

EXAMINATION

September 2006

Subject SA6 — Investment Specialist Applications

EXAMINERS' REPORT

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

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Chairman of the Board of Examiners

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General comments

This diet saw a continuation of an unfortunate trend for candidates to reproduce large tracts of irrelevant bookwork with little demonstration of the ability to apply this information or develop practical conclusions that would underpin an implementable solution in a real world client situation. The investment syllabus lends itself to innovative applications of basic concepts, more so than the pensions and insurance subjects and the examiners would expect candidates looking to specialise in this area to demonstrate better understanding and application skills.

Comments on individual questions

- Q1**
- (i) *Straightforward and most candidates picked up some marks on this although many seemed unable to answer the specified question and cover topics that were relevant to (ii).*
 - (ii) *Candidates tended not to answer in the context of the question, supplying general answers rather than focused ones. As a consequence they scored only around half the available marks.*
 - (iii) *This was generally done well with many candidates able to outline the behavioural issues. However many failed to give appropriate examples.*
 - (iv) *Responses to this part were mixed with poorer candidates being caught out by lack of understanding.*
 - (v) *Many candidates had no idea of the concept of a utility function. Poorer candidates were unable to explain the “human nature” aspects that caused the sub-optimal manager selection.*
- Q2**
- (i) *This part tended to result in more brain dumps and many answers covered aspects that were not required (although as always candidates were not explicitly penalised for this).*
 - (ii) *This was effectively bookwork and so scoring was generally reasonable.*
 - (iii) *Candidates tended to answer in the general rather than the specific context. They therefore covered the indices mentioned in detail rather than putting it in the context of the global equity portfolio that was to be monitored. Consequently answers contained lots about the structures of the indices themselves but little about the issues of the different structure that the portfolio might have and how this could be addressed. On average candidates scored around 20–22 out of 36.*
 - (iv) *Candidates were poor at answering this part. We tended to get answers about why smaller companies and emerging markets were a good idea rather than what was asked. Where answers did try to do what was asked, they missed many of the specific points.*
 - (v) *This was probably the poorest part for answers with few candidates having any ideas although many did collect “carry-back” marks for giving answers here that they should have covered in (iv).*

As always those who failed didn't give enough bookwork points, tended to brain dump rather than answer the specified question, were weak on application and scored very poorly on higher order skills. The examiners gave marks for relevant points and arguments not necessarily on the marking schedule. Q1 (iii) and Q2 (iii) were the areas that tended to sort out the passes and failures.

1 (i) Decision making

Quality of business management
Quality of the investment team that will manage their assets
Perceived level of skill
Risk management process
Expected level of service
Past performance data

(ii) Quality of business management

Ownership — A +ve financial security of larger parent, can provide capital to fund new systems, staff recruitment and provide continuity/stability of ownership.

A –ve, may be small part of bigger business given little focus, internal funds may be given higher priority.

B+ve – partnership allows clear focus,
–ve partnership structure may lead to decision by committee (all partners), meaning consensus decisions. May lack capital for investment. May be open to takeover / loss of ongoing business stability.

Remuneration policy for B encourages staff to develop the whole business and fosters an ownership interest. A has a shorter term reward structure which may encourage short term behaviour.

Stability of ownership.

Perceived commitment of Manager A's parent to the asset management business.

Neither manager remunerates investment staff on the basis of performance.

No long term incentivisation (such as deferred bonuses) as an aid to retain key staff.

Importance of incentivising fund managers and researchers/analysts separately on the basis of their respective performance.

Quality of the investment team that will manage their assets

Numbers of staff not directly relevant as no clear split between managers/support staff, however A outsources back office so has more investment staff.

We are not given any information on the age/qualifications/experience/length of tenure of staff. Likely that B has lower turnover of staff given partnership structure and longer term nature of remuneration.

Important to strike balance between long serving staff and bringing in new talent with experience elsewhere in marketplace.

Assessing staff turnover, particularly of key staff.

Culture/strength of team culture.

Decision making

Decision making by single chairperson under A ensures that a decision is made which will be implemented into portfolios. It requires a skilful chairperson to ensure that all views are effectively accounted for.

Decision by committee in B allows all to contribute but will likely result in a consensus decision which may not be the best decision or be a non decision.

Allowing manager discretion fosters individual managers to take active ownership of these funds. It also allows clients to benefit from individual manager expertise and market timing.

