EXAMINATIONS

April 2004

Subject 404 — UK Fellowship Pensions

Paper Two

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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Overall candidates found this paper difficult albeit that the concepts are central to the syllabus. Better candidates were those that were succinct and precise with their wording. Many candidates hinted at the answer without saying it. There was evidence of candidates resorting to repetition; perhaps in an attempt to convince themselves that they had covered enough points in their solutions.

1 (i)

- Might be advisable to have some stability in the pension value to be shown.

- The current funding rate is unlikely to remain stable in all circumstances.

- The current company contribution rate is likely to include a temporary adjustment to take account of any surplus/deficit revealed by the last valuation of the Scheme.

- The extent of the adjustment depends on the amortisation period used.

- The rate is likely to change every 3 years or whenever there is an updated valuation.

- The standard contribution rate (ignoring adjustment) is likely to better meet the stability criterion.

- However, this rate will not be stable if the average age/sex/salary distribution changes e.g. if the scheme is closed to new entrants.

- Any contribution rate to be used should ideally be durable to changes in the scheme's demographics e.g. a large influx of new entrants or a bulk transfer-in.

- Each assumption is unlikely to be met in practice, so assumptions unlikely to reflect the actual cost of providing the benefits, but rather the assumptions are used to set the pace of funding.

- The assumptions in the funding basis may be deliberately conservative leading to the contribution rate looking high.

- This may give rise to issues if members leave and compare with the value of leaving service benefits.

- Even the standard contribution rate for future service may not be appropriate for each employee for the following reasons.

    - the rate is a global rate and is not appropriate across each and every age, the young will subsidise the old

    - males subsidise females (or vice-versa!)

- the rate may assume a rate of withdrawal in which case for stayers it will be too low and for leavers it will be too high

- if no allowance is made for leavers, the possible problems of comparison with the value of leaving service benefits are magnified

- rates cannot allow for actual experience (salary increases, date of exit and reason for exit) of each individual

(ii) **General issues**

- What are company hoping to get out of the annual exercise?

- Any preference for under/over estimating cost to be shown?

- Probably determine separate rates for males/females and then weight to reflect mix of employees.

- Might need to keep separate tables for managers/others, particularly in relation to allowance for salary increases following promotions.

- Two sets of assumptions to be considered financial (economic) and statistical (demographic).

Financial assumptions

Interest/investment return

- prudent vs best estimate?

- want something more akin to best estimate

- market-related vs long-term

- rates could fluctuate markedly if based on actual conditions

- easier to communicate if long-term assumption used

- estimate by looking at what has happened in past over long periods

- based on actual assets held or matching asset for member of that age?

- easier to determine rates if have one discount rate for all members

- consider different rates pre/post-retirement
- post-retirement based on bond yields
- pre-retirement could consider higher return expected from other asset classes, e.g. equities
- should allow for investment management expenses
- and any tax payable.

Price inflation

- how important is this assumption? If all liabilities linked to RPI, could look at everything in a real scenario
- needs to be consistent with investment return assumption
- could look at conventional gilt yields less index-linked yields
- might adjust this to allow for 'risk' of holding conventional gilts in an inflationary era.
- if consistent with investment return, might want to use Bank of England projection of 2½% per annum
- more likely adjust investment return assumption derived from past experience to be consistent with price inflation averaging 2½%

Salary increases

- split into two components, general increases and promotional/seniority increases
- general increase must be consistent with price inflation (or investment return)
- could talk to company to see what they think future increases will be, given price inflation assumption
- or look at past experience of company — but care if mix of employees has changed
- or consider expected increases in national average earnings (based on past experience).

Pension increases

- depends upon rules of the scheme

- and extent to which discretionary increases are granted

- if discretionary increases are granted what allowance should be made?

- should seek guidance from trustees/company

- where appropriate assumption must be consistent with price inflation

- may need to consider position of deflation

Statistical

Mortality (post-retirement)

- is there enough data to produce own tables?

- probably not, so need to rely on published tables, possibly adjusted to reflect company/industry experience

- consider allowance for future improvements

- do geographical issues come into play?

- or size of pension issues?

