EXAMINATIONS

September 2003

Subject 404 — U.K. Fellowship Pensions

Paper One

EXAMINERS' REPORT

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The examiners are mindful that a number of interpretations may be drawn from the syllabus and Core Reading. 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.

The report does not attempt to offer a specimen solution for each question — that is, a solution that a well prepared candidate might have produced in the time allowed. For most questions substantially more detail is given than would normally be necessary to obtain a clear pass. There can also be valid alternatives which would gain equal marks.

J Curtis
Chairman of the Board of Examiners

25 November 2003

Faculty of Actuaries **Institute of Actuaries**

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1 (i) Retirement pension of 2/3rds of final remuneration (FR)
Final Remuneration is calculated in accordance with Inland Revenue requirements
Earlier salaries can be indexed
No salary cap
Tax free lump sum of 1.5 times FR (to be commuted from retirement pension)

Pension age 60
Increases in payment at RPI, subject to a minimum of 3% p.a.
Death in service lump sum of 4 times salary
Spouses pension in service: 2/3rd times prospective pension
Spouses pension in retirement : 2/3rds members pension (before commutation)

Children's pensions — as for spouses, but 1/3 not 2/ 3rds
Non contributory
Contracted in to S2P / SERPS

(ii) Depending on age and salary, may be possible to provide balance of 2/3rds promise under funded exempt approved occupational pension scheme, the max benefit being:

1/30th × FR × service (max 2/3rds, including retained benefits)
Based on capped salary
But can always provide $1/60^{th}$ accrual (max 2/3 capped salary) ignoring retained benefits
If this is not possible, provide maximum benefits possible under OPS, with balance of benefits by:

Funded unapproved retirement benefit scheme (FURBS)
Set up under trust
No specific benefit limits at retirement age
All benefits can be commuted for cash
Death benefits not subject to inheritance tax
Employees taxed on employers contribution as benefit in kind
Tax relief on employer contributions
No tax relief on employee contributions
Investment income and capital gains subject to income tax / CGT

Unfunded unapproved RBS
Similar to a FURBS
But employee pays tax when benefits are received rather than when employer contribution made

(iii) All benefits under exempt approved OPS (if possible)
Advantages: Can match previous promise in most respects
Disadvantages: May not be possible to provide the same level of tax free cash

FURBS
Advantages: Benefits can be taken as cash
Security, set up under trust
No limits on benefits
Death benefits not subject to inheritance tax
Disadvantages: Employer contributions taxed as Benefit in Kind
Benefits taken as income are taxed (effectively twice)
No tax relief on employee contributions

Unfunded unapproved scheme
Advantages: Not a Taxable Benefit in Kind
Disadvantages: Lack of security
Cash benefits are taxed

The answers to this question were variable. Candidates' interpretation of 'comparable' benefits varied. Better candidates stated the new employer could provide maximum benefits through the approved route and top up with UURBS or FURBS. Many lost easy marks by not mentioning the bookwork pros/cons and tax differences in UURBS and FURBS.

2 (i) Continuation of the scheme with no further accrual of benefits
Transfer of liabilities to another scheme with same sponsor
Transfer of funds to an insurance company to invest and provide benefit
Transfer of liabilities to an insurance company to guarantee the benefits

(ii) Transfer to beneficiary
Central discontinuance fund

(iii) Continuation
Suitable if company wishes to continue to relate (past) benefits to final salary

But company will probably need to continue paying contributions to meet deficit
Avoids / postpones costs associated with disinvesting / transferring assets
Any future surplus only likely to benefit those who are members at the time

Transfer of liabilities to another scheme
There needs to be such a scheme
Receiving scheme may require that benefits are adjusted to take account of deficit unless sponsor agrees to underwrite the deficit
The form of the benefits may need to be adjusted to match those of receiving scheme

Transfers may need actuarial certification, or member's consents

Transfer fund to insurance company
Benefits will depend on terms of policy, future investment experience, and methods used to provide annuity to investor
Ultimate benefits may be quite different from those accrued under scheme

