EXAMINATIONS

September 2001

Subject 404— UK Fellowship Pensions

Paper Two

EXAMINERS' REPORT

Examiners' Comments

Question 1

In general, many candidates failed to tailor their answers to the specific wording of the question. Q1 required candidates to switch between

- how the **Actuary** can advise the Trustees (rather than what the Trustees should do)
- issues the **Trustees** should consider regarding the discretionary pension increase
- factors **Employers** should consider (rather than the Trustees or the detailed issues the Actuary faces in setting a TV basis)
- issues **Trustees** have in operating the closed DB plan
- advice to the **Employer** re the MFR and requirement to contribute

Whilst the question referred to the Scheme Actuary, candidates who focused on the specific issues to the appropriate party for each section consistently scored better (and more quickly) than those that appeared to be advising the Trustees throughout.

(i) Actuarial Control Cycle

Generally answered well - credit was given for those candidates that included detail appropriate to section (iv) here.

(ii) Discretionary Pension Increase / Issues on Use of Surplus

Most candidates concluded that some sort of ongoing approach would be appropriate - few candidates were clear about whether or not the trustees would be prepared to award an increase that would worsen the discontinuance position, however.

(iii) Transfer Values

Lots of detail was included by many on the actuarial approach. This did score some of the marks, but discussion on the commercial issues of interest to the employer (e.g. encouragement to transfer and reduce DB risk, desire to minimize windfalls for early leavers) was needed to score well on this section. Few candidates considered mechanisms for delaying the release of the full PSR to transferrees.

(iv) Other Issues

Issues specific to running a closed scheme were required here. Many of the points on this section of the marking schedule appeared elsewhere on candidates' scripts - appropriate credit was given. Candidates who just listed all the responsibilities of the trustees without relating them to the specific situation in the question took longer to achieve similar (or lower) marks.

(v) Need for Contributions

Very few candidates mentioned explicitly that a 120% MFR result at the valuation does not necessarily mean a nil schedule of contributions, or referred to the worse of the actual and notional positions. Some candidates effectively repeated their answers to section (ii), explaining again the different approaches available and stating that an ongoing basis, with salary increases, pension increases was a better approach (without explaining in detail the weaknesses of the MFR basis).

Question 2

Again, some fairly careful reading of the question was rewarded here. Sections (i) and (iii) were both consistently answered well, the other sections less so.

(i) Several candidates interpreted the accrued pension amount to mean that all members were deferred (and valued them based on revaluation rather than salary increases) - this was inconsistent with the rest of the question. Few candidates stated explicitly what approach they were using to value the liabilities (market related, long term assumptions with MVA, MFR etc.).

(ii) This question specifically suggested a three-part structure for answers. Many candidates focused purely on the first part, and many also got distracted by risks that face other parties (e.g. Trustees). Some candidates focused specifically on the issues in relation to the past service transfer, rather than the more general risk of DB benefit provision. The better candidates related their answers to the risk averse nature of Company A outside its area of expertise, and the size of the pension liabilities relative to companies A and B.

(iii) Generally answered well, Candidates that explained briefly why items would be useful (which was not specifically asked for) often scored points in sections (ii), (iv) and (v) - e.g. getting the last valuation report means we know Scheme C's funding basis/status, which will help us in negotiating the transfer payment. Getting Company accounts will enable us to consider the FRS17 impact of the transfer.

(iv) Most candidates included a lot of detail on the complexity of the calculations around the participation period which earned some credit. Many, however, missed out on the more basic structure of a typical Pensions Schedule and the obligations imposed on each party to it.

(v) Few candidates picked up the marks available for stating that in any commercial transaction, a negotiation takes place, the seller will want to pass over as low an amount as possible, and the first offer is likely just to be a starting point. Most candidates made some reference to returns on equities and gilts.

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(i) **Control cycle**

- Specifying the problem:
    - assessing the risks
    - analysis of alternative strategies
- Developing solutions:
    - calculating reserves on appropriate assumptions/model
    - determining any contribution requirement
    - investment and reinsurance options
    - discussion of alternative solvency definitions
- Monitor experience:
    - identify causes of surplus or deficiency
- Apply professionalism:
    - in particular, be aware of potential conflict of interests between employer/trustee

(ii) **Issues on use of surplus**

There are several different measures of surplus, including:

- MFR
- Buy-out/wind-up
- GAD statutory surplus
- Projected benefits basis

MFR surplus is not likely to be meaningful — see part (iv).

The trustees may not be willing to worsen the buy-out position below 100% so as not to reduce members' security — in view of the fact that eventually the scheme will be wound up.

