EXAMINATIONS

September 2001

Subject 402 — UK Fellowship Life Insurance

Paper Two

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.

K Forman
Chairman of the Board of Examiners
20 November 2001

1 (i) The question does not state how much of the business written by the direct sales division is with profits. However, it is likely to be less than 5% because protection policies are likely to form a large part of the non-linked new business.

Writing new business causes initial strain, due to an excess of solvency capital requirement and expenses over premium received.

In a mutual the financing of new business strain effectively comes from the with profits policyholders' assets or from the inherited estate. The inherited estate has been used up in compensation payments, so the financing must come from the with profits policyholders.

The company's new business has included very little with profits business for a number of years. This mean that with profits asset shares will significantly exceed statutory liabilities, because there will be few policies in their early years where asset shares are less than statutory liabilities. It is this difference that is being used to finance the new business.

The rate of return being achieved on the most recent year's finance is 5%. This is exactly the same as the return that could be earned on a gilt at the end of 1999.

However gilts are risk-free, writing new business is not. The with profits policyholders must expect a return from their investment reflecting the risks borne, or they might as well invest in a gilt.

This suggests that continuing to write new business is not tenable unless:

Expenses can be cut. This is likely to mean sales costs.

Products can be re-priced to reflect the level of expense. This is likely to make business more difficult to sell.

Average production per salesperson and per sales company can be increased to achieve economies of scale.

Before the compensation payments started to erode the inherited estate, it could be argued that the financing of new business did not come from the current generation of with profit policyholders. A lower rate of return might have been more acceptable for a period, if there was a plan to increase the profitability of the direct sales force over a relatively short period.

The Appointed Actuary has a duty to notify the Board if he believes that new business is not being written on a profitable basis, and if there are threats to the ongoing financial condition of the company.

There may also have been pressure from other sources such as independent intermediaries or the regulator.

The salesforce may have been inefficient to run, for example lacking productivity due to demotivation.

This question was generally very poorly answered, and not all of the information in the question was well used. Few candidates picked up on the low value of new business, and the importance of the with-profit business as a provider of finance in a mutual was also rarely mentioned.

(ii) The closure of the direct sales force will have a number of effects:

Redundancy and other costs will be incurred
Provision will have to be made in the accounts for costs that cannot be shed immediately, e.g. leases on sales company premises.
Some overhead expenses that were previously allocated to new business costs and which cannot be shed, will have to be re-allocated to renewal and claims costs.

The statutory valuation will have allowed for the expenses of closure to new business and hence theoretically there should be no effect on the statutory returns.

However, there will still need to be a provision in the valuation for the costs of terminating the rest of the new business.

The financial position will alter if the closure provision in the valuation is different to the actual costs incurred.

Thereafter, assuming that the outstanding expenses of closure are settled within the accounting provisions held for them, the position in the statutory returns will improve rapidly.

Policies in the nil allocation period will be paying premiums and no liabilities will be building up. Furthermore the premiums will not be spent on financing a further generation of new policies.

With a nil allocation period, the financing of new business is repaid in the quickest possible way.

The underlying value of the without profits and unit-linked business is best measured by the embedded value: the present value of the surpluses expected to emerge on realistic assumptions from the existing business.

There will be differences between actual and expected experience attributable to the decision to close the direct sales force such as increased lapse rates.

Apart from these the embedded value will not be affected by the closure decision.

All that will happen is that the embedded value of the existing business will emerge as cash. The shape of the profit profile determines the rate of emergence.

Worse than expected experience will reduce the embedded value of the business.
Going forwards, the added value from new business will be much reduced. However, the rate of return of 5% pa suggests that this business would be loss making on an embedded value basis, so the initial impact would be beneficial.

If the small amount of new business from independent intermediaries and written directly can be maintained, this can help mitigate the effects of deaths and maturities (which are outside the company's control) on the number of policies in force.

The tax position of the life insurance company may change.