Guarantee benefits by insurance company
Protects member against adverse experience
May be difficult to find insurance company willing to quote for this
May be expensive due to contingency loadings/profits/expenses

(iv) Transfer Values
Trust Deed and Rules — how are benefits calculated on cessation of accrual

Consider statutory requirements
E.g. debt on employer regulations
Consider professional guidelines, GN11
What was the investment policy of the scheme, before the cessation of accrual

What changes, if any, are proposed
How does the current TV basis need to be amended to take account of the scheme's future investment policy
And / or to remove the valuation of discretionary benefits (e.g. increases is payment)
What allowance needs to be made for future expenses
e.g. if the scheme were to be wound up
How long are transfer values to be guaranteed for
Allowing for above points, what is percentage cover for accrued benefits
Transfer values need to be neutral to the fund, and not increase any deficit

Early retirements
Trust Deed and Rules — what basis, if any, is laid down
Does this still apply after the cessation of accrual
If recent practice has gone beyond what is laid down, does the company wish to
Maintain it in the short term
Even if this might require a lump sum injection to the fund for each early retirement
Consider any statutory requirements,
E.g. to cover GMPs
And professional guidelines, GN11
If none of the above suggests a particular basis
And company requires that early retirements are neutral
Consider providing benefits equal in value to transfer value, taking account of funding position of the scheme
Allowance for discretionary pension increase

Most candidates scored well on parts (i), (ii) and (iii). Part (iv) was poorly answered by most candidates who rattled off the book work on transfer values (including details of GN11) and early retirement instead of specifically addressing the factors to consider to review the bases.

3 (i) Contribution rates must meet the requirements of the MFR regulations.
And be certifiable by the Scheme Actuary.
Including adjustments for underfunding if it arises.
If statutory surplus then removal of this must be taken into account in the contribution rate
Schedule of contributions must be agreed between the Trustees and the Company following a valuation.
If no agreement between Trustees and Company then the trustees can impose a minimum MFR schedule between 8 and 12 weeks of valuation being signed
Company must pay contributions in accordance with that agreed schedule.

(ii) (a) Balance of power with Company.
Both with regard to contributions (assumed to cover the cost of accruing benefits) and expenses.
However Company has a duty to consult actuary — who has professional responsibilities.
Depends who has appointed the Actuary: Trustees or Company.
Possible Conflicts of interest for the Actuary.

(b) Ultimate power with the Trustees.
If no reference to an actuary, would the contribution meet statutory requirements.
But presumably Trustees could appoint an actuary to advise them.
Company has absolutely no influence,
which is unusual as sponsor to the Scheme
Would the trustees add expenses into the contribution or meet them separately from the fund.
How would trustees deem "securing the benefits" i.e. buy-out basis, closed scheme discontinuance, cash equivalent etc.
Trustees power to impose a restrictive basis

(c) Actuary holds the balance of power.
Whether this is good for company or Trustees depends on who has appointed the Actuary.
Is it sensible for power to rest solely with a third party?
If both Company and Trustees appoint <u>an</u> Actuary which is <u>the</u> Actuary?
What allowance for expenses would the Actuary make?

(iii) The order would be (b) then (c) or (a)

As the Trustees act in interests of all beneficiaries giving them control is likely to be the most secure route, hence (b).

Provided expenses are either negotiable or included in the "contributions".
If expenses are significant and deducted from the fund then (b) could be worse than (a) where company meets expenses.

(a) and (c) both involve the Actuary setting the contribution rate, although (a) has consultation with Company.
If company cash rich then to all intents and purposes the rates under (a) and (c) are likely to be equal and similarly secure.
Unless the Actuary appointed by different parties.