Indeed they may want an additional margin to cover future salary increases.

However, a buy-out figure will only be an estimate of what insurance companies might charge if the scheme actually wound up.

(even if they actually get quotes from an insurer)

Also, the trustees may decide that the scheme is large enough to operate as a closed scheme even without the employer's support, GAD surplus is unlikely to apply, but if it does then appropriate action needs to be taken.

The trustees may therefore base their decisions on a projected benefits basis which allows for the scheme's likely future experience,

In particular, allowing for the expenses of operating a closed scheme,

And for the intended sustainable practice of discretionary benefits.

The trustees may request the actuary to make cautious assumptions so as to retain surplus in the fund to minimise the risk of deficits arising in future.

On the other hand, adopting too cautious an approach may not be in the interests of all beneficiaries,

for instance those who will not survive to an eventual distribution of surplus.

The trustees will also consider the extent of the employer's commitment to pay contributions if deficit arises.

(iii) **Transfer values**

As a minimum, transfers will have to be on the leaving service transfer value basis

- which broadly cannot give lower values than the MFR basis
- though it may allow for discretionary benefits

However, employees are being asked to give up a benefit linked to future salary growth, and so will look for some enhancement over LSTVs.

The employer may want to offer enhanced transfers

To encourage people to transfer and so reduce the legacy DB risk.

And to make it easier for him to sell the overall package to his employees.

Since employees may be given financial advice about their options or seek it themselves, it may cause industrial relation problems if the employees do not perceive the transfer terms as fair.

On the other hand, if the transfer values are very generous, then this will give a windfall to employees who will leave service soon after.

Since employees can choose whether to take the transfer, there is a danger of selection.

The employer could look for ways to minimise any such windfalls

- for instance not crediting all of the enhancement at once, but spreading it over future service (if the rules of the schemes permit this)

- or by paying no transfer enhancement but explicitly paying additional future DC contributions to those employees who transfer

  (although this may leave extra funding in the DB scheme which the employer cannot access)

The employer will also need to consider that the trustees cannot authorise transfers which give active members more than the scheme can afford.

(iv) **Other issues**

Trustee powers will be set out in the trust deed and rules

Although it may not be specific about closed scheme situation

- a key point will be under what circumstances the scheme will be finally wound up

The trustees' options will also be constrained by whatever they have already agreed with the employer in moving to a closed scheme.

In general, the trustees will need to operate within trust law and the appropriate legislation,

- to exercise their powers in the best interests of all members
- without favouring one group of members over others.

The main option will be to do with the investment of the scheme's assets

Investment strategy will need to be reassessed in view of the closure.

The trustees will look to minimise the risk of deficits arising through a mismatched investment strategy.

Another option will be to purchase annuities for retired pensioners

Or to obtain some insurance against members living longer than anticipated.

There will also be some other trustee discretions regarding benefits, for instance on early retirement or commutation.

Keep actuarial factors under review

The trustees may also have the power to require the employer to pay contributions even above the MFR minimum as a condition for keeping the final salary link going.

(v) **Need for contributions?**

120% MFR level may not be sufficient now because MFR is not a best-estimate of the future.

It is a prescribed basis which may not be appropriate to this scheme's circumstances.

It makes no allowance for future salary increases

It makes no allowance for discretionary benefits

Also, future experience may be adverse, even compared to a best estimate. Mortality maybe less than assumed (note that MFR mortality has not been updated)

Pension increases may be greater than assumed

(note that MFR understates the cost of LPI increases in current economic conditions)

Investment returns may be less than the assumed discount rate

(note that MFR discount rates cannot be matched by actual investments)

Also, the contribution requirement on MFR is set by the worse of the notional and actual positions — notional may be significantly lower, so that conceivably there could be a contribution requirement even if there is a MFR surplus.

Also, MFR is likely to be reviewed it may be strengthened, so reducing the funding level.

The employer will prefer not to make any contributions unless required by legislation/trust deed, because it will be difficult to subsequently extract any over-payment (with hindsight).

So the conclusion may be that no contributions are currently required,
but that the employer should be aware that this may not continue to be the case.

