

EXAMINATION

April 2005

Subject SA2 — Life Insurance Specialist Applications

EXAMINERS' REPORT

Introduction

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. 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.

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Chairman of the Board of Examiners**

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- 1** (i) The company should consider the extent to which there are similar types of fund that can readily be merged, for example two UK Equity funds.

If there are similar types of fund, then the company will also need to look at the objectives of these funds in order to see whether they are sufficiently aligned (e.g. Balanced company A v. Balanced company B). If this is not the case then merging the funds may be contrary to the expectations of policyholders. Policyholders must not be disadvantaged in any way by a merger of funds.

The company will need to consider the costs associated with merging the funds. This should be compared with the expected future cost savings as a result of economies of scale.

It is possible that the funds may not be altered without contacting policyholders. The company will need to examine relevant past literature and policy conditions to ascertain whether notification or agreement is necessary.

The decision may depend in part on IT systems. If they are similar it may make it quicker and easier to perform a merger of the funds.

The nature of agreements with any external fund managers should also be considered – these could contain clauses or penalties that make an immediate merger less attractive.

The sizes of the funds should be taken into account. Merging might be the preferred option if one fund is very small. Similarly, merging two funds to create one larger fund should help to increase the potential for diversification of investments. It might enable property funds to invest directly if they were not able to do so before.

It is possible that unit prices will continue to be required for different groups of policyholders as a result of different levels of annual fund charges on the products of the two companies. Hence there may be no overall reduction in the number of sets of unit prices that need to be produced.

There are also operational issues to consider. For example, there is a risk that the company will price funds incorrectly where there has been a change to the IT system. Longer term there may be a loss of knowledge regarding one set of funds if the operation becomes focused in one of the two former companies.

However, there would also be a reputational risk if funds were not merged and the future investment performance of two equivalent funds was vastly different.

Marketing issues should also be considered. For example, would maintaining two sets of similar funds lead to confusion? If the funds are not merged and several are closed to new business, then issues arise from managing these closed funds as they run off.

This part was answered reasonably well. However, many candidates included in their answer factors that were not directly relevant to the question and therefore would not score marks. The question states that the merger between companies has already been agreed, and is asking whether or not unit-linked funds within the companies' fund ranges should be merged with each other. Some candidates included factors that could be relevant to the decision as to whether or not to merge the companies, such as relative financial strength, but that are not relevant to the merger or otherwise of the individual unit-linked funds. Many candidates listed decisions which would need to be made before a merger might go ahead (e.g. which system should be used, which fund manager should be used, how big should the management box be?). However, these considerations alone would not cause the company to decide not to merge funds, and hence are not the "key factors" sought by the question. A number of candidates discussed differences in unit-linked product charging structures such as allocation rates and surrender penalties. However, these features are part of the underlying products rather than the unit-linked investment funds and hence are not relevant to this question.

- (ii) Whilst the unit price of each combined fund at the merger date will differ from that which would have applied to each of its constituent funds, the value of each policyholder's unit holding should not be affected by the merger. This would be achieved by amending the number of units allocated to affected policyholders.

Pricing Basis

The company would need to consider what basis to use to price each merged fund. In order to do this, the cash inflows and outflows of the funds being merged will need to be considered in total. If the combined cashflow is positive the new fund should be priced on an offer basis. If it is negative the fund should be priced on a bid basis.

This may cause a change in basis for one of the previous funds and therefore a discontinuity in the price of units. The company needs to consider how to communicate this to policyholders and any key distributors.

It should also consider whether any anticipated changes as a result of a basis change should be smoothed in over a period of days. This may depend on the size of the change relative to the normal volatility of unit prices in the fund.

Tax

The company should consider the tax assumptions used in the pricing of funds. Assumptions regarding the incidence of tax payments may need to be reviewed in the light of past investment returns which may differ by fund (for example one fund might include capital losses and the other gains).

In addition the likely rate of turnover of assets going forward will be an important consideration, as it will impact the assumption regarding discounting of the tax liability on unrealised capital gains/losses. The turnover

rate may or may not be similar to one of the previous funds, but will depend on how active investment managers are going forward.

Discretionary charges

If the two companies had different practices regarding discretionary charges, such as rounding rules, then a decision will have to be made as to how these will be set in the combined funds.

Timing

The company would also need to consider the time at which funds are priced. The two former companies might have priced funds at different times of day. In addition the two companies may have had different practices with regard to whether policyholders receive the next day's price or the previous day's price on surrender or switch. Policy literature would need to be reviewed in order to determine the freedom that the company has to change any of these timing practices.

It might also be necessary to update the valuation of some assets, e.g. property, if it has been decided that for the new funds this should occur more frequently than the latest valuation at the date of merger.