Not allowing any manager discretion ensures that all clients with similar mandates and objectives have a low dispersion of achieved returns. High dispersion is well and good for those with higher returns but can appear unfair to those with lower returns — which can generate business and reputational risk.

Perceived level of skill

Process — key is to have a process that allows effectively the views of key people to influence the portfolio construction. Quality of research will be a major influence. A has +ve of doing fundamental research. B uses model driven process which may limit scope for all key individuals to effectively contribute. B has advantage of ensuring that the model will at least generate a decision.

A has 10× the assets of B, meaning A will have significantly more market presence and influence than B. This may lead to an information advantage or at least the ability to have better access to investment bank research. A may suffer capacity limits in terms of executing trades in the market if their required dealing size is above normal market size. Note we are discussing a bond mandate so normal market size larger for government bonds. Will be smaller for corporate bonds. Manager A, being a manager with significant assets under management, would need to demonstrate that it can be a “nimble” investor and take advantage of investment opportunities without being encumbered by its large size.

Risk management process

We are not given any direct information on risk management processes. Some inferences can be made though — B has more direct control of back office operations.

B uses a centralised dealing desk, separating the decision making function from the dealing function may improve compliant dealing. However it may introduce time delay and rely on personnel distanced from the market makers both of which may lead to inefficient dealing.

Expected level of service

A has many more staff and many fewer clients than B. A should be in a position to offer efficient and tailored client service. Has B undergone a period of rapid expansion — it may suffer if it has not staffed up / planned appropriately.

A has outsourced back office so should be able to concentrate on core fund management business. Also better able to cope with expansion.

B has more control of back office function but it will reduce management time/focus on investment management.

Past performance data

A has higher achieved performance. A has higher active risk. Measure of skill is the information ratio $A = 1$, $B = 1$. Risk averse trustees may prefer B who has same IR but lower active risk.

Better measure is the net information ratio $A = 0.85$, $B = 0.8$. Both are high, A is better.

Lots of caveats about using past performance data:

Link between past and future performance is tenuous.

What factors, internal to the fund manager, likely to have influenced performance have changed and which remain the same.

What period is involved?

What were the economic circumstances during the period considered. At least a complete business cycle should be considered.

Were widely accepted standards for performance measurement and reporting adhered to.

Were the risk levels similar?

Are the staff who generated the past performance track record still employed, and in the same roles, at the house?

Do the managers have the same mandates/mandate restrictions? Is the benchmark the same?

- (iii) Regret aversion — Feeling of sorrow after making a decision which turns out to be wrong.

New manager underperforms.

Old manager outperforms.

Loss aversion — investors have a strong desire to avoid losses. In other words investors have skewed preferences and are more unhappy about a decision which results in a loss than they are happy about a decision which leads to the same size of profit.

In this specific the trustees will prefer an asymmetric distribution of payoffs, hoping that gains will be more likely than losses and that the chance of very large losses can be avoided. This contrasts with the symmetric view of risk expressed by the standard deviation of return, which is the commonest used measure of risk.

Overconfidence — people are generally overconfident about their knowledge and abilities. This may lead to the Trustees having too high an expectation of future fund returns as they are overconfident at selecting successful investment managers.

Framing — refers to the importance of context in the way people make decisions. The way a problem is presented to a group may influence the course of action taken.

For example if the reference point for the trustees is presented as the total return on the portfolio they may make a different decision that if they focus on the relative return.

Mental accounting — refers to the need of individuals to record, summarise, analyse and report the results of transactions and financial events. A problem can arise when individuals do not fully account for all aspects of the decision and therefore do not take a fully considered decision. An example would be where trustees split their total portfolio down into manageable parts, possible the cash element, the bond element, the equity element etc, and mentally summed these parts, without properly accounting for the covariances and hence not properly considering the portfolio as a whole.

Over simplification — This relates the human instinct to find simple rules and patterns to simplify decisions. This may lead to the trustees relying on shortcuts based on their past experiences. For example if the trustees have experience of a poorly performing manager turning into a top performing manager they may believe that this will be the general case.

Over simplification is compounded by cognitive dissonance which is the mental anguish that results from being presented with evidence that our beliefs and assumptions are wrong. More intelligent individuals can construct reasonable arguments to allow them to believe that new information is consistent with existing beliefs.