Most successful candidates made the main points, in particular that the statutory position would improve considerably going forwards. However, many candidates wasted time discussed longer term effects beyond the specified three year period.

(iii) The aim is to make the published free asset ratio as high as possible. There are a number of actions that the company can take to do this:

Weaken the valuation basis as much as possible. As the free reserves have been gradually eroded it is likely that this will have already been done.

Eliminate inadmissible assets

Apply for a Section 68 order to bring 50% of future profits in to the result as an implicit item.

Alter the investment allocation towards fixed interest to permit a higher valuation rate and weaker valuation basis to be used.

Improve the matching of liabilities with assets.

Reinsurance could be used to reduce the solvency margin and gear up the free asset ratio.

Seek some sort of reinsurance financing deal to take credit for part of the embedded value in the Form 9 result.

Part of the embedded value could be securitised to improve the statutory result, or subordinated debt could be issued.

It is important to avoid double-counting of future profits via the use of fin re, securitisation and/or an implicit item.

The business could be restructured to gear up the free asset ratio, for example by setting up a subsidiary for the unit-linked business.

Whether or not these actions should be taken depends on the effect they will have on the with profits policyholders. The need to improve the published position artificially is only temporary, because of the rapid emergence of the embedded value discussed in part (ii).

Hence the first three items listed should be done. They are essentially "no-cost" items.

Changing the investment strategy directly affects the returns available for with profits bonuses. Moving towards fixed interest is likely to worsen the returns over the long term. In addition IFAs also compare the equity content of with profits funds.

The decision that has to be made is whether the benefits from extra business that might be attracted by a better published result outweigh the lower investment return.

Similarly reinsurance or other financial instruments are designed to give away profit to the provider of capital in exchange for improving the published result.

Because the poor published position is likely to recover quickly, it is unlikely that any of the last three actions can be justified.

However, if there were a risk of the required minimum margin being uncovered at the end of 2000, a short term reinsurance financing deal, with a right of recapture might be considered.

Most candidates supplied a reasonable list of suggestions but there was limited exploration of which might be "desirable". Very few candidates noted that the issue is only temporary, and there was little differentiation between actions with a real cost and impact on policyholders, and those which simply "window-dress".

Note: Candidates who interpreted the question as asking for potential actions after the publication of the results were given appropriate credit for their suggestions.

(iv) The company will hope to rebuild its new business level or seek some other market in due course, probably after its financial position has recovered.

However, given the level of free assets, it would still be important to monitor new business strain.

Similarly it is important to analyse actual v. expected costs of pensions mis-selling compensation.

However, the single most important feature of the business to monitor will be the renewal and claim expense ratios.

The renewal expense ratio will be under pressure from two directions

The numerator, as expenses increase with inflation. Additionally it may be necessary to give above inflationary salary increases to certain staff to retain them when the company may be contracting.

The denominator, as the number of policies in force reduces.

It will also be important to monitor the lapse experience.

This has an effect on the denominator of the expense ratio.

In particular, soon after the closure of the direct sales force, salesmen may attempt to persuade clients to transfer business to their new host company.

A detailed analysis down to individual salesperson could highlight potential problem areas.

This may be easier to prevent if the sales force was "sold" to another company. Systems would have been put in place to protect against this.

This questions was generally well answered, although some candidates wasted time by listing every possible item of experience rather than concentrating on the "most important".

(v) There are a number of fundamental difficulties:

Until the compensation issue has been finalised there is potential for further erosion of the embedded value.
There is a wish to explore other avenues. Possible projects are likely to require financing.
There may be considerable uncertainties in the provisions set aside for outstanding costs of closure.

Thus the amount available for distribution is uncertain.

Considerable volumes of with profits business have not been written for a number of years. The maturity profile of the portfolio may be relatively short. This may not match the profile of the emergence of the embedded value.

The only equitable cut off date between those who share in the additional surplus and those who don't must be the date of closure of the sales force.

