Faculty of Actuaries **Institute of Actuaries**

EXAMINATIONS

September 2000

Subject 404 — UK Fellowship Pensions

Paper Two

EXAMINERS' REPORT

Comments

On the whole the paper was reasonably answered by well prepared candidates. The fact that both questions were split into several parts meant those candidates who tackled each part in a systematic fashion tended to score well.

Parts (iii) and (iv) of question 2 caused the most difficulty as they required a fair degree of application of knowledge.

In the model solution for part (iii) there are many points that could be made concerning GN16, the examiners were careful to ensure that undue weight was not given to this aspect of the solution.

1 (i)

- If the defined benefit route is chosen then the benefit is likely to accrue with length of service.
- A typical pension formula could be: $\frac{n\text{ths}}{80} \times$ Final Pensionable Salary (where n is service in the scheme).
- This would be dependent on earnings at or near retirement.
- An alternative would be to accrue pension with reference to salary in each year of accrual — a career average scheme.
- With the defined benefit route, the benefit is guaranteed at outset.
- The alternative is the defined contribution route. In this case the contributions to the scheme are known at the outset
- and the benefit is the pension and cash that can be purchased from the resultant accumulation of contributions with investment return.
- Under both scenarios the retirement benefits can take the form of Tax Free Cash subject to Inland Revenue limits and a pension benefit.
- For the defined benefit scheme, the cash may be in addition to the pension or may be at the cost of surrendering some accrued pension.
- In the defined contribution scheme, the cash is likely to come straight from the fund before the purchase of an annuity to provide the pension.
- As well as the basic retirement benefits, some form of protection benefit is also likely to be offered by both types of scheme.
- These benefits could be; Spouse's pension payable on death of the member before retirement.
- This could be based on the accrued pension in the defined benefit scheme, or a pension allowing for prospective service to retirement.
- Usually a percentage of the member's pension would be paid — say 50%.
- Spouse's pension payable on death of the member after retirement.
- Again likely to be a fraction of the member's pension at date of death.
- In the defined contribution scheme scenario, the option to select an annuity tailored to the individual's requirement could be offered.
- A lump sum benefit on death before retirement.

- Possibly a multiple of salary could be offered.
- To smooth the transition of this benefit into retirement a 5 year guarantee on the pension could be given.
- Childrens' or dependants' pensions on death of the member before or after retirement could be paid.
- The pension benefits for the member, spouse, children and dependants could also arise in line with inflation.
- Post 6 April 1997, the benefits would have to increase by at least inflation up to a maximum of 5% per annum.
- The retirement benefits from the company scheme could either be in addition to or instead of some of the State Pension provision.
- In particular the pension formula or pensionable pay definition could be reduced to allow for the Basic State pension.
- Alternatively, integration with SERPS could be achieved by a particular pension formula.
- Or more commonly by contracting-out.
- A Normal Retirement Date would determine when the pension benefits can be taken from.
- Or at least can be taken unreduced (in a defined benefit scheme).
- Eligibility conditions would determine who is entitled to the retirement provision.
- This could be in terms of age (maximum and minimum) or service (minimum).

(ii)

- The needs of the Company should be taken into account:
- **Cost** — Details of which are already available.
- In particular, the phasing-in of the retirement provision may make defined contribution the more suitable option.
- With an existing workforce the contribution to a new defined benefit scheme would be likely to be flat.
- In the longer term defined benefit may also be suitable since both pay and benefit costs are expected to rise in line with price inflation.

- A higher contribution rate to a defined contribution scheme of a higher accrual rate would be more costly.

- Employee contributions would help offset costs to the company.

- This is certainly likely since 6% p.a. if a fairly low contribution.

- **Good Benefits for Employees**

- To attract and retain staff.

- This will be relative to competitors in the same industry in particular.

- **Degree of Paternalism**

- How much to company wishes to provide for the employees, look after them and take on the risks.

- The company could alternatively provide the vehicle to encourage employees to provide for themselves.

- I.e. by making the scheme contributory.

- Or matching contributions if defined contribution.

