Faculty of Actuaries **Institute of Actuaries**

EXAMINATIONS

September 1999

Subject 404 — UK Fellowship Pensions

Paper Two

EXAMINERS' REPORT

In the main, report layout was good but many candidates used jargon and abbreviations thereby losing drafting points. As for content, candidates did not make enough valid points overall. In particular in parts (ii), (iii) and (iv) the range of issues identified was narrow and many candidates scored very poorly indeed.

Additional comments appear at the end of the solutions.

1 The report should be written in clear non-technical language appropriate for the sub-committee. It should be structured and logical. The full scope of the drafting marks were awarded to differentiate those who made a serious attempt at drafting.

(i) The parties with an interest in the transaction are:

- **the Company**
- will be interested in acting on behalf of its shareholders
- but has a duty of good faith to the Scheme members
- **the trustees of Scheme A**
- **and Scheme B**
- will be interested in acting in the best financial interests of the scheme members
- but may recognise the interests of the company
- if the company could wind up the scheme
- **the actuary to Scheme A**
- **and Scheme B**
- may act for the trustees
- or for the company
- actuary may need legal advice
- both sets of trustees need an actuary
- actuarial role not normally adversarial
- so possible for the same actuary to act for both trustees
- but more recently trend is for separate advice
- to avoid any potential conflict of interest
- an independent actuary may be specified to adjudicate on any areas of actuarial dispute
- company may need independent actuarial advice
- **the legal advisers to Scheme A**
- **and Scheme B**
- more common for lawyers to take adversarial positions
- and likely that the trustees will have separate representation
- auditor
- **the tax authorities**
- to ensure the transaction does not result in breach/abuse of the scheme's tax privileges
- **the contracting out supervisor**
- to ensure contracting-out commitments and rules are honoured
- **all members of both schemes**
- their benefits which are affected

(ii)

- a merger is the transfer of assets
- and liabilities from one scheme to another
- whereupon the transferring scheme winds-up
- or from both schemes to a new arrangement
- it will be effected by written agreement between the company
- and the two sets of trustees
- both sets of trustees must agree that the merger is in the best financial interests of the members they represent
- although they would normally take legal and actuarial advice in forming that view
- the trustees of the transferring scheme
- are required either to seek consent to the transfer from the members

- or to seek a certificate from the actuary under GN16
- declaring that in the view of the actuary the members are not materially worse off under the new arrangements
- if consent is sought the trustees need to ensure the members have sufficient information to make an informed decision
- there is no requirement for actuarial certification to be sought by the trustees of the receiving scheme
- and arguably the requirements are less onerous for the receiving scheme trustees (they can take a more flexible view)
- for this reason, it is common for poorly funded schemes to transfer into better funded schemes
- i.e. Scheme B would transfer its assets and liabilities to Scheme A in this case
- however, need to ensure the terms of the trust of the receiving scheme are appropriate in the long term (balance of power between trustee and company)
- if a small number of members would make communication easier.
- under GN16, an actuary would be unable to sign the certificate if:
  - accrued benefits had reduced
  - the ongoing security of accrued benefits had reduced
  - the security of benefits on winding-up had reduced
- note that the test is on accrued benefits only, and does not impact future service benefits
- reductions to the amount of accrued benefits are now not possible under S67 of PA95 in any case
- it used to be possible to protect accrued benefits on winding-up by ring-fencing them
- but this is no longer possible under PA95
- because a statutory set of priorities applies to the winding-up
- ongoing security is mainly relevant for the award of discretionary benefits
- and the actuary should consider the existing practice of both sets of trustees in forming his view
- and the impact on the schedule of contributions
- it is usual to consider the position of individual members
- rather than the group as a whole, when considering the certificate
- because of the reduced flexibility on winding-up

- it is increasingly common for the company to have to make cash injections
- to bring the funding position of the merged scheme up to the funding position of the better off scheme
- or at least offer guarantees/secured debt
- in this example, such a cash payment would be £10.5m
- which may well cause the company to withdraw the merger proposal
- the trust deed of the transferring scheme
- and of the receiving scheme, needs to be reviewed to ensure there are no restrictions to transfers out/transfers-in respectively
- the trustees of the receiving scheme will be accepting responsibility for all liabilities of the transferring scheme
- including legal claims, debts and expenses
- so it is normal to seek warranties in these areas
- and indemnities if appropriate
- the PSO will need to give approval for the merger to proceed
- and will check that the merger is for bona-fide reasons and not a tax dodge
- since the transferring scheme is not contracted-out, there are no contracting-out issues for accrued service
- although the members in Scheme B will need to contract out for future service (unless a special contracted-in section of the scheme is established)
- consider the impact on member nominated trustee arrangements
- it will also be helpful to consider the position of trade unions and employee representation committees (if any).