Systems and administration

The company would need to consider which of the two previous unit pricing systems to use. This decision may depend in part on the compatibility with systems that will be used by the managers of the underlying investments and all the underlying policy administration systems capturing unit movements.

Another factor in this decision may be the desired location of the combined operation. This might depend on the proximity to other relevant teams, for example the investment management team.

One or both of the companies might at present outsource its unit pricing calculations. The combined company will have to decide whether to continue to outsource or to use any existing in-house capabilities.

Most candidates mentioned the pricing basis and tax assumptions, but relatively few mentioned any practical considerations. Several candidates appeared to be answering the more general question "how does an insurance company calculate unit prices?" rather than the "key considerations ...at the merger date", and hence scored poorly. The better candidates demonstrated their understanding of those areas where discretion is applied within unit pricing, and hence where decisions have to be made as to the new approach to take within the combined company/funds.

(iii) *Fund managers*

The company would need to consider which investment managers should be appointed to manage the investments. It is likely that the former companies had different fund managers, either internal to the company or external fund managers.

A key consideration in the choice of fund manager is their past performance. Whilst this may not be a guarantee to the future performance it may be used as an indicator of the better likely performer. In addition the company will want to take advantage of the better performers' track record in their marketing literature.

Different investment managers are likely to have different styles and take different levels of risk in their investment choices. The company would need to consider which was more suited to its intended future marketing position. It is also important to take into account policyholders' reasonable expectations.

Investment vehicles

The company must decide whether the funds should be invested directly or via collective investment vehicles such as unit trusts.

It is possible that the separate companies were small and certain funds did not have critical mass to enable direct investment. This may change on the merger of the funds.

Another consideration would be the extent to which derivative use is permitted as an alternative to physical securities.

This will depend in part on the expertise the fund managers have in using such instruments. In addition there may be regulatory restrictions on derivative use.

Guidelines

For each unit-linked fund, the company would need to define the benchmark investment mix and the level of permitted deviation variation in asset mix around this benchmark.

The starting point would be to assess the extent of differences in the investment guidelines applicable to each fund prior to the merger, and take into account policyholders' pre-merger expectations.

A fund may be passively managed whereby the fund is managed to track as closely as possible the movements of the underlying benchmark. Alternatively it may be actively managed whereby the fund managers trade the underlying investments in an attempt to outperform the index.

If both funds were actively managed before being combined, then it is likely that this would continue in future, and similarly if both were index trackers.

The company should identify and resolve any concentrations of investment within the combined funds that breach the agreed guidelines (examples below).

The company should consider any differences in ethical or social policies.

Within the different types of fund, specific considerations would be as follows:

Equity funds

The company is likely to have a range of separate funds each covering a major stock market of region of the world. Common funds may include UK Equities, US Equities, European Equities, Japan equities, Pacific ex Japan equities and Emerging markets.

The company is likely to want its performance not to deviate too far from key competitors, at the appropriate level of risk. However, it is unlikely to know the detail of competitors' portfolios. The benchmark is therefore likely to be based on a recognised published index, where this is used as a proxy for competitor distributions. For example, for UK Equities, the benchmark may be the FTSE All Share index.

Variations permitted around the benchmark are likely to be controlled via constraints on the level of investment in a single company (i.e. stock diversification), an industry sector (i.e. sector diversification) or by country if the fund objectives cover equities from more than country (i.e. geographical diversification).

Fixed Interest funds

The benchmark is also likely to be based on a published index, for example an FT Actuaries Government Stock Index.

The desired term of the investments may also be specified. Variations permitted around the benchmark are likely to be controlled via constraints on the duration of investments and on their credit rating.

Property funds

Whilst there are less recognised published indices for property funds, it is likely that the company would want to base the investments around an index, such as the IPD indices.

Variations permitted around the benchmark are likely to be controlled in terms of the proportion of the fund invested in individual properties, in different

types of property (e.g. retail, commercial, warehouse), and by location (e.g. by different regions).

Balanced funds

The company would need to consider what the appropriate benchmark asset mix should be for the combined Balanced fund. The company would need to consider the balance between maximising returns, for example through equity investment, with reducing volatility, for example through fixed interest investment.

Investment constraints are likely to be imposed on the deviation in holdings of each asset class away from the specified benchmark.

The two Balanced funds prior to merger might have had similar asset mix benchmarks and guidelines, which would facilitate the merger process. However, if this was not the case then the company must consider policyholders' reasonable expectations.

Another key consideration would be the typical investment mix of competitors. The company might benchmark itself using published industry fund classifications.

The fund is likely to be comprised of internal investment in the other unit-linked funds. As such the benchmarks and risk controls in different asset classes are likely to be in line with those of these underlying funds.

Practical considerations

Additional considerations for the company would include:

- How the performance of the fund managers will be monitored and reported in future.
- Communication of any changes to the policyholders.
- Reassessment of management box policy and liquidity levels in each fund.
- If changes are to be made to the existing portfolios, then the time period over which this should occur.

