Assessment of Fund’s rebalancing needs

Addressee

This note is addressed to the Officers and Pension Committee (“Committee”) of the East Sussex Pension Fund (“the Fund”) and provides our recommendations on how the Fund’s asset allocation should be rebalanced towards the strategic benchmark.

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Background

The long term investment strategy for the Fund is set by the Committee and is defined in terms of target allocations to a series of specific asset classes and manager mandates. It is the key decision in terms of the level of investment risk being taken and the returns which will be earned by the Fund.

Why rebalance?

The Fund’s actual asset allocation can deviate from the strategic benchmark for a number of reasons including:

- Market movements
- Fund manager under/outperformance relative to benchmark
- Income distribution

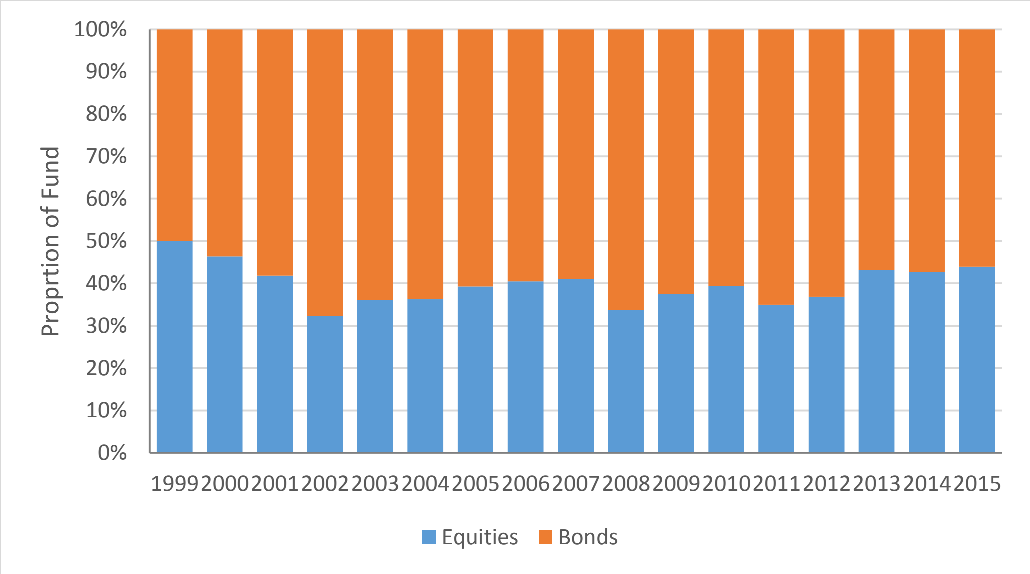
Systematic rebalancing has proved over time to be a successful investment discipline. It encourages investors to sell assets which have performed well (thus crystallising profits and selling expensive assets) and to buy assets that have performed less well (thus purchasing favoured asset classes at attractive valuations). This generally improves performance because of the inherent volatility of growth assets. Rebalancing also helps retain the agreed risk profile of the investment portfolio.

Introducing a tolerance range around each component within the strategic asset allocation allows for a degree of flexibility in managing the investment strategy. For example, subject to ranges not being breached, a decision may be taken to rebalance to an asset class other than the most underweight if, say, the cost of investing in that asset class is considered to be particularly high or an appealing investment opportunity presents itself elsewhere.

Asset Allocation Drift

To illustrate the effects of rebalancing, we have analysed a generic portfolio initially split 50% / 50% between equities and bonds over the period from 1999 to 2015. The chart below shows how the asset allocation of this portfolio would have evolved over the period without any rebalancing being implemented.

Effect of market returns on asset allocation



Note: Allocations are shown as at the end of each year.

Note that, by the end of 2002, our hypothetical portfolio would have become too conservative, with only 34% in equities and 66% in bonds ahead of the strong equity market rally starting in 2003, thereby not reaping the proper benefit. For similar reasons, many portfolios drifted overweight to equities over the period 2003-7, leaving investors over-exposed to the sharp equity market falls that were witnessed in 2008.

Over long periods of time, a portfolio will experience rising as well as falling markets, so the divergence from asset allocation will be mitigated over time. However, what is important is the effect these deviations will have on the return achieved by the portfolio over time. The table shows the effect of rebalancing on the returns from our hypothetical portfolio assuming it was invested over the period from 1 January 1999 to 31 March 2016.

Portfolio	Cumulative return (%)	Average return (% p.a.)
Not rebalanced	220.2	5.0
Rebalanced	232.4	5.3

Note: Annual rebalancing to the 50% / 50% target is assumed. Transaction costs are ignored.

Rebalancing Approach

So far in this paper we have applied financial theory and some historical analysis to illustrate the potential benefits of rebalancing. In broad terms, these can be summarised as locking in gains from outperforming asset classes and, in the process, ensuring that the returns achieved remain close to those of the strategic asset allocation benchmark itself.

In practice, of course, there are a number of factors which need to be considered and which may influence the particular approach taken to establishing a rebalancing process. These include:

- **Liquidity** - while some asset classes are highly liquid and easily tradable (for example, quoted equities and bonds), many others are less easily traded and are more difficult and expensive to transact (for example, property and alternative assets). In addition, dealing opportunities may be limited by the available dealing dates for particular pooled funds.

- **Dealing Costs** - as explained earlier, frequent rebalancing may simply incur additional costs. It is important to note that such costs vary between markets and over time so any process needs to be reviewed from time to time.
- **Administration** - irrespective of the approach taken, a simple set of rules needs to be implemented by one or more parties; this argues in favour of avoiding unnecessarily complex solutions.
- **Flexibility** – it is important to retain the option of amending the rebalancing process or indeed suspending it altogether, depending on changes in market conditions or practice. Many rebalancing programmes were suspended in 2008 in the light of the extreme market volatility and a sharply downward movement in equity prices seen at that time.

