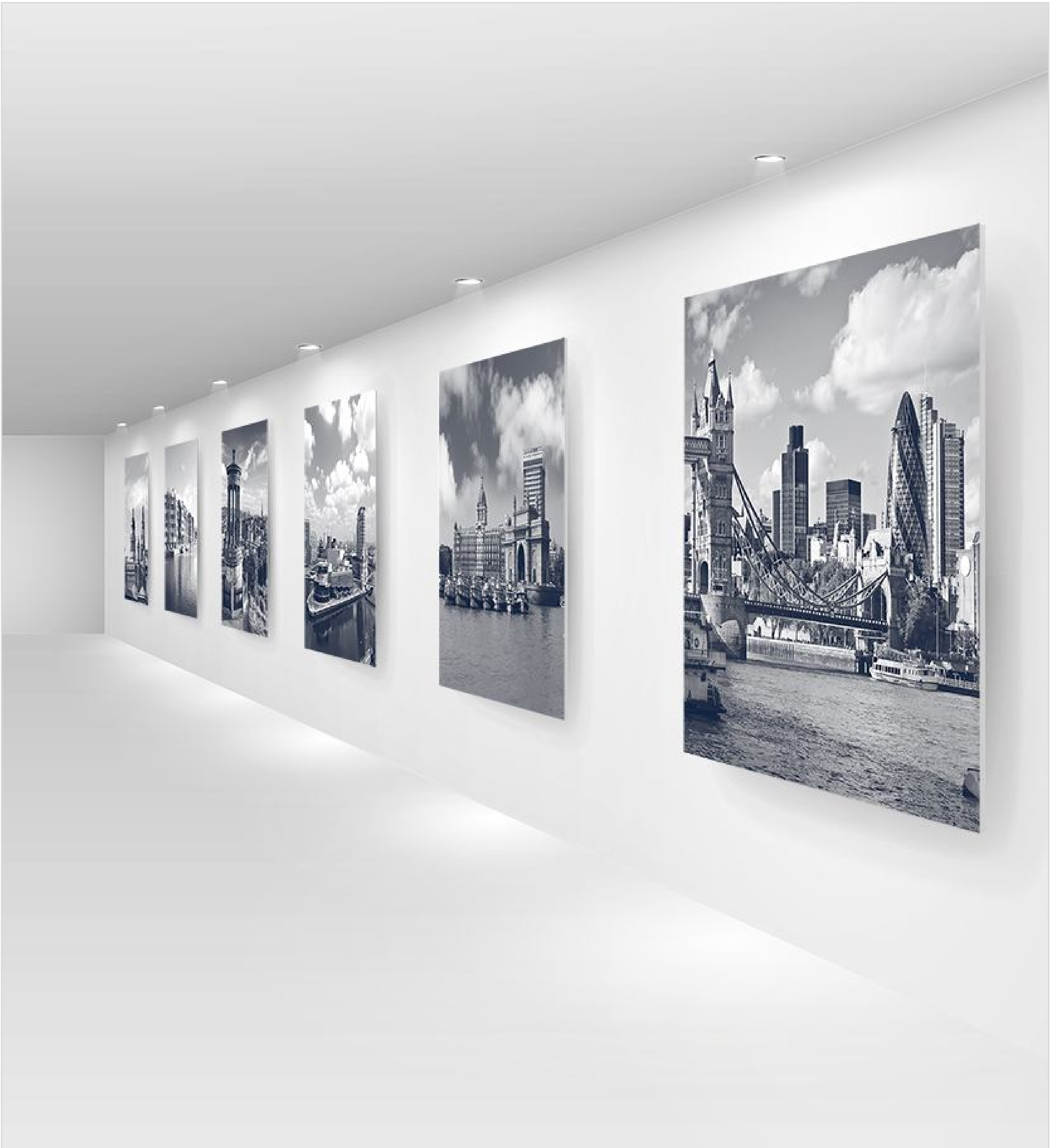
Avon Pension Fund

Global Equity Portfolio



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1 Introduction

This report is written for the Investment Panel and Officers of the Avon Pension Fund. It provides advice as to the allocation within the BlackRock global equity portfolio in anticipation of the changes to the Fund's asset allocation following the conclusions of the recent investment strategy review. Throughout this report, the equities held within the BlackRock No 2 (property) portfolio are ignored.

1.1 The current portfolio

Prior to the investment strategy review, the benchmark position for the Fund's equities was as follows:

Table 1.1 – Strategic Benchmark prior to Review

Region	Target allocation %	Of equity portfolio %
UK	18%	30%
Overseas / Global	42%	70%
Of which explicitly Emerging	*5%*	*8.3%*

Source: Avon Pension Fund Statement of Investment Principles

The following table shows how the equity portfolio was allocated based on values as at 31 March 2013 and the benchmark of the individual funds. The table splits the global portfolios (Invesco and Schroder) out into their constituent weights based on the benchmark. It should be noted that, for Schroder in particular, the actual weights could deviate materially from the benchmark weights to each region.