- **Efficiency** — In terms of maximising tax benefits.

- This would ensure the scheme was able to receive Inland Revenue tax breaks by following design limitations.

- Also efficiency by ensuring that the employees value the provision being made available.

- **Avoiding Conflict with Senior Staff Employees**

- The company will have to ensure that the benefits for the employees are not more generous than the senior Staff benefits.

- This could also work the other way as well, as non pension members could try and compare their benefits with the Senior Staff Retirement benefits.

- It may be more efficient to set up a new section in the Senior Staff plan.

- With perhaps slightly different benefits.

- However, the new plan is likely to be much larger

- and the existing Trust Deed and Rules may not permit such alterations.

- **Needs of the Employees** — should be considered.
- What form of retirement benefits would they need and when are they likely to be able to take them?
- What form of protection to the employees need in the event of death?
- Specific retirement benefits could be targeted at the outset.
- The plan will also need to comply with legislation.
- In particular the 1995 Pensions Act.
- This includes areas such as a minimum level of pension increases, disclosure regulations, member nominated trustees, solvency tests.
- **Legislative issues** – need to be considered
- MFR, presentation, reference test (for contracted-out schemes) and general over-riding legislation may result in unexpected additional costs.

(iii) The Defined Benefit Approach:

\+ This would perhaps be more familiar to the company and employees given the existing scheme.

However this would make comparisons easy, which could be good or bad.

– The costs would be less controllable as they would depend on investment, mortality and expense experience.

In particular the cost issue may not tie in with the phasing in of the retirement provision.

\+ The employees may have a better idea of the benefit they would get at retirement.

The provision may be more appreciated from this perspective.

However the actual cost paid by the company would be more transparent in a defined contribution scheme.

\+ Death before retirement provisions would be covered easier through a defined benefit arrangement.

\+ Unions (who may well represent the employees affected) prefer defined benefit schemes historically.

\+ The defined benefit structure can also be used in conjunction with employment policy.

In terms of early retirement in particular.

+ Administration and the cost of advisers tends to be more expensive to the further legislation attaching to defined benefit schemes.

Defined Contribution

+ The Government appears to be promoting the defined contribution approach.

  In particular through its new stakeholder proposals. Given the low contributions, a stakeholder approach could be an option.

+ The costs are much more controllable and defined at outset.

  This is important as new accounting proposals could increase volatility in the defined benefit contribution reporting.

+ The member is unlikely to have a feel for the level of the resultant pension benefit.

+ DC members are expected to investment risk

+ Also exposed to change in past retirement mortality risk

+ and annuity risk.

(iv)

- The potential membership is large and hence a large amount of funds could eventually be available for investment.
- This should provide a whole range of investment options and keep overall investment costs down.
- The Pensions Act 1995 would require a Statement of Investment Principles detailing the investment objectives and guidelines.
- Self Investment would also be limited.
- Since the scheme is new, contribution income should exceed benefit outgo by a substantial margin initially.
- If the scheme is defined benefit then this could suggest a high degree of equity investment initially (minimum risk and maximum return).
- Liquidity would not be an issue at the outset.
- Since the workforce is already in place, the term of the liabilities may not be as long as if the company was also new.

- This may restrict investment freedom to some degree.
- Diversification in terms of asset classes and companies will be important to minimise risk. (But note equity investment note above.)
- If the Scheme goes down the Defined Contributions route then the investment strategy will be different.
- The objective will then be to maximise each individual's investment.
- The company will have to decide how much investment choice to give the scheme members.
- For staff employees this choice is likely to be limited.
- A lifestyling approach is likely.
- Where liabilities and assets are matched i.e. equity investment for the young, to maximise investment return.
- Switching to cash to match tax free cash and gilts or bonds as retirement nears to match annuities.