Despite the uncertainties over the amount, if any additional surplus is to be distributed, then some distribution should be made at the next bonus declaration.

Because of the uncertainties, the best form of distribution in the short term would be an enhancement to asset shares.

This might be done simply by increasing the investment return for the current year in the calculations. This will distribute the addition in proportion to policy size.

The distribution to policyholders will be by way of terminal bonus and thus will only be given to departing policyholders. If the estimates of the amount available are wrong future allocations can easily be adjusted.

In order not to generate too great a distortion between policies becoming claims in successive years, it would be possible to build up the extra allocation to asset shares over a three to five year period.

This would have the advantage of allowing time for some of the uncertainties to be resolved as well as being consistent with smoothing principles.

Once the amount available becomes more certain, a special reversionary bonus could be declared to provide the policyholders with a guarantee.

However, increased guaranteed benefits will require increased investment in fixed interest assets and may reduce the overall return available to the with profits policyholders.

An alternative approach to facilitate payment by terminal bonus would be to securitise or set up a financial reassurance arrangement in order to realise the full embedded value now.

This question was generally poorly answered. Many candidates produced an answer giving the standard pros and cons of the various types of bonus distribution, without relating it to this specific example. Very few candidates picked up on the importance of uncertainty generated by the compensation issue. The better candidates were those who appreciated the importance of ensuring that the rapidly departing with-profit policyholders received their fair share of the value of non-profit business.

2 (i) Company

Unitised with profits, UWP, business has a greater deferral of the distribution of surplus in the early years of the contract leading to lower new business strain.

(Unless there is a higher reversionary bonus level under UWP).

This should lead to lower guarantees, greater investment freedom, and higher potential returns.

It may be easier to reduce reversionary bonus levels than under conventional with profits, CWP, business as there tends to be less expectation of maintenance of bonus under UWP leading to higher free assets.

Could launch with a lower bonus rate than currently paid under CWP as a way of reducing bonus levels.
CWP has a guaranteed investment return built in to the premium rates but UWP appears to be acceptable with a guaranteed growth rate of 0%.

Can further reduce new business strain compared with CWP through initial charges ; this is less relevant for a bond.

The greater clarity and flexibility of UWP will make the contract more marketable.

Policyholder

The product has greater flexibility, for example permitting variable premiums and premium holidays.

The charging structure is clearer. For example, if expenses increase then any policy fee taken via a deduction of units can be increased. This is easier for a policyholder to understand than a reduction in bonus rates.

Can allow investments into a mix of unitised funds and allow switching between these.

Can include additional product features such as riders or regular income withdrawals.

The accumulation rate of units is more obviously connected to the investment return earned than reversionary bonus rates under CWP contracts, again leading to greater understanding.

A fairly standard list so generally well answered.

(ii) Smoothing of Experience Between Different Policies

With profits policies will smooth out fluctuations in experience between different contracts or groups of contracts — good experience under some contracts may counteract poor experience under other contracts.

The company will have to decided the extent to which experience will be shared over the CWP policies and the UWP Bond.

For example, should the assumed asset mix or expenses charged to asset shares be the same.

The extent of any such smoothing between CWP and the UWP Bond should be set out in any literature issued to policyholders.

Smoothing of Experience Over Time

Policyholders will have expectations that bonus rates will not change significantly from year to year.

Otherwise they may as well have taken out a unit-linked policy.

Policyholders may expect a similar degree of smoothing over time as under the current CWP policies.

In general, however, the asset shares under single premium contracts are much more volatile than those under regular premium contracts. This suggests that bonus rates are likely to be less smooth than under the regular premium contracts.

Furthermore the contract will be offered over a 1 month period. Thus, if the market happens to be depressed at a time when numerous contracts are surrendering (e.g. on a policy anniversary), the financial consequences of smoothing the return may be considerable.

It is likely that smoothing will introduce considerable cross-subsidies between the UWP Bond and the other with profits business.

This may not be consistent with the PRE of the existing CWP policyholders who may find the smoothing of their return affected.