2 (i) *This is an example, amongst possible valid solutions.*

Assumptions

- This is an approximate economic cost of discontinuance liabilities
- Real discount rate based on approx current IL gilt rate say 2% pa plus ½% pa for liquidity premium i.e. net 2½% pa
- (Nil withdrawal before retirement)
- LPI is –¼% pa in real terms (assume paid continuously)
- 100% male
- Mortality is PA90-2 [An approximate or estimated annuity is acceptable]
- Proportion married is 80%
- Spouse's contingent pension is 50%
- 5 year guarantee with overlap
- Cash option has same value as annuity
- $£25\text{m} \times 1.025^{-15} \times \left(\bar{a}_{\overline{60:\ 5|}} + 50\% \times 80\% \times \bar{a}_{60|57}\right)$ at 2.75% pa
- Answer is c £300m

(ii) *Potential liabilities*

- Pensions proportional to service and final salary while in service
- and then RPI capped at 5% over whole period between leaving and age 60
- and then RPI capped at 5% each year in payment
- The expenses of running the scheme
- Lots of new joiners (if leave scheme open)
- There may be generous early retirement over which the company has no control in which case a flood of early retirements (e.g. on redundancy) is a potential liability

- If the funds are insufficient then debt on employer legislation means that Company A would have to meet the deficit if the scheme were wound up

- The statutory minimum funding requirement (MFR) places a minimum level of contributions on Company A

- The MFR can require a short term cash contribution if the scheme falls below 90% of the MFR …

- … although this is being phased in

- The MFR is impossible to match on any thing other than a short term basis

- If the scheme is wound up, then liabilities which are not transferred will need to be secured with an insurance company. The terms for this depend on long-dated real and fixed interest rates – these could move against the company compared with the assets held

- The costs of the pension benefits are dependent on long-term (mostly real) interest rates – these could move against the company (i.e. fall)

- Mortality could improve more quickly than expected

- The scheme is exposed to legislation risks e.g. the Government, ECJ or Ombudsman decide to improve benefits, tighten up the MFR (which is under review), increase the burden of legislation with which the scheme has to comply

- The contracting-out rebate could fall

- If the company is concerned regarding its accounting numbers then the introduction of the new accounting standard FRS 17 (previously known FRED 20 when in draft) will result in a volatile balance sheet in two years' time

Management/mitigation of risks

- Company A controls salaries (subject to market constraints) and therefore has some control. All employees will be actives initially.

- Can reduce debt on employer risk and liabilities generally by …

- investing in assets which match the liabilities well (i.e. long-dated real and fixed debt), …

- but this can create short-term risks unless the scheme is funded well above the MFR,

- closing the scheme to new entrants

- change benefits for future service to contain a lower element of final salary
- winding up the scheme

Factors which may reduce control over risks

- Other than insurance there are no perfectly matching assets for final salary benefits
- Current employee expectations are likely to be that the final salary scheme will continue so tampering with the scheme may be difficult
- Union affinity for final salary scheme will probably make this even more difficult
- Section 67 of the Pensions Act and any clauses in the deed and rules which restrict powers of amendment
- Some of the powers (e.g. investment policy) vested with the trustees, not the company

(iii) *Info required in relation to Subsidiary B – call Company C's scheme Scheme C*

- Scheme C deed and rules, …
- agreed or proposed amendments
- Member booklet(s)
- plus all announcements or other communications to members regarding pensions
- details of any promises made in employee contracts regarding pensions
- Scheme C's latest formal triennial valuation report
- Scheme C's latest trustees' report and accounts
- Confirmation of whether there are any other approved schemes, unapproved schemes or ex gratia promises payable by Subsidiary B
- Any part of heads of agreement which refer to pensions
- Any proposed pensions schedule or actuary's letter
- History of exercise of any discretionary company or trustee powers, …
- e.g. early retirement on favourable terms

- Data so you can value Subsidiary B employees' benefits

Info from Company A

- How much detail they want you to go into
- Division of responsibilities between actuary, lawyers and corporate finance advisers
- Current company accounts
- Plans for members post acquisition, …
- … e.g. whether redundancies are planned

(iv)

- Details will be specified in a pensions schedule to the sale and purchase agreement
- Detailed actuarial assumptions are usually set out in a separate "actuary's letter"
- Assets can be transferred in cash or "in specie" – i.e. transferring the assets themselves
- In specie works to both Company A and Company C's advantage …
- … because they can split the saving of unnecessary asset redemption and reinvestment costs …
- … to the extent they would both hold the same assets
- The transfer will actually take place between two sets of trustees, not the companies
- Because Company A does not have an existing final salary scheme, it will need time to set one up …
- … and therefore it is normal to provide for Company A to participate in Company C's pension scheme in respect of Subsidiary B employees
- There are essentially two ways of doing this: calculate the amount at the date of completion or at the date employees transfer to Company A's new final salary pension scheme
- In either case, the payment date will be after the date of calculation and so a method of agreeing how to roll up the figures to allow for investment return will need to be agreed