Promotional salary scale

- talk to company
- review past experience

Pre-retirement decrements

- how important are these? impact of different assumptions may be negligible

- look at experience of industry/company

- only difficult one is allowance for withdrawals (discussed in solution to (1))

Proportions married/age differences

- probably use national statistics

- allow for whether benefit payable to spouse or any financial dependant

(iii) (a)

- calculate difference in leaving service transfer values over year (i.e. end of year value less start of year value)
- transfer basis may change
- even if no change, values are market-related so values can decrease to give negative amount to be disclosed to member
- this would be difficult to explain
- would reflect employees own salary increases/circumstances
- calculations can be complex
- should deduct member contributions paid in year.

(b)

- calculate leaving service value of growth in leaving service benefit over the year (in excess of statutory revaluation)
- market-related so values will fluctuate
- allowing for revaluation may give negative “growth”
- even if positive, value may be less than contributions paid by member
- again difficult communication but
- would reflect employees own salary increases/circumstances
- calculations can be complex

(iv)

- Values shown on statement made some allowance for member remaining in service until retirement age and continuing to receive salary increases until that time
- Salary increases ceased when member left service
- As salary increases are expected to be higher than the increases on deferred benefits, the value of the leaving service benefit will be lower
- Transfer value is an estimate of the amount needed to be invested to provide the leaving service benefits

- Transfer value does not include any allowance for discretionary pension increases
- Legislation/professional guidance sets out how transfer values are calculated
- Should represent a fair value for the benefits being transferred
- MFR sets a minimum on transfer value to be paid
- Transfer values are related to markets so when markets are depressed, values are low
- This is not unreasonable as future returns should be expected to be higher if starting from a lower base
- Pension values quoted on statements could not reflect actual circumstances of each member, were set so as to give reflection of cost for average member of that age
- To avoid volatile figures a long-term assumption was made regarding future investment returns
- Member's deferred benefit has been determined in accordance with scheme rules
- Transfer value is an option does not have to be taken
- Actuary has confirmed value is correct
- Trustees have disputes procedure if member still not satisfied with explanation, details enclosed
- HR director happy to pass complaint on to trustees if member wishes

(v)

- Insurance company terms need to be more conservative
- will assume investment in bonds
- transfer value assumes some investment in equities and
- allows for higher expected return form those equities
- mortality assumption used by insurance company also likely to be lighter

- cautious terms needed because no backing employer
- and reserving requirements
- loading for profit
- and commission to IFA

Other issues:

- IFA quotation may not be comparing like with like
- Scheme pension could have
    - later retirement date
    - lower guaranteed pension increases (in deferment and or payment)
    - lower spouses/dependants pension.
- Repeat transfer value is an option, member retains right to deferred pension

(i) Better candidates looked at the standard contribution rate and modified contribution rate separately and discussed cross subsidies. Few candidates talked about cost vs pace of funding, and the desire for stability.

(ii) Few candidates talked about the Company's views on what it wanted to show members. Better candidates looked at each element of the basis in some detail. This question separated out those questions who were thinking through the issues and those who were just churning out the standard points.

(iii) Poorly attempted. Many candidates chose to interpret the question as being asked to describe two methods of deriving the contribution rate.

(iv) Generally, well answered. Better candidates talked about the TV being correct, and that the member can complain if they are unhappy.

(v) Reasonably attempted.

2

(i) First three bases look at position should scheme discontinue
Ongoing basis assumes it continues over the long term

Buy out basis assumes no further accrual
Scheme wound up
Immediate and deferred annuities purchased with insurance companies
Valuation determines level of guaranteed cover for each category of benefit based upon market rates
Prior to any debts from employer
Or recovery (in the future) from pension protection fund
Annuities based on prices of long term fixed interest and index linked stocks
With allowance for re-investment of income
Insurance co includes expense margins
Set up and ongoing administration
Also include profit margins
Also likely to be conservative in mortality assumptions
Assuming mortality improvements in the future
Limited market currently in UK
Therefore relatively expensive
But probably members understanding of solvency

Cash equivalent basis secures all benefits for pensions in payment
and provides cash sum to non pensioner members
which is expected to provide accrued benefits to date
assuming all actives became deferred pensioners
based on actuaries best estimate of cost of providing benefits in the scheme
subject to minimum of MFR
cash equivalent depends therefore on investment strategy
actuaries best estimate of returns under each class
best estimate of mortality
may include an expense loading
used to see if transfer values are fully covered
transfers may be reduced if underfunded and trustees decide
expected to meet members expectations but does not guarantee them