This suggests that the smoothing over time should be less than for the existing CWP policies.

Any such difference would have to be clearly set out in the literature, which will have a significant influence on PRE going forwards..

Miscellaneous Factors Impacting on Smoothing

The higher the accumulation rate relative to the total investment return, the more the benefits will tend to be smoothed as there is less room to vary benefits using the terminal bonus scale.

The degree of smoothing will also reflect the asset mix.

A greater % of equities will lead to greater volatility of returns making smoothing of bonus rates less than would otherwise be the case.

If the company has significant free assets then it will be possible to apply greater smoothing as the company will be more able to absorb fluctuations in asset values from year to year.

Marketing pressures may make smoothing in a downwards direction difficult. This would, in turn, make smoothing in an upwards direction difficult if the intention is that smoothing is cost neutral over time.

However, PRE will be affected by the smoothing practice in the industry, and companies may be influenced by the smoothing philosophy of their competitors.

If, in practice, the company does smooth bonus rates in the first few years of the contract, then it may give rise to PRE that bonuses will be smoothed to the same extent as CWP even if this was not the original intention on launch.

The company may also consider the impact on shareholder profits. The smoother and more stable the stream of transfers, the higher the likely value.

Ideally, the company should decide on a smoothing policy subject to the free assets available, and then make sure that the surplus distribution methods, the asset mix, and the marketing literature fit in with this.

In practice, it needs to be able to depart from its preferred approach in unforeseen circumstances in order to ensure that its solvency is not threatened and to minimise reserving requirements.

Most candidates made the basic points relevant to smoothing philosophy, but few related their answers specifically to this example: ie the fact that the contract is new to the company (therefore for example marketing literature does not yet exist) and that it is a single premium bond.

(iii) A market value adjustment factor is a factor which is used to adjust the amount which would otherwise be paid under the policy.

The size of the adjustment is normally at the discretion of the company.

The main aim of a MVA is to prevent selection against the company and therefore ensure equity between surrendering and continuing policyholders.

Due to the smoothing of bonus rates under a UWP contract there will be times when the value payable under the policy will exceed the asset share.

Without the ability to apply a MVA at such times then the financial consequences to the company could be significant, if a significant number of policyholders were to surrender at that time.

The impact could be even greater if policyholders switch out of and in to UWP (to and from other linked funds) at times of low and high market values respectively.

Selection is a particular risk for a UWP bond as it is relatively easy to compare bonuses added against the returns on underlying markets for a single premium product.

The company will therefore reserve the right to apply a MVA on surrender or switch.

Since the aim is to prevent selection and not to avoid payouts exceeding asset share in all circumstances, the company will normally guarantee not to apply a MVA in circumstances where the policyholder cannot choose when they are taking the benefits.

For example, it may guarantee not to apply a MVA on death, regular withdrawals up to a certain level, or on certain pre-selected dates.

Reasonably well answered but without sufficient detail. For example most candidates mentioned anti-selection but didn't explain why and when this might occur.

(iv) In order to ensure that the application of a MVA is consistent with PRE, the company will want to set out clearly the circumstances in which it will apply an MVA and how it would determine the level of any such MVA in its marketing literature and With Profits Guide.

It will also want to set this out in policy documents to ensure that any such action complies with unfair contract terms legislation.

In deciding on whether to apply a MVA at a particular point in time the main consideration is a comparison of the value of the contract against asset share.
The company therefore needs to make sure that it can carry out this comparison on a regular basis for sample policies or maintain a shadow fund for each policy.

It may wish to reflect the level of surrenders at a point in time as well as a comparison of the value of payouts against asset shares.

It may be happy to pay more than asset share as long as the numbers surrendering do not have a significant financial impact on the fund.

If it wants to take into account the levels of surrenders it will need to ensure that it has processes in place which enable it to identify quickly any increase in such levels.

It also ought to make clear in its literature that it would take into account the number of surrenders.