- The transfer will need to be subject to certain minima to ensure that it is acceptable to the trustees of Company A's new final salary scheme, such as the MFR and some measure of cash equivalent
- If Company A can negotiate any minima on an individual basis (rather than an aggregate basis then this may increase the transfer value depending on how strong the basis is relative to the MFR at all ages)
- If Company A has plans to make material redundancies during the participation period then this will affect how it is most favourable to treat withdrawals during the participation period
- (providing the transfer basis is more generous than the cost of the deferred pension and therefore there is a profit from withdrawals)
- The sale and purchase agreement will specify the Company A's obligations
- This is to the disadvantage of Company A …
- … to the extent its future flexibility is constrained
- Constraints which don't already apply to Subsidiary B's members (e.g. in relation to future service) should be resisted as these are reducing Company A's flexibility beyond what applied to Company C
- The sale and purchase agreement will specify the Company C's obligations
- This is to the advantage of the Company A …
- ... because it gives Company A a means of ensuring that Company C will do things after the consideration has been handed over, such as any items mentioned above and:
- providing relevant information,
- using best endeavours to ensure that the trustees pay over the agreed transfer amount,
- making good any shortfall if they don't,
- obtaining necessary approvals from the authorities (PSO, CA)
- The sale and purchase agreement will contain warranties which will give Company A some (limited) comeback if insufficient disclosure has been made at the time of the deal
- The sale and purchase agreement will contain a procedure for settling disputes which is probably to both companies' advantage (unless they intend to play "dirty")

- The transfer could be made with or without member consent
- The advantages to Company A of going with member consent are that
- it helps ensure that members have thought about and are therefore more likely to value their pension benefits,
- participation in the new final scheme can be made conditional on members consenting to transfer in which case any who don't consent will save costs,
- it is probably safer for Company A from the legal risk angle.

(v) (a) why Company C's actuary might put forward this basis

- it's lower – this is part of a commercial transaction, and
- it is standard practice to start low
- the actuary to Company C's scheme may believe that this is a valid approach
- Company C may fund its scheme on this type of basis
- this traditional approach is still fairly common for scheme funding in the UK

(b) The answer to this part depends on whether you consider it reasonable to estimate equity returns and use this number to discount defined benefit liabilities. There are two versions to this answer depending on the answer to this question. The following assumes that there is separate adjustment to the consideration to adjust for the under-pricing of the bulk transfer value.

Version 1

- It is reasonable to use estimated equity returns to discount defined benefit liabilities because
- pension scheme liabilities are long-term, and
- over the whole of the 20th century, UK equities have consistently outperformed gilts (including index-linked gilts for the periods they've been available) over any ten year period
- equities are a good match for salary inflation
- non-profit deferred annuities are priced by reference to gilt returns and therefore "expensive"

- the market for non-profit deferred annuities is not liquid – there are really only three participants – and therefore this overstates the cost

(b) This is the sort of thing people who consider it unreasonable would say

Version 2

- It is not reasonable to use equity returns to discount defined benefit liabilities because

- this is essentially no different from Company A acquiring more corporate debt and therefore the discount rate should be linked to long-dated interest rates (i.e. bond discount rates)

- all other financial contracts which pay defined amounts are priced by reference to interest rates for the relevant term (i.e. bond rates) which indicates that this actuary's approach is out of touch

- equities are risky in the longer-term as well as the shorter term – there are only five 20 year independent periods in the 20th century to check this and the UK is unique in the world in having such continuous equity out-performance – other countries (e.g. Germany, Japan) have found equities to be very risky

- Company A will be taking on a net liability for no payment – if the scheme is wound up there is a cost

- If buy-out rates are so obviously expensive then one would expect other parties to enter the market, make super profits and drive the prices down

(c) This is a commercial transaction and therefore the deal is all about the total consideration paid for the business – pensions is just a part of this

Company C can respond by

- adjusting the consideration it proposes to pay to compensate for the lower transfer value

- threatening to walk away if the amount is sufficiently material to be a deal breaker

- putting its case for a higher transfer value on logical grounds

- obtaining a second opinion from a third (independent) actuary

- comparing the approach with what was set out in any heads of agreement – these may give weight to Company C having to adopt a more prudent approach

- checking whether Company C actually funds on this basis – if it funds on a more prudent basis then this can be used to argue for a higher transfer value. Company C may decline to disclose this information but that in itself is ammunition

- checking Company C's SSAP 24/FRS 17 disclosure to see if this would give Company A leverage

- noting that FRS 17 (and FAS 87 if it applies) will require a bond discount rate to be used and therefore Company A may be taking a hit on its balance sheet (depending on the accounting approach used for the transaction – check with the accountants)