The candidates who scored most highly in this question part tended to be those who structured their answer well, particularly by splitting the discussion of guidelines into the four fund types listed in the question. Several candidates did not address the second half of the question ("including...") at all. Some candidates again introduced points into the discussion that did not directly answer the question. These included the investment of assets backing sterling reserves (which are not part of unit-linked funds), product design considerations, and unnecessary discussions of "matching liabilities as they fall due" as if describing non-linked products.

- 2 (i) (a) These regulations give powers to some regulators (e.g. the FSA) and consumer bodies to challenge companies that use unfair terms in their standardised consumer contracts.

The regulations do not offer redress to individual consumers. If the policyholder wishes to raise a complaint under these regulations, then he would have to do so via another body, such as the Financial Ombudsman Service. However, the first step is for Company A to address the issues raised by the policyholder and see whether they can be resolved satisfactorily.

The general test of whether a term is unfair is based on whether it could give significant advantage to the company that could cause detriment to the consumers. It is not the case here that Company A obtains significant advantage from the terms of the with profits bonds that cause detriment to consumers. In fact the terms aim to protect policyholders, as will be explained later in the response.

Examples of unfair terms might include:

- Allowing the company to change the terms of the contract without consultation.
- Charging a disproportionately large sum if the contract is cancelled.
- Allowing the company to change the characteristic of its service without consultation.
- Giving the company the absolute right to interpret any term of the contract as it sees fit.
- Being misleading about the terms of the contract.

None of these examples is relevant in this case.

This question is straightforward bookwork applied to a specific situation, and was done well by those candidates who had clearly learned the course well. A few candidates made the assumption that the policyholder was correct and that the contract was “unfair”. If that were the case then it is highly unlikely that the company would only be realising this as a result of this policyholder’s letter. If the company’s compliance department had failed in their duties then it could be assumed that the FSA would have intervened by now, given that this product has been on sale for several years and the regulations apply to the nature of the standardised contract terms. However, some credit was given if candidates simply mentioned that the company should double check its literature for potentially misleading terms. One or two candidates made the assumption that the summarised

description of the policy given in the question is the only information that the policyholder would have seen, which is unlikely to have been the case!

(b) *Surrender penalty*

The market value adjustment (MVA) is an adjustment made to the surrender value at the discretion of the insurance company in accordance with the contract terms.

It differs from a fixed surrender penalty that would automatically be applied to the value of a bond in accordance with terms specified at outset, irrespective of market conditions.

Communication

All marketing and product literature contains full explanation of the MVA, including the circumstances in which it will be applied. It is also described in the company's with profits guides and PPFM documents.

An MVA will not be applied to a death claim, and can only be applied if the bond is surrendered at other than the tenth anniversary, such as in this case.

Purpose of an MVA

It will normally be applied in the event of poor returns on the assets in which the bond is invested, such as the recent fall in equity markets.

Company A aims to return to each with profits policyholder a fair share of the profits earned by their contract. In order to provide some protection from significant fluctuations in the investment markets, the amount of surpluses allocated are subject to smoothing.

The 10% market value adjustment reflects part, but not all, of the recent equity market fall; some smoothing is likely to have been applied.

Equity to other policyholders

The market value adjustment is applied in order to ensure fair and equitable treatment of *all* policyholders of Company A, including those who choose not to surrender at this time.

If a market value adjustment was not applied, then the cost of paying a benefit in excess of the actual earned surpluses would have to be met by any spare assets (the "estate") in the with profits fund.

Reducing the estate reduces the security of the fund for the remaining policyholders. These policyholders would also have to bear the cost directly once the estate became exhausted.

Selection

If a market value adjustment is not applied in the event of a fall in equity markets, then it is possible that policyholders could take advantage of this position by surrendering their bond and then benefit from reinvesting the proceeds in a unit-linked product whilst equity prices are relatively low. This potential for selection against Company A increases the risk to the estate and to the remaining policyholders.

Whilst this particular policyholder is not necessarily selecting against the company, it would not be appropriate to attempt to apply the adjustment only to some policies and not to others; it would be very difficult to determine (and prove) whether or not selection is involved in individual cases.

Other considerations

Company A might also point out the extent to which it has applied a market value adjustment in the past, and the extent to which other insurance companies are currently applying similar market value adjustments.

Conclusion

Given these explanations, Company A does not consider it appropriate to remove the MVA from this surrender payment.

This question was reasonably well answered, although relatively few candidates linked the 10% MVA to the actual investment conditions in order to help convince the policyholder that it is a "fair" amount. Some candidates appeared to be confused about the nature of smoothing, which in practice can apply to both the unitised fund and the asset share. Some seemed to think that using an MVA automatically removes all smoothing, and others that an MVA is applied in order to achieve smoothing – neither of which is accurate.