(iii)

- the funding scenario can be considered in two distinct parts, short term (i.e. immediate discontinuance), and long term (i.e. indefinite horizons)
- two areas where the approaches contrast are
  (a) discontinuance — no salary linking
  (b) discontinuance — assessed adopting market conditions
- the GN27 assessment gives a measure of discontinuance solvency
- considering only the salary linking point, discontinuance solvency is likely to be better than long term solvency
- the impact of the other assumptions will depend upon the relative position of the market at the calculation date
- considering the larger scheme, and assuming market and long term conditions are the same, the ongoing solvency of the scheme is likely to be less than 100%
- this would suggest that the contribution rate of 16% includes an element for past service
- the larger scheme funds on the attained age method — this is appropriate for a scheme which is closed to new entrants
- since, in this situation, it produces a contribution rate which is designed to be stable in the long term
- as a result of taking into account all future service for active members after the valuation date

- the smaller scheme funds on the projected unit method. This may be appropriate for the scheme depending upon the company's future intentions as to membership
- if new entrants are expected to preserve the age profile, it will produce a stable contribution rate
- but if new entrants are not expected, the contribution rate will increase as the scheme matures
- no information is given on the determination of the additional contribution for the past service deficit, but it is reasonable to assume that the deficit is being paid off over a short period, say 5 years
- no information is provided on the current PA95 "schedule of contribution" rate, but
  - (a) for Scheme A, there is a possibility this will bite since there are significant past service benefits
  - (b) for Scheme B, it is likely that the standard valuation contribution rate (i.e. under the projected unit method) will exceed the PA95 rate, unless the members have a lot of past service

    since the PA95 rate only considers benefits including salary revaluation up to the calculation date

- once the merger has been completed the funding position under GN27 will look like this:

	£m
Assets	365.0
Liabilities	368.1
Surplus	(3.1)
Solvency	99.2%

- therefore, the immediate impact of the merger is to cause Scheme A to be in deficit under GN27
- unless there are other compensating factors, this will make it very difficult for the trustees of Scheme A to agree to the merger
- such compensating factors could include benefit improvements
- but note that if such improvements relate to past service, the solvency position is weakened further
- an alternative compensating factor would be for the company to make a cash payment to bring the solvency position of the merged scheme up to the level of 102% i.e. £10.5m
- but this is likely to remove the primary objective of the merger from the company's viewpoint
- note that the ultimate funding position does not require any remedial action
- since it is accepted that there is a 2% margin for error in the calculations
- so that the underlying funding position may be better than 100%
- nevertheless there is very little scope for any future adverse experience

- the primary objective of the merger from the company's perspective is likely to be to avoid having to take immediate remedial action in relation to the smaller scheme
- this remedial action amounts to bringing the funding position up to 90% in one year
- i.e. making a payment of £7.5m
- and up to 100% over 5 years
- although in practice other devices, such as letters of credit, may be acceptable alternatives
- the merger is unlikely to have a big impact on the ongoing contribution rates for the schemes
- since the anticipated cost of the benefits will remain the same
- unless benefit improvements are actually awarded
- it should also be possible to lower the payment in respect of the past service deficit in relation to the smaller scheme (i.e. effectively spread it over a longer period)
- since there will be a larger salary base available

(iv)