MFR is statutory basis introduced by Pensions Act 1995
Similar approach to cash equivalent basis but
Liabilities valued on prescribed assumptions
With market value adjustment to reflect current market conditions
Due to be replaced with scheme specific funding
Currently sets minimum level of contributions payable by employer
If above 100% must pay sufficient to keep above 100%
If 90% to 100% must get back to 100% within 10 years
If under 90% must get back to 90% within three years

Ongoing basis assumes scheme continues over long term
Usually assumes benefits are met from the fund
Usually includes allowance for continuing accrual

Plus allowance for future salary inflation
Also may include salary scale if appropriate
Determines the level of contributions required over the long term
Subject to a minimum of the MFR
Assumptions usually set relative to a long term price inflation assumption
With allowance included to reflect expected return on scheme assets
Relative to gilts
Assets now usually valued at market value (possibly smoothed)
May be scheme specific assumptions on retirements and withdrawals

(ii) Funding level is the ratio of value of assets to liabilities
Assets usually valued at market value (or smoothed)
which may be volatile
liabilities are valued on different bases

buy out basis liabilities broadly move in line with prices of gilts and index linked gilts
whereas assets include some equity element
liabilities increased significantly due to lower interest rates
higher insurance company margins
improvements in mortality
less competitive market
value of equity assets fell sharply
therefore significant fall in buy out funding level

pensioner liabilities under cash equivalent basis move as above
deferred liabilities depend upon actuaries estimate of future returns
may have increased expected long term return given short term falls
basis may be linked to gilt yields
not as volatile as buy out basis
but increased liabilities and reducing asset value
has significantly reduced funding position

MFR has market value adjustment included
To reflect equity values for members more than 10 years from retirement
Gilt/Index Linked prices for pensioners
And blending in between
Therefore value of liabilities moved broadly in line with assets
Small fall due possibly to experience
And MFR assumptions not being met by market as a whole

On ongoing basis market value of assets has fallen significantly
But, possibly, now assuming higher equity returns in the future
May also have amended other assumptions
Such as salary inflation assumption, retirements etc.
Which means not as volatile as buy out basis

(iii) Is scheme to be funded assuming long term or short term approach?
Do the trustees believe Scheme will cease in the short term?
What do rules say about who sets contribution rate?
Are there any short term solvency issues to be addressed under rules?
What can the Company afford?
What is minimum rate under MFR?
What protection is there under legislation in event of a wind up?
What is the financial strength of the Company?
Current Company trading position?
Company commitment to the Scheme?
What is the investment strategy?
How is this reflected in assumptions?
Will strategy change in the future?
How conservative are the trustees?
What is the Company view?
What action can Company take if trustees disagree?
What does Scheme Actuary recommend?
Should they take legal advice on the approach?

(iv) Trustees duty to act in best interests of all members
Need strategy to deliver benefits set out in rules
Strategy must be kept under review at all times
Not just when valuation results being discussed

Need to decide whether benefits to be delivered over long term or short term
And the level of risk prepared to take
Points regarding Company covenant (part (iii))
And legislative protection relevant again (see part (iii))

Because solvency position now significantly reduced
May wish to be more cautious in strategy
Caution usually implies greater proportion of gilts/bonds
To better protect discontinuance position
But may be wrong time to switch from equities to gilts
If trustees believe equities at low value and gilts high value
Need to consider timing of any switch carefully

MFR results imply that strategy not too mismatched longer term
May wish to continue holding proportion of equities
Will need to consult with Company and consider its views on risk

Changing strategy may change ongoing funding assumptions
and have consequences for contribution rate and/or benefit structure

(i) The section on cash equivalents was not answered well; very few candidates talked about actuary's best estimate of cost of providing benefits, returns etc.

(ii) Very few candidates defined funding level. Candidates did not go into enough depth on how the assets and liabilities have changed.

(iii) Few candidates talked about investment strategy or the covenant of the employer.

(iv) Reasonably attempted. Few candidates talked about how a change in strategy might influence funding assumptions, contribution rates and benefit structure in the future. Better candidates talked about crystallising deficits, expenses and timing issues if a change is made.

END OF EXAMINERS' REPORT