(v) **Potential Impact for the Senior Staff Scheme**

- Future improvements to the senior staff scheme may be limited if funds are being used for the new scheme.
- If the defined contribution approach is adopted and liked, this may determine future closure of the existing senior staff scheme with defined contribution going forward.
- This is particularly the case since the new scheme could be potentially much larger.
- If the new staff scheme is DB then possibly more investment freedom as immature.
- Economies of scale means reduced per capita administration costs.
- Extolling the virtues of the DB senior staff scheme may be difficult where a relatively poor DC scheme exists.

2 (i) *With-profit deferred annuities*

- Two approaches:(a) the reversionary bonus approach provides cash or annuity at low guaranteed rate of interest with constant premium rate with investment profit emerging over time as bonuses are declared, and …

… (b) the chargeable rate approach where contributions are invested at a higher guaranteed return but with premium rates varying more frequently, again with investment profit emerging over time as bonuses

- In a DB scheme, contributions are allocated to purchase pension rights of most senior members first

- Usually these contracts are regarded as funding for cash. There will often be guaranteed annuity rates at retirement specified in the contract but at rates which make the cash option more attractive.

- The option may have proved attractive following the global fall in interest rate

Deposit administration

- A with-profits arrangement where interest is paid on cash and bonuses accumulated to date

- Capital and accrued bonuses are guaranteed

- A bonus is paid on top of this - either a reversionary or a chargeable rate approach (as for with profit deferred annuities)

- The reversionary approach will tend to invest in more risky investments whereas the chargeable rate approach will tend to invest in bonds

- Potentially high surrender penalties which reduce value of the "guarantees"

Pooled vehicles and managed funds

- These are unitised funds where all investment performance and risk is passed on to the policyholder

- Can choose between a variety of active and passive funds invested in different asset classes including managed funds where all investment decisions, including general strategic asset allocation, are taken by the insurance company investment manager

- Income is usually reinvested

- Expenses deducted via an annual management charge

- Usually a bid/offer spread

- Other types of charge (less frequent) include a percentage charge on new contributions and a flat annual management fee

- On withdrawal schemes can be required to spread their withdrawal or sometimes charged withdrawal penalties

Non-profit immediate and deferred annuities

- Insurance company takes on liability for payment of all benefits
- Premium rates based on gilt yields
- UK non-profit immediate annuity market viewed as very competitive
- UK non-profit deferred annuity market viewed as less competitive

(ii) Insured v self-administered ("+" is an advantage of the insured arrangement, "–" is a disadvantage)

+ Bundled administration, documentation and actuarial services may be attractive to smaller schemes

+ Non-profit immediate and deferred annuities increase element of matching, especially for mortality (which can't be matched by any other investment)

+ Exempt from some requirements (e.g. producing a statement of investment principles)

– Opaque charging structure

– Often penal terms on transfer

– Less likely to give in specie transfer

– Difficult to assess value, especially a problem under the MFR

– Usually less flexible benefit structures catered for

(iii) Points to consider in advising the company on the merger.

- Whether consent should be required from members of the transferring scheme. For pensioners and deferred pensioners this is likely to be impractical.
- If the consent is requested from the actives then consider what to do if it can't be obtained. Likely to have to buy-out benefits.
- If transferring without consent then the scheme actuary has to give a GN16 certificate.
- A requirement to give a GN16 certificate is likely to determine direction of the transfer (i.e. from more poorly funded to better funded unless benefit improvements are granted to make the transfer more favourable in the opposite direction).
- This is because the actuary giving the GN16 certificate should only do so if he is satisfied that the benefits of the transferring members in the event of a winding up of the receiving scheme immediately following the transfer would not be materially less than those payable in the

event of the winding up of the transferring scheme immediately before the transfer. In this case it means transferring assets and liabilities from Scheme A to Scheme B.

- GN16 requires the actuary of the transferring scheme to be satisfied that for each member transferred without his/her consent

  (a) the value of the transfer credits in the receiving scheme is not less than the value of the member's past service rights in the transferring scheme.

  (b) the value of any discretionary benefits or increases in benefits in the receiving scheme is not less than the value of any discretionary benefits or increases in benefits in the transferring scheme (taking into account any benefit improvements made on transfer).

  (c) no beneficiary or contingent beneficiary is to be given materially inferior benefits in the receiving scheme.

  (d) the benefits in the event of a winding up of the receiving scheme immediately following the transfer would not be materially less than those payable in the event of the winding up of the transferring scheme immediately before the transfer.

- In giving a GN16 certificate, the actuary needs to take into account the financial strengths of the transferring and receiving schemes but only to the extent that the financial strengths affect the rights and any discretionary benefits or increases in benefits of the transferring members.

- Restrictions and requirements in both schemes' trust deeds and rules should be checked. These include checking scheme amendment powers, bulk transfer powers and winding up powers and priorities especially the allocation of any surplus.

- Legal advice will need to be taken regardless.

- Care will need to be taken to avoid triggering winding up before the transfer takes place.

- Company contributions may need to be reviewed following the merger, especially if the two schemes have been funded on different bases.

- Attention needs to be given to any discretionary benefits which are given dependent on scheme funding especially in Scheme B as the diminution of scheme funding may decrease the likelihood of future such increases.

- In order to persuade the trustees of Scheme B to accept a diminution of their members' security, some benefit improvements may be required. This may have implications for employee relations if similar improvements are not given to members of Scheme A.

- Communications with members will be required both as required by law and for company-employee relations purposes.

- Consideration will need to be given to the investment policy of the combined scheme because the pool of assets will be larger and in connection with any special treatment required for or penalties relating to discontinuance of the insured assets under Scheme A.

- A review of the member-nominated trustee requirements of the receiving scheme is likely to be triggered by the merger.

- Consider conflicts of interest if the same actuary is advising any two or more of the company and the trustees of the two schemes.

(iv) Points to consider on discontinuance

- Check rights in trust deed and rules on discontinuance (eg members with less than 2 years' service may have a right to deferred pensions)

- Consider priorities given in the schemes' trust deeds and rules as overridden by the Pensions Act.

- Crucial are the powers to amend the scheme (sometimes this is difficult after winding up has commenced) and distribution of surplus - does it require consent of the receiver?

- Options to secure benefits:

  (a) Run scheme on

  - no large scale disinvestment may reduce costs

  - but no guarantee that benefits will be met

  - good experience may result in surplus funds which can be used to provide discretionary benefits

  - the risk falls on those members who remain as deferreds for longest (or until the scheme finally winds up)

  - the scheme liabilities will ultimately need to be secured when membership numbers decrease or the memberships becomes very old

  (b) For members with deferred pensions, pay transfer values to personal pensions or other occupational schemes of which they are now active members. Need to be careful regarding equity and the transfer value basis.

  (c) Purchase deferred annuities for deferred pensioners and immediate annuities for pensioners. Deferred annuities are frequently regarded as "expensive". There can be problems with securing liabilities if e.g. the scheme is very large, there are peculiar benefits especially index-linked benefits with caps and collars. Note that LPI has a collar of nil.

- If there is still a 10% surplus in Scheme B then consider how to handle this. It may be that a benefit improvement can be given straight away by the trustees or the trustees may need to continue the scheme to grant discretionary benefits (e.g. pension increases).

- If Scheme A is still in deficit on the MFR then there is a potential debt on the employer. However, because the company is insolvent it is likely that this debt will not be recovered in full. The trustees will need to trigger the calculation of the debt by the Scheme Actuary and instigate actions to retrieve any part of the debt they can when the company is wound up.

- Need to review investment policy. Any changes should be recorded in the scheme's statement of investment principles if the scheme is continued temporarily.

  (a) For Scheme A need to deal with the insurance policy. Pensioners already secured by insurance policies. If the scheme was already invested in non-profit deferred annuities then may already secured a significant element of the benefits. If not then may be able to get favourable terms from the insurer for purchasing deferred annuities. Need to be careful of penalties on discontinuance.

  (b) For Scheme B need to consider a matched investment policy, i.e. switching to gilts. This will help match the insurance company buy-out basis as well.

- An independent trustee is likely to be required by law. MNT arrangements may need to be reviewed.

- Consider trustee indemnity insurance