- the company needs to consider what its objectives are for benefits
- harmonisation can be achieved either
  - for all service
  - future service only
- if benefits are to be harmonised, the following areas require amendment (there may be others not stated in the question)
  - normal retirement ages differ
  - (it may be possible to deal with this if Scheme A offers early retirement at age 60 without consent)
  - for most members, the accrual rate under Scheme B is more generous than under Scheme A
  - for most members, Scheme B offers a higher final pensionable salary
  - spouses pensions under Scheme B are more generous
  - pension increases under Scheme B are more generous
  - (although Scheme A may award generous discretionary pension increases)
- it may be possible for the actuary to determine the value of the accrued benefits under Scheme B, and re-express this in the form of Scheme A benefits
- this would have to be done on an individual basis
- and use realistic funding assumptions
- it would also require the consent of the transferring members
- since accrued rights in some situations would reduce
- and the actuary would not be able to sign the GN16 certificate
- an area which is particularly difficult is the pension increase assumption
- if the conversion is conducted on the basis that increases are awarded, this may turn out to be unfair on Scheme B members
- and vice versa if the conversion is conducted on the basis that increases are not awarded

- in theory, it would be possible to limit the total value of the liabilities to the total value of the assets, and conduct the conversion on the reduced values
- which would eliminate the funding problem immediately
- but would be unlikely to receive the consent of the transferring members
- a final alternative would be to award the better benefit under both Schemes to both sets of members, and recognise service in full
- in this case that would mean offering Scheme A members accrued benefits under the Scheme B scale
- which would clearly be very expensive
- and prejudice the funding position of the combined scheme
- in any event, it will not be possible to harmonise benefits fully
- since Scheme A will award GMP's for service prior to April 1997
- overall it may well not be advisable to harmonise past benefits
- considering now only future service benefits, it would be possible for the company to adopt the Scheme A benefit formula without the consent of the members
- this would reduce costs
- although contracts of employment would need to be checked
- since there could be grounds for constructive dismissal if the Scheme B benefit scale is specified in the contract
- and in any case the affected employees would not welcome the changes (although they could be compensated by some other means)
- the nature of scheme B indicates it is for more senior staff — so reduction may not be appropriate
- however, the small number affected in scheme B would make the change less difficult
- a further possibility would be to devise an entirely new benefit design for future service
- such as the formula that applies to members of other schemes run by the company (if any, though note that Scheme A is closed to new entrants)
- or a money purchase benefit could be provided
- and the actuary would need to advise on appropriate contribution rates
- bearing in mind the final salary benefits foregone by the members
- and financial constraints applied by the company
- if the concept of money purchase is attractive it may be possible to convert the accrued rights of Scheme B members into a money purchase fund
- the rate of employee contribution to the merged fund will also need to be addressed
- if Scheme B members are asked to contribute, this will almost certainly bring demands for a compensatory pay increase
- which in turn will further weaken the funding position of the scheme
- unless such an increase is deemed to be non-pensionable
- if the rate for Scheme A members is reduced, this will increase the ongoing company contribution rate
- unless this is already reflected in the future service benefit design

(v)

- the current investment policy is for Scheme A is likely to be broadly: *(although credit was given if the candidate assumed there was a gilt matching policy)*
  - assets representing active/deferred pensioner liability more than 10 years from normal retirement age —
    100% UK equities
    (and more specifically FT-Actuaries All-Share Index)
  - assets representing active/deferred pensioner liability less than 10 years from normal retirement age —
    100% UK equities at 10 years
    moving to 100% UK gilts at normal retirement age
    (and specifically a 15 year stock with 8% pa coupon)
  - assets representing pensioner liability —
    100% UK gilts,
    unless pensioner liability exceeds £100m in which case —
    part UK equities and part UK gilts or more precisely
    100% UK gilts for payments made within 12 years of the effective date (or such longer time as is required for the corresponding liability to equal £100m)
    and 100% UK equities for payments with a longer term
- note that the theoretically matched investment strategy is changing continuously and in practice it will not be possible to match precisely
- although asset-liability models can give an indication of general trends
- note also that other factors, such as salary increases, will impact on the funding position of the scheme
- and it is arguable that, in an economic scenario in which salaries are expected to grow strongly, a higher percentage of assets in UK equities will actually match the funding position better
- such scenario analyses can also be conducted using an asset-liability model
- the resultant investment strategy will broadly match the liabilities of the scheme in winding-up
- but may not be appropriate for the scheme if it has a long-term horizon
- in practice, the scheme will also hold some cash, in order to meet expected cash outflows
- finally, the MFR is currently being reviewed and adopting a strategy of fully matching the MFR may not be appropriate if it is changed
- considering now Scheme B, equities are expected to give the best long term return to investors
- but capital values can fluctuate widely in the short term
- in the case of venture capital (private equity) funds, the above applies to an even greater extent
- with a significant risk to the capital invested
- and the success (or otherwise) of these funds is heavily dependent on the prevailing economic environment
- in the extreme, should there be a worldwide economic downturn, significant losses could occur