In general, the more complex the investment manager arrangements, the more difficult it becomes to implement rebalancing.

It may help to illustrate some of these concepts in a simple example, using a single scheme with one balanced mandate operated by a single investment manager. The table below summarises a possible rebalancing programme.

Asset Class	Target Asset allocation benchmark %	Rebalancing Ranges % (Simple)	Rebalancing Ranges % (Weighted)
UK Equity	30	25 – 35	25 - 35
Overseas Equity	30	25 – 35	25 - 35
Gilts	10	5 – 15	8.5 – 11.5
Corporate Bonds	20	15 – 25	17 – 23
Index Linked Gilts	10	5 – 15	8.5 – 11.5

In this case, the simple approach is to implement ranges of "+ or - 5%" around the central benchmark. Clearly, the sub-division of asset classes could be extended further to include regional equity markets and other assets. It would be possible to add a further limit on the total equity exposure, taking UK and Overseas together.

In the more complex approach on the right of the table, the ranges themselves vary according to the central benchmark allocation. If one of the principal benefits of a rebalancing programme is to capture the relative outperformance of one asset class versus another, then it makes sense for the permitted ranges to reflect the relative significance of each asset class within the strategic benchmark. In our example, starting from the central position, an outperformance of 20% from gilts relative to other assets would take the gilt weight to around 12% and would fail to trigger a rebalance under the simple ranges - but it would trigger a rebalance under the weighted approach. We are naturally attracted to the latter for this reason, but, in practice, we recognise the merits of the simpler approach.

Rebalancing for the Fund – General Rules

The following general rules would determine how a rebalancing process for the Fund would operate.

- **Rebalancing would apply only to equities, absolute return funds and bonds** - Due to the transaction costs and illiquidity associated with the other investments such as property, we propose that rebalancing for those asset classes be considered on an annual/ad hoc basis; for the purposes of this document we consider rebalancing between equities, absolute return funds and bonds, rebalancing within bond allocations across bond categories and rebalancing within the equity allocation across different managers.

- **Rebalancing would be monitored on a quarterly basis**
- **Each benchmark allocation would have a weighted tolerance range –** A tolerance range will be defined for growth and matching assets and each underlying mandate; these tolerance ranges will be used in determining when rebalancing will occur; the tolerance ranges could be weighted relative to the absolute amount of the benchmark allocation or the simple approach set out above.
- **Cash holdings to be used for rebalancing**. Where possible any net investments or disinvestments should be used to manage allocations, for example, by investing any surplus cash into the most underweight asset class.
- **Rebalancing will occur at two levels; at the growth vs matching level, and at the mandate level –** The rebalancing process will determine if rebalancing is required between growth and matching assets, and separately if rebalancing is required between underlying mandates. However, it is more important to be willing to incur transaction costs if necessary to rebalance between bonds and equities, for example, than switching between managers with similar mandates (eg. Longview and L&G global equities).
- **Rebalancing transactions will aim to rebalance allocations outwith their tolerance ranges to the midpoint (at least) of the tolerance range –** The mid-point of the tolerance range is the mid-point between a benchmark allocation and its upper or lower tolerance limit. Assuming an asset class with a 60% allocation and a 54%-66% tolerance range, the upper mid-point would be the halfway point between 60-66% (i.e. 63%). The lower mid-point would be the halfway point between 54% and 60% (i.e. 57%). Analysis suggests that this is the best way of balancing the impact of transaction costs against returns.

The allocations to private equity and infrastructure (and to a lesser extent property) will vary with general market movements and are not easily altered, due to the illiquid nature of the asset classes. Therefore we would not recommend any rebalancing to be carried out in relation to the Fund's private equity or infrastructure investments. We also note that Schroders have been instructed to distribute income from the underlying property funds from Q2 2016 onwards and this should help towards reducing the current overweight to property over time. Taking into consideration the time it takes to undertake property transactions and the associated transaction costs, we suggest that any further rebalancing is carried out on an ad-hoc basis taking into account market conditions at the time.

Conclusions

The purpose of this paper is to raise the subject of rebalancing as a first step in recommending a practical solution for the consideration of the Committee. We have touched on both the theory and the practice of rebalancing.

We believe strongly that there should be a formal policy on rebalancing and have shown below a pragmatic approach for initial consideration.

Should a more sophisticated approach be required, we suggest picking this up in more detail at the forthcoming Strategy Day.

Asset class	Strategic target (%)	Actual allocation (%) (31 March 2016)	Difference (%)	Potential range
Listed Equities	50.0	48.3	-1.7	+/-5
Private Equity	5.5	6.1	0.5	+/-2
Absolute Return	20.0	17.8	-2.2	+/-3
Property	10.0	12.0	+2.0	+/-3
Infrastructure	2.0	1.8	-0.2	+/-2
Growth Assets	**87.5**	**86.0**	**-1.6**	**+/- 5**
Absolute Return Bonds	3.0	2.4	-0.6	+/-1
Fixed Interest Bonds	3.5	4.1	+0.6	+/-1
Index-Linked Gilts	5.0	5.3	+0.3	+/-1
UK Financing Fund	1.0	0.3	-0.7	+/-1
Cash	0.0	2.0	+2.0	+/-2
Matching Assets	**12.5**	**14.1**	**+1.6**	**+/-5**
Total	**100.0**	**100.0**		

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General Risk Warning

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets.
Exchange rates may also affect the value of an overseas investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.