(iv) The order would remain (b), (c), (a)
Again the duty of the trustees under (b) gives greatest security.
But the professional duties of the actuary under (c) are likely to give greater than (a).
Under (a) the actuary is likely to be pressured into reducing the contribution rate by the Company.
Conflicts of interest might arise.
(b) may give poor security if Company decides to close/wind up scheme

(v) Under (a) the members will pay half of the expenses plus half of the contributions. This is not necessarily the case with other definitions.

However, if expenses taken from fund then ultimately the members will still bear half of them.

Although Trustees may also be members, under (b) the contribution rate is likely to be highest.

This gives good security for members benefits but the members themselves are paying for half of that extra security.

Under (a) the Company is likely to try and keep its contribution rate down, hence member rate lower also.

What is "best" for members depends on whether they are concerned with their cash in hand (probably younger members) or the security of their pension promise (older members).

From cash viewpoint (a) is best

From security viewpoint (b) is best

Members may prefer independence of (c)

Most candidates stated just the basic MFR and statutory surplus restrictions in part (i). In parts (ii) to (v), many candidates were too dogmatic stating that the employer only wanted to save costs and the actuary was the 'purist' who only had the members' interests at heart. Better candidates mentioned the potential conflicts of interest and specific points under each option (e.g. security of benefits, etc).

4 (i) SERPS: Applies to accrual before 6/4/02
For given member, same accrual rate for earnings between LEL and UEL

S2P: Applies to accrual after 5/4/02
3 sub-bands of earnings with different accrual rates:
40% between LEL and Lower Earnings Threshold
10% between LET and Upper Earnings Threshold
20% between UET and UEL

So focuses on lower paid
Extends to carers and long-term disabled
Ultimately intended to be flat rate for those under 45 at point of conversion
If employee contracted out, different top ups from the state (e.g. depending on earnings)

(ii) By means of a defined benefit scheme
Scheme benefits must be at least broadly equivalent to those of the Reference Scheme
At least 90% of members and spouses must receive benefits which are at least as good as they would be under the Reference Scheme
The Reference Scheme structure is:

Pension age	65
Accrual rate	$1/80^{th}$
Pensionable Salary	3 year average of 90% of earnings between LEL and UEL
Spouses pension	50% member's accrued pension

Reasons:
Company wants to give overall package (e.g. 60ths accrual) to include state benefits
From PR point of view, pension package provided by employer looks "better" than if state benefits were separate
Integration with state benefits can be complicated
And would only be approximate
Can be attractive financially
e.g. if scheme has young age distribution
Company expects to invest monies on better terms than implied by Government Actuary's assumptions

Company can use NI rebates to finance part of scheme benefits
If scheme contributory, employees receive tax relief on contributions equivalent to NI rebates

By means of a moneypurchase scheme
Scheme must make a specified minimum payment into individual member's account
Equal to the sum of the reduction in NI contribution for employer plus employee plus age related rebate, if applicable
Accumulation of min payments must be used to provide benefits in specified format
e.g. not before age 60, pension increases, spouses pension

Reasons:
Employer willing to offer a service to employees which is possibly more attractive
than a personal pension, e.g.
More attractive contract terms,
Such as lower expenses
Monies invested on average sooner
From PR point of view, pensions package provided by employer looks "better"

e.g. if there is an overall contribution rate of *x*%, including NI rebates

(iii) Cannot provide certificate if no active members, and actuary is aware of intention not to admit active members
Actuary can sign certificate if:
Benefit structure is better than reference scheme in all respects (without further Investigation)
Benefits are broadly equivalent to or better than the reference scheme tested

Tested separately for members and spouses benefits
No more than 10% of members or spouses fail the equivalence test

Investigations:
Consider active members at ED of certificate
Use latest available remuneration data,
Usually for one year
If this relates to period ending before effective date, ask employer about any recent significant changes
If one year data appears abnormal and employer confirms this, can use 3 year data
In other respects consider quality of data, and comment on any reservations

Allow for anticipated membership changes
Benefit comparison looks at next 3 years