Table 1.2 – Actual Allocations

Region	% of Fund at 31 March 2013 with global funds split out by benchmark weights	% of equity portfolio at 31 March 2013 with global funds split out by benchmark weights
UK	21.20%	33%
Europe ex UK	9.77%	15%
North America	18.49%	29%
Asia Pacific ex Japan	4.20%	7%
Japan	4.56%	7%
Emerging markets	5.80%	9%
TOTAL	**64.02%**	**100%**

Source: Avon Pension Fund, JLT

1.2 The revised portfolio

Following the investment strategy review, it was agreed that the allocation to emerging markets would be increased. Using the existing target split between UK and non UK, of 30% / 70%, the target allocations are as follows.

Table 1.3

Region	Target allocation % of Fund assets	Target allocation % equity portfolio
Equities	50%	100%
UK	*15%*	*30%*
Overseas	*35%*	*70%*
of which DM	*25%*	*50%*
of which EM	*10%*	20%
Total UK	**15%**	**30%**
Total Overseas	**35%**	**70%**

Source: Avon Pension Fund

The remainder of this report provides a recommendation as to how the allocation to equities within the BlackRock portfolio should be split by region.

2 Equity allocation by region

2.1 Setting a Regional Equity Benchmark

There are a number of ways to set a regional equity benchmark. They can broadly be categorised as follows:

- Fixed weight
  - There is a fixed percentage weight for each region
- Market weight
  - Based on the relative allocations within the overall market
- Economic weight
  - By some other measure, eg. GDP weighting or some measure of wealth
- Quant
  - Eg. Minimum variance weighting

The Fund has already taken a partial approach to a fixed weight approach, by setting fixed allocations to developed overall relative to emerging markets, and also between the UK and overseas / global.

There is some merit in exploring alternative weighted indices but the evidence as to whether such an approach will outperform the market is not conclusive.

Financial theory would suggest the market weighted approach is most efficient. In particular, the efficient market hypothesis ("EMH"), developed by Professor Eugene Fama in the 1960s, states that markets are "informationally efficient" and therefore one cannot consistently outperform the market. Informationally efficient means that all information: historical price information, public information and private information, is fully reflected in an asset's price. The logic would follow that the most efficient portfolio is therefore one that is weighted by stock (and therefore region) in the same proportion as the market. So for example, there would be no point in an active investment manager undertaking more research to pick better stocks, because that information is already contained within the price. This conclusion relies on a number of assumptions that are not reflected in reality and many empirical studies have contradicted the EMH's assertion. Furthermore, we are only considering equities whereas the overall market contains many asset classes.

The biggest concern with the market approach is its concentration in some regions (i.e. North America) and its low exposure to other regions (UK and emerging in particular). This is to some extent mitigated by the fact that the Fund has a fixed exposure to UK and emerging market equities. It must also be remembered that, if considering the source of company earnings rather than the domicile of the listing of that company, then the exposure is less concentrated.

Historic returns show that there can be significant deviations between returns from different regions. Over the 10 years to 30 April 2013, the lowest return in sterling terms was Japan (8.2% p.a.) whilst the highest was Emerging markets (17.3% p.a.). This is the same ranking in local currency terms also. However, whilst it may be sensible to strategically position a global equity portfolio to areas of expected higher growth (eg. emerging markets), there is little evidence that tactical asset allocation between regions can provide consistent outperformance. This suggests a market weighted allocation is a sensible starting point. Utilising fixed weights that broadly reflect this approach is also a sensible means of rebalancing and addressing any concentrations that may be evident in a pure market weighted approach.

2.2 Current Regional Allocation Versus a Global Equity Index

The following table repeats table 1.2 from the previous section, but this time ignoring the specific Emerging markets (Genesis) and UK mandates (BlackRock, TT and Jupiter). The second column "looks through" the global portfolios (Schroder and Invesco) to the underlying allocations within their respective benchmark. A third column is included, showing the allocation to the FTSE World ex UK Index. This is a global index that excludes the UK and emerging markets. An alternative index would have been the MSCI World ex UK Index but the allocations are very similar.

Table 2.1

Region	% of overseas equity portfolio at 31 March 2013 with global funds split out by benchmark weights	% of FTSE World ex UK Index
UK	3%	-
Europe ex UK	21%	19%
North America	44%	61%
Asia Pacific ex Japan	15%	9%
Japan	13%	11%
Emerging markets	4%	-
TOTAL	**100%**	**100%**

Source: Avon Pension Fund, JLT, MSCI, FTSE

The table shows that the allocations to the overseas developed equity regions is fairly close to the market weights. The biggest differences are a higher weighting to Asia ex Japan equities within the Fund portfolio compared to the market, and a lower weighting to North American equities (which is predominantly US equities).