(c) *Impact of market movements*

The proportion of assets invested in equities has reduced from 70% five years ago to 50% at present, measured in terms of market value. Almost half of the change is simply due to the recent 30% fall in equity market values, which has reduced the value of the equity portfolio significantly whilst fixed interest values have remained relatively unchanged. Poor equity performance in previous years will also have contributed.

The remainder of the change is the result of a management decision to move up to around 10% of the with profits investment portfolio from equities into fixed interest.

Solvency protection

The key driver for this change is likely to have been the preservation of the financial soundness of the fund. The continued weak performance of equity markets puts increased pressure on the solvency of Company A. It has therefore been necessary to move into lower risk (and higher yield) assets.

Protection of the ongoing solvency of the company is a key consideration in ensuring that the expectations of policyholders are met regarding payment of their benefits.

Other points

Company A retains discretion to change the asset mix of the with profits fund, within certain limits. This discretion is clearly referred to in the marketing literature and with profits guide / PPFM.

The company should emphasise that the equity proportion remains within a reasonable range, and comparable with other companies' with profits funds (since these companies have experienced the same economic environment).

Conclusion

Company A does not therefore believe that it has acted improperly.

Many candidates discussed management actions to protect solvency, several described the impact on asset mix of the market movements, but very few suggested both. Of those who realised that the passive market movements were a contributor to the change, many incorrectly calculated this to be the sole component by calculating the equity proportion after the recent fall to be $70\% \times (1-0.3) = 49\%$, without taking into account the dilution from fixed interest. [Calculation should be approx $\{70 \times (1-0.3)\} / \{70 \times (1-0.3) + 30\} = 62\%$]

(ii)

(Note that the explanation of the calculation approach is included here for information. Candidates did not have to explain their methodology in order to achieve full marks.)

The holder of a put option has the option to sell his underlying assets (S), whose price will be volatile, for a fixed price (X) at the exercise date. He will thus exercise the option when X exceeds the value that his underlying assets have achieved at the exercise date. This effectively gives the underlying assets a minimum value of X at the exercise date.

This has the same characteristics as the ten year guarantee on this bond product. The company holds a portfolio of underlying assets in respect of each policyholder, the value of which will be volatile in future: the asset share. However, each policy has a minimum benefit amount at the ten year anniversary date, since the company cannot apply an MVA and must therefore pay the higher of the asset share and the value of the guaranteed benefits at that date. This guaranteed value is thus equivalent to a strike price.

The expected cost of the guarantee for a single policy can thus be estimated as the cost of a ten year put option on the initial asset share (S) with an exercise price of the expected guaranteed benefit after ten years (X).

The guaranteed benefit after ten years is the expected value of the unit fund at that time. In this example this is the value of initial allocated units (i.e. 95% of the premium) increased by ten years' expected annual bonus of 4% p.a..

$$\text{Hence } X = 20,000 \times 0.95 \times 1.04^{10} = 28,125.$$

S is the amount of "volatile assets" purchased at the start of the policy, i.e. the initial asset share. This is calculated as premium less expense charges, which in this example are equivalent to 7.5% of premium.

$$\text{Hence } S = 20,000 \times 0.925 = 18,500.$$

The ten year period to the guarantee date is equivalent to the time to option exercise date, i.e. $T = 10$.

Other information in the question gives $\sigma = 16.58\%$ and $r = 5\%$.

$$\begin{aligned} d_1 &= \{ \ln(S / X) + (r + \sigma^2 / 2).T \} / (\sigma \cdot \sqrt{T}) \\ &= \{ \ln(18,500 / 28,125) + 10 \times (0.05 + 0.1658^2 / 2) \} \\ &\quad / \{ 0.1658 \times 10^{0.5} \} \\ &= 0.4169 \end{aligned}$$

$$\begin{aligned} d_2 &= d_1 - \sigma \cdot \sqrt{T} \\ &= 0.4169 - 0.1658 \times 10^{0.5} = -0.1075 \end{aligned}$$

$$N[-d_1] = N[-0.4169] = 1 - N[0.4169] = 0.3384$$

$$N[-d_2] = N[0.1075] = 0.5428$$

$$\begin{aligned} \text{Cost of option} &= X \cdot e^{-rT} \cdot N[-d_2] - S \cdot N[-d_1] \\ &= 28,125 \times e^{-0.05 \times 10} \times 0.5428 - 18,500 \times 0.3384 \end{aligned}$$

= £2,999

The primary aim of this question part was to test candidates' understanding of the nature of guarantees inherent within with profits business, and their ability to understand the similarities between a with profits guarantee and a put option. A very basic understanding of the nature of a put option is required, to the level of assumed knowledge from earlier subjects. Although the Black-Scholes formula is also assumed knowledge (subject 