Benefit comparisons for spouses to consider death is service, death in deferment and in retirement separately
Comparison of values to use assumptions in GN27
Member assumed to retire at normal pension age
If more than one scale, consider each separately
Ignore lump sum death benefits, discretionary increases, money purchase benefits

Most candidates scored fairly well on this question. In part (i) some candidates mentioned the similarities between the two, though the question only asked for differences. For part (ii) many candidates did not state why a scheme would contract out for ***each*** *method.*

5 (i) National Average Earnings
Price Inflation (with perhaps an upper or lower limit)
Modified price inflation e.g. multiple, or inflation +/- a margin.
Discretionary
Fixed rate e.g. 3% p.a.
Nil

(ii) High early salary growth implies RCA scheme could be costly.
Therefore the revaluation must be low or RCA will end up costing more than final salary scheme.
Suggest no or <u>low</u> fixed rate revaluation.
Provided this does not reduce purchasing power too much.
The pension at retirement should reflect career pattern.
And should not unduly inflate the earnings in the early past of that career.

(iii) (a) Have all existing FS scheme members been through the training program.
What allowance for future salary growth is to be made in the transfer value.
What form of benefits is to be offered in the RCA scheme, in lieu of transfer value.
If transfer out and in assumptions wholly realistic then should be little cost implication from past service.
The costs of future service are similar to those in part (ii)
Is the transfer value to be guaranteed for any length of time, how long.

What is the average age of the existing FS scheme membership.
Are they to be offered a "one-off" chance to transfer only, or at any future date.

(b) Could limit the opportunities to join/transfer to avoid selection
Reduce guarantee period to limit selection.

(iv) Final Salary Scheme

$^{30}/_{60} \times 20{,}000 \times 1.08^5 \times 1.02^{25}$ = £23,633 (as last increase not effective and FPS based on last year's earnings)

RCA. With nil revaluation.

$^{1}/_{60} \times$ $(20000 + 20000 \times 1.08 + 20000 \times 1.08^2$

$+ 20000 \times 1.08^3 + 20000 \times 1.08^4$

$+ 20000 \times 1.08^5 \times (1 + 1.02 + \ldots\ldots 1.02^{24]}]$

$= {}^{20000}/_{60} \times [1 + (1.08) + \ldots . (1.08)^4]$

$+ {}^{20000}/_{60} \times 1.08^5\ (1 + \ldots . 1.02^{24})$

$= {}^{20000}/_{60} \times [(1.08^5 - 1)/0.08]$

$+ {}^{20000}/_{60} \times 1.08^5 \times [(1.02^{25} - 1)/0.02]$

= 1955.53 + 15687.67

= 17643 or **75% of FS.**

(v) RCA with RPI revaluation

Following similar principles to (iv) the answer can be derived as 26523 or **112% of FS.** Alternative estimate is $1955.53 \times 1.03^{22.5} + 15687.67 \times 1.03^{12.5}$ = £26,503 (still 112% of FS), assuming revaluation for half the o/s term.

As there is now revaluation the answer is higher than (iv) as expected.

The answer is also higher than Final Salary scheme

As a result of the high early salary progression this means that the early years' salaries are now being revalued at a higher rate than the later salary increases actually awarded.

For this workforce and salary profile a revalued career average is not cheaper than final salary.

And consideration should be given to restricting the revaluation rate, perhaps to maximum of actual annual pay increases.

Or amending remuneration strategy, or introducing DC scheme.

Most candidates scored well on part (i). For part (ii), better candidates argued for and against two or three types of revaluation. Part (iii) was poorly answered, with well prepared candidates commenting on the pros/cons of transferring to CARE, and practical points like administration costs. Some candidates scored well on part (iv), but few missed marks by mis-reading the question (e.g. wrong salary growth assumption) and calculation errors - perhaps reflecting that many ran of time on this question.

Some candidates missed the easy marks on part (vi), again possibly because they ran out of time. Better candidates stated why the two results were different and the implications to the employer &/or members.