Familiarity bias — people attach less risk to things with which they are familiar. Trustees may decide to retain an existing manager or appoint a local manager rather than a new, unknown manager.

Performance Myth pitfalls — past performance data has a tenuous link to future performance. Trustees may attach too much weight or significance to past performance data when making their manager selection.

- (iv) Decision-making paralysis, i.e. no decisions means no wrong decisions, possibly holding on to underperforming managers too long.

Herding instinct/peer group behaviour — hire a well known manager, reduce scope for peer criticism if it goes wrong.

Familiarity — fear of unknown/uncertainty can lead to sticking with familiar options, possibly outdated. Slow acceptance of new innovative managers.

Consensus decision making — fear of sticking out as an individual, therefore agree on decision on a collective basis (not necessarily the best decision).

Fiduciary fear — trustees have fiduciary duties. More conservative/prudent decisions may be expected from trustees who are subject to scrutiny from regulators and stakeholders.

- (v) The term utility may be defined as the amount of satisfaction to be derived from a commodity or service at a particular time.

The utility function can be described as the trustees' preferences for different factors relating to the manager selection decision.

To derive the utility function we need to consider what factors may provide them with satisfaction (utility).

These factors will include the maximisation of returns, minimisation of risk, funding / solvency level of fund, appreciation of plan sponsors' views, low and stable contribution rates, peer group comparison.

These preferences will vary by individual trustee and also over time.

Because of the fiduciary nature of the trustees' duties and as a result of the behavioural effects described above there may be elements in the utility function which are non-financial. To this extent these factors will provide utility at the expense of purely financial factors which may result in financially sub optimal decisions.

- 2** (i) Questions that should be addressed in the benchmarking and monitoring process:
- Are the assets increasing at a faster rate than the change in liabilities? (i.e. is the Investment Strategy, as reflected in the Benchmark Asset Allocation, correct?)
 - Is the rate of growth consistent with the level of risk taken?
 - Is the asset portfolio outperforming the relevant broad market indices? (i.e. is it right to utilise Active Investment Management in each asset class?)
 - Are the asset managers outperforming their peers? (i.e. has the Fund appointed the right managers?)
 - Are the asset managers outperforming their own style specific benchmark? (i.e. are the manager skilful or is outperformance of the market or peers simply due to their style of management being in favour?)
 - Is each asset manager's target outperformance of their benchmark (net of fees) achievable, given their style of management and the level of risk taken in the portfolio? If not, should the target and/or the manager be changed?
- (ii) Benchmarks against which to measure investment management should ideally be:
- representative of the investable universe
 - transparent and unambiguous
 - easily measurable
 - investable (i.e. easy to replicate)
 - appropriate to the manager's professed investment style; and, most importantly
 - specified in advance

Benchmark should cover a large proportion of a manager's portfolio

- most of the time; and
- make it easy to set consistent subsidiary (e.g. localised) performance targets over a variety of periods

Composite or broad market benchmarks may be considered suitable, accepting they may not reflect a manager's professed style.

Managers should be assessed against bespoke style-constrained universes (e.g. smaller companies or high yield/value stocks) to identify superior selection skills

- (iii) No single “right” answer to developing a multi-region or multi-sector benchmark. Index may be built with a market-capitalisation, Gross Domestic Product-weighted, industry-average or fixed-weight approach.

The principal reason for increasing the investable universe is diversification.

At the individual stock level, multinational investment expands the universe of available opportunities and allows active fund managers to invest in companies giving the best return/risk profiles, wherever those companies have chosen to list (which may be a very different economy from that in which they derive most of their earnings).

Also, overseas currency exposure is an additional means of diversifying investment returns, although some investors may prefer to hedge this. Clearly, the benchmark used should reflect the approach taken to currency exposure.

Under a market capitalisation approach, the weight in each region reflects the market capitalisation of its stock market relative to world stock markets as a whole.

The positive features are its similarity with the investment manager's role of investing dollars in proportion to stock size and its consistency with modern financial theory. Efficient markets theory suggests “all information is in the price” and so market capitalisation should reflect all available information — although this assumes markets are efficient, the degree of efficiency for many varies.

Use of a MSCI global index will, by default, give a high weighting to the US market & the US\$. In the interests of diversification, some investors may prefer to restrict US exposure and so use some kind of fixed or capped weighting to this market.