- which may greatly prejudice the security of members' accrued rights (particularly if the company is severely affected by the recession)
- the MFR funding position will be protected, except in the following areas
  - the extent to which the portfolio differs from the FT-Actuaries All-Share Index
  - i.e. the whole of the venture capital portfolio is mismatched
  - the extent to which active members are within 10 years of retirement
- the extent to which overseas equities are represented in the portfolio

- if, as is likely, the merger is completed by transferring the portfolio's under Scheme B to Scheme A, the assets of the combined scheme will not match the liabilities
- the investment strategy for the combined scheme will be the responsibility of the trustees of Scheme A who are unlikely to change their currant approach of matching the MFR
- in order to achieve this, the venture capital portfolio, any overseas equities and any mismatched UK equities will need to be sold and reinvested appropriately
- which will cost money, and maybe sufficient to reduce the combined MFR funding position to below 98%
- in particular, the venture capital portfolio may be very expensive to sell
- since liquidity and marketability are very poor generally
- and require a purchaser to come forward (or for the institution to buy back the stock), in which case they will be able to negotiate the price
- the Statement of Investment Principles for Scheme A will need to be considered
- and amended if any of the Scheme B portfolios are to be retained
- in particular, areas such as default risk will require consideration, if the venture capital portfolio cannot be sold
  - and, on the basis that they are unlikely to be discontinued, the AVC arrangements for Scheme B will need to be incorporated

(vi)

- high pay awards for members of Scheme B will be absorbed by the higher salary/asset base of the merged scheme
- the company may be able to utilise the merged scheme to finance early retirement arrangements for Scheme B
- easier to move people between schemes
- other advantages mainly relate to cost savings,
- and administrative convenience
- examples of the former include
  - economies of scale in placing the life cover risk
  - higher free cover limits for members of Scheme B
  - possibility of self insuring
  - one set of professional fees
  - lower marginal investment management fees
- examples of administrative convenience include
  - need to administer one benefit design going forward

- one set of trustees required
- employees likely to prefer a single set of benefits for all staff

Comment

(i) *This part was answered well.*

(ii) *Most candidates did not realise that the assets and liabilities could be transferred out of one of the schemes prior to wind up thus reducing/eliminating any statutory debt on the employer. Although the option of seeking members' consent was recognised, there was no recognition of the need to ensure members were given sufficient information to make an informed decision. A number thought that the trustees of scheme A would not be concerned at the MFR position deteriorating if scheme B members transferred in as long as it remained around 100%.*

(iii) *Many did not comment on/recognise the fact that an ongoing valuation would probably show a poorer funding position than the MFR valuation. Some mentioned that the attained method funds for a surplus, not a very helpful comment in this scenario, but others presented it as a suitably cautious method to use for a closed scheme. Few students recognised that the merger may mean that the company will not have to make a special payment to improve the MFR position (of scheme B) nor that the past service deficit could be spread over a longer period resulting in a reduced past service contribution.*

(iv) *Most students summarised the differences in benefit structure but some said that scheme B had an accrual rate of 30ths. Few commented that expressing scheme B's accrued benefits in terms of scheme A's benefit structure could result in the actuary being unable to sign a GN16 certificate. The contracted out position was not discussed in the context of harmonising accrued benefits. Some mentioned compensating scheme B members with a salary increase if benefits were reduced but few of these said anything about the possible impact on the funding position. A few considered the money purchase option.*

(v) *Many candidates did not explain fully why the assets of scheme A would be largely UK gilts or the mismatch on a ongoing basis. Otherwise, this straightforward part was well answered.*

(vi) *Few candidates came up with more than one or two points.*