3 Recommendation

3.1 Developed overseas equity recommendation

Given that the current exposure to developed overseas equity markets is within a reasonable margin of the market weighted allocation, and that certain biases have been addressed through the fixed weights to the UK and emerging markets and an underweight position to North America in the rest of the portfolio (as well as currency hedging, which aims to dampen volatility due to currency movements), we recommend that a fixed weight portfolio is targeted based on the current exposures for developed overseas equity. That is:

- Europe ex UK: 25% (6.25% of total Fund)
- North America: 50% (12.5% of total Fund)
- Asia Pacific ex Japan: 12.5% (3.13% of total Fund)
- Japan: 12.5% (3.12% of total Fund)

This also reduces another risk within the Fund, associated with the timing of changing asset allocation. Whilst there are parts of the total portfolio that are being changed, this is for strategic reasons where there is a strong conviction for those reasons.

3.2 Implementation within the Portfolio

The allocation to developed market equities will be adjusted from 55% of the total Fund to 40% (made up of 15% UK equities and 25% Overseas equities). It may be most efficient to enact the change through the passive portfolio given that there are expected to be lower transaction costs. Table 3.1 looks at the allocation within the global equity portfolio if the active managers (Invesco overseas equity, Schroder global equity and the State Street Europe and Asia Pacific enhanced funds) retain their current allocations. Once again, the allocations to regions in these funds is based on the benchmarks rather than the actual portfolio. [1] (see the note at the end of this Section.)

The table shows that the current exposure to overseas developed market equity when ignoring the equities currently managed by BlackRock on a passive basis, comprises 15.3% of the Fund. That leaves c.9.7% of the Fund to allocate between the BlackRock regional overseas funds in order to achieve the 25% overall allocation to Developed markets overseas equities.

The recommendation above in 3.1 implies that the BlackRock portfolio should be providing the following exposures for the developed market overseas portfolio (adjusted to take account of the small existing allocations to UK and emerging markets).

Table 3.1

Region	Target (adjusted for EM and UK)	Schroder Index	Invesco Index	SSgA Index	Implied BlackRock % of Fund	Current BlackRock Holding on lookthrough basis
N. America	**12.50%**	3.26%	4.41%	0.00%	**4.83%**	10.82%
Europe ex UK	**6.25%**	0.97%	1.37%	1.09%	**2.81%**	6.33%
Asia ex Japan	**3.13%**	0.37%	0.46%	1.03%	**1.27%**	2.34%
Japan	**3.12%**	0.50%	0.72%	1.15%	**0.76%**	2.20%
Total	**25.00%**	5.10%	6.96%	3.27%	**9.67%**	21.69%

Source: Avon Pension Fund, JLT, MSCI, FTSE

3.3 Reviewing the allocations

On a strategic basis, it would be appropriate to review whether an alternative approach (relative to market weights) may be sensible but this should be given due consideration and due diligence. This could include making a longer term assessment of each equity region, although given the global nature of equity markets this is less relevant than perhaps it was in the past. It may also include looking at approaches that weight allocations based on criteria such as wealth creation or GDP.

On a tactical basis, it should be noted that Schroder in particular has an unconstrained approach so there will be some element of tactical allocation within their portfolio, although their philosophy is based on the long term fundamentals of stocks rather than considering tactical allocations to regions.

The allocation to diversified growth funds will provide exposure to tactical asset allocation that is expected to include allocating between equity regions.

Nonetheless, it may be appropriate to review, on a tactical basis, whether any over or underweighting is appropriate. JLT will bring forward any strong views from our Tactical Allocation Group but the allocations should also be reviewed on not less than an annual basis.

Rebalancing of the portfolio can be beneficial in that it should sell regions that have performed relatively well and purchase those that have underperformed. However, rebalancing on too regular a basis can incur transaction charges that offset any gains, as well as risk buying into a falling market or selling a rising market. As such, it would be appropriate to rebalance the portfolio on an annual basis. Any interim rebalancing activity within the investment portfolio driven by cash flows should take into account these fixed regional allocations.

[1] **Why consider the benchmark instead of the actual allocation for the overseas / global portfolios?**
The recommendation has been based on the benchmark position for the Schroder Global Equity and Invesco overseas equity portfolios rather than the actual positioning. Whilst the Invesco portfolio is unlikely to differ significantly from the benchmark, the unconstrained nature of the Schroder portfolio means that significant deviations can occur. If the balancing BlackRock portfolio took into account these deviations, then it would firstly imply that that it should be rebalanced based on changes made to the Schroder portfolio, which increases transaction costs and can lead to excessive trading.

More importantly however, deviations from the benchmark from Schroder should generally lead to over or underperformance, even if those deviations are a function of stock selection rather than intended tactical positions on different regions. As such, it would be counter-intuitive to then offset those positions with a passive portfolio.

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