This approach does provide a transparent and dynamic benchmark.

Particularly now that the major index providers have adjusted the component weightings to allow for free float, that part of the equity that is tradable and investable.

The major negative of market cap-weighting is that at any given time the weight reflects the historic relative stockmarket success.

There's no scope for reflecting the situation where economic prospects aren't accurately reflected in share prices and this becomes dangerous when investor sentiment grows to an extreme.

Once stock prices are inflated by positive sentiment, the market cap approach maximises the allocation to that country when the investor sentiment bubble is at its largest. Classic examples include the peaks of Japan in 1989 and the US in 2000.

Under some form of fixed-weight system the benchmark is set as a fixed allocation to each of the regions.

This provides a well-defined benchmark since fixed weights remain constant and they can be set on a forward-looking basis, rather than on the basis of past economic or stock market success.

The approach has the principal advantage of potentially maximising diversity.

Requires a subjective decision on the weights to apply and whether, and under what conditions, they should change.

It has the further advantage of being known to the investment manager at all times, thus enhancing the benefit (or cost) of their short-term tactical positions, relative to the benchmark strategy.

There are many local market index providers and often the index with the strongest local market brand recognition is not the one with the broadest market coverage e.g. Dow Jones in the US, Nikkei in Japan

The index provider may restrict themselves to just one country index.

Often such indices have long histories and are frequently recalculated and quoted.

However their lack of coverage (perhaps only 5% or less of the total market), infrequent change of the constituents, lack of adjustment for dividend income or individual stock weightings (or lack thereof) make them poor performance benchmarks.

Other providers and their indices specialise in certain sectors of the market (small cap is the most common area) and so whilst offering a good representation of a particular investable sub-universe, do not allow uniformity of comparators across markets.

The two principal multi-market equity index providers are MSCI and FTSE.

Not much differentiates these providers in their index creation, coverage, global data collection, methodology (in such areas as free float) and processing capabilities and service delivery.

The MSCI series of indices has a slightly broader coverage and capitalisation and is more easily and consistently sub-dividable into regions and capitalisation.

Indices may overstate the opportunities in a market where companies with cross-ownership are both included in the same index. This double counting of securities would distort valuation ratios and performance data, as well as market capitalisation. Each MSCI country index is constructed so as to minimize cross-ownership, assuring that all industry groups are

proportionately represented, and that each country's contribution to the global or regional index is accurately based on its true market capitalisation.

The FTSE 100 and Dow Jones 30 indices are narrow, large cap indices with intrinsic biases to certain sectors. Some investors may be uncomfortable with this and prefer broader-based indices.

- (iv) Such securities over time demonstrate superior growth and return characteristics.

Also have inherent risk not solely attributable to the relative price and information "inefficiency" of these markets.

The purpose of separate allocations is to control the level of this risk

By fixing the allocations, introduce through rebalancing limits an inherent profit-taking mechanism (monies will be disinvested from areas that have relatively outperformed and invested in areas that have previously underperformed — to the extent that all equity markets display a degree of mean reversion and similar long term performance then this may help to direct some monies to areas before they outperform).

Determination of the benchmark proportions must also have regard to the method of implementation.

Given the relatively high costs of dealing in these markets, it can be argued that rebalancing should not take place too often, so some latitude in the rebalancing ranges should be given. Perhaps cashflows to the Fund can be used to rebalance rather than selling existing holdings.

This is a very large fund — it is likely that it should consider index tracking, or enhanced indexation, for larger efficient markets. It could also consider some kind of core satellite approach for these markets — i.e. use of a passive core with high conviction active managers for a minority proportion.

Given the probable significant size of the fund's assets in relation to the average market capitalisation of the underlying companies, then indexing the smaller cap area through replication may not be possible without having a noticeable detrimental impact on market prices and liquidity.

Any sampling methodology inevitably incurs additional tracking errors which eventually offset the low risk intention of employing passive management in the first place.

In any case, the very inefficient nature of smaller company and emerging markets lend themselves to active management.

(v) Other issues:

- definition of emerging markets and small cap (established or bespoke; vary by market?)
- performance targets and objectives generally
- overall asset allocation, benchmarks and rebalancing guidelines
- method of implementation
- management of other assets
- socially responsible investment considerations
- currency exposures and management
- availability of suitable benchmark

END OF EXAMINERS' REPORT