

INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

5 October 2011 (pm)

Subject SA6 — Investment Specialist Applications

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You have 15 minutes before the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt all three questions, beginning your answer to each question on a separate sheet.*
6. *Candidates should show calculations where this is appropriate.*

AT THE END OF THE EXAMINATION

Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.

<p><i>In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.</i></p>
--

- 1** You are the Head of Institutional Pensions at a large asset manager with a strong capability in passive equities, passive bonds and liability driven investment (“LDI”). Whilst you have significant active equities and active bonds businesses, only some of your products are highly rated by external manager researchers. You have no meaningful capability in the alternative assets space.

You plan to launch a range of “target retirement date” strategies for defined contribution (DC) investors as follows:

Active – phasing from 75% active equities and 25% active corporate bonds to LDI funds (inflation linked) or LDI funds (fixed) or cash

Passive – phasing from 75% passive equities and 25% passive corporate bonds to LDI funds (inflation linked) or LDI funds (fixed) or cash

Diversified – phasing from a diversified range of actively managed assets to LDI funds (inflation linked) or LDI funds (fixed) or cash

The phasing period is selected by the investor and is implemented by means of unit switches.

You have been given discretion to invest the active and diversified funds with external asset managers where your firm does not have a highly rated active fund in a given asset class. You will therefore need to set up a manager selection team in-house.

- (i) Explain the factors that the manager selection team should consider in determining whether to select a manager. [12]
- (ii) Comment on any non-investment factors that might determine the choice of external managers to invest with. [4]
- (iii) Describe the analysis you would undertake to ensure that the diversified fund lives up to its name in terms of accessing and managing the underlying risk exposures through portfolio selection and construction. [13]
- (iv) (a) Discuss the difficulties in offering a diversified fund to DC investors.
(b) Suggest how these can be mitigated. [6]

[Total 35]

- 2 You are the newly appointed investment consultant to a large private trust that provides funding for the education of college students whose families otherwise lack the necessary financial means. The trust currently funds the fees of around 1000 students and aims to maintain financial support for this number of students in perpetuity.

25% of the trust's assets are invested in the unlisted shares of Old Industry Textiles Ltd (OIT), a clothing manufacturer established and once owned by the now deceased founder of the trust.

You have been asked by the trustees to review the current investment strategy of the trust and suggest possible improvements.

- (i) (a) State the information you would need for your analysis.
 - (b) Discuss the considerations that will influence your choice of strategic asset allocation benchmark.
 - (c) Propose an appropriate benchmark stating any assumptions you make.
- [12]

You have been given the following financial data relating to OIT.

	2007	2008	2009	2010
Sales (£m)	504	510	516	521
Net profit margin	2.5%	2.2%	2.0%	1.8%
Dividend payout ratio	80%	100%	120%	125%
Debt/equity ratio	40%	45%	50%	55%

- (ii) (a) Describe the financial condition of OIT.
 - (b) State what further information you would require to make a more complete analysis of OIT.
- [7]
- (iii) Describe the potential risks to the trust posed by the shareholding in OIT and how these might be managed.
- [6]

The managers of a large private equity fund, structured as a limited partnership, have approached the trustees as well as the other shareholders with a view to purchasing OIT outright. They are proposing a swap of shares for a limited partner interest in their private equity fund.

- (iv) Explain what information you would require in order to assess the merits of the proposal from the perspective of the trustees.
- [10]
[Total 35]

- 3** A very large defined benefit pension fund has its domestic equity assets managed by six large asset managers with identical mandates. The mandates specify the local market All Share Index as a benchmark and allow for performance related fees if a manager produces returns in excess of the benchmark. The benchmark index has its constituents weighted by their respective individual market capitalisations.

A consultant advising the fund has recommended changing to a core/satellite methodology whereby the majority of assets will be invested in a passively managed index-tracking fund alongside specialist active management mandates for a small number of satellite portfolios.

- (i) (a) Discuss the considerations that might have motivated the proposed change. [8]
- (b) Comment on any drawbacks that might result from the new arrangement. [5]
- (ii) Discuss the merits of, and any problems related to, the inclusion of the following as satellite portfolios:
 - (a) a small cap equity portfolio
 - (b) a deep value style equity portfolio
 - (c) a high dividend yielding equity portfolio[9]

One of the funds under consideration is a quantitative fund which has as a benchmark an index that is equally weighted to the constituent shares of the All Share Index. Consideration is also being given to using a fundamental index as a benchmark where the weights given to individual shares are based on certain company fundamentals (e.g. sales, cash flow, dividends, etc.).

- (iii) Discuss how the considerations that should affect the choice of benchmark would apply to using each of these. [8]
- [Total 30]

END OF PAPER