MVAs are not popular in the marketplace so the company may consider whether any of its competitors are applying a MVA at a particular point in time.

If competitive pressures lead it not to apply a MVA when it would otherwise have applied one, the company needs to consider whether the application of a MVA in similar circumstances in future would be inconsistent with PRE. It is therefore important to ensure consistent future practice.

This may also have reserving implications, particularly in the resilience reserve calculation.

The company needs to decide whether it would be more appropriate to reduce terminal bonus before applying a MVA.

Reducing terminal bonus would also impact on payouts on death, regular withdrawals, and other times when the company guarantees not to apply a MVA so the company will need to decide whether it also wants to affect these payouts or whether it wants to have greater smoothing of these payouts.

Systems may require enhancement to enable MVAs to be applied and disapplied on an ad hoc basis.

Generally well answered but few candidates included discussion of the practical actions required, such as systems changes and surrender monitoring procedures.

(v) The accumulation rate of units on launch should not be viewed as an indicator of potential total returns on the UWP bond.

In fact, in theory, a higher accumulation rate will lead to higher guarantees and a higher % of fixed interest assets than would otherwise be the case, thus reducing the potential total return.

However, despite this, market practice may be such that it is difficult to compete without a high accumulation rate on launch.

The extent to which this is possible, without having a significant impact on asset mix and potential returns, depends on the level of free assets available.

An extra bonus in the first year may give the policyholder unrealistic expectations that the headline rate is maintainable throughout the duration of the policy.

An extra allocation rate would have the same affect but would be potentially less mis-leading.

Would need to stress strongly at the point of sale and in marketing literature if the bonus rate was expected to fall from that applicable at outset.

Even then, there is the potential for mis-selling.

A high headline rate may give the impression that the intention is to compete against deposit rates of interest

This is not appropriate as deposit rates of interest have a different risk profile. They are backed by fixed interest investments with a lower risk but a lower potential return.

It is not clear that the extra bonus rate in year 1 really improves the final returns.

For instance, if terminal bonus is set by comparing the bid value of units against asset share then policyholders won't get any real benefit from the extra bonus in year 1.

The extra bonus would only affect the timing of the surplus distribution, not the overall level.

This is unlikely to be consistent with policyholder reasonable expectations as they are likely to expect that their final returns will be improved by an extra bonus in year 1.

If the company wanted to ensure that policyholders do get a larger final benefit from the extra bonus then it would also need to credit asset shares with the extra bonus rate.

A guarantee of no MVA after 5 years is very onerous from a reserving point of view if there is a significant equity backing.

This will also act to increase new business strain.

It also might be difficult to apply a large MVA close to the no-MVA guarantee point further increasing reserving requirements.

A 5 year time period is unlikely to be sufficient for a significant terminal bonus cushion to build up to absorb potential fluctuations in market levels.

The company will also be very exposed to market levels at the 5 year point if a significant number of policyholders leave at that point.

This is particularly true if the unit accumulation rate is as high as is being suggested as there is little scope for a terminal bonus cushion to build up to absorb adverse fluctuations.

Since the policy will be sold over a 1 month period, the risk is concentrated even further and not spread over time.

It may be appropriate to purchase derivatives to cover this exposure.

If the level of guarantees is higher than on other with profits contracts then the UWP Bond policyholders ought to meet this extra cost via a deduction from asset shares.

This will reduce the potential returns available.

The company would need to state clearly in its literature the extent to which policyholders would meet the costs of this guarantee.

The company will need to consider whether policyholders will regard this extra cost as worthwhile for the no MVA guarantee.

A "no MVA" guarantee could result in large volumes of policyholders surrendering their policies after 5 years whereas the company would prefer the investments to be held for a longer period to allow the contract to generate some free assets.

If the company feels that a no MVA guarantee is required at one point, then the 10th anniversary may be more appropriate.

Most candidates made the main point or two for each suggestion but simply did not expand the arguments sufficiently or give enough detail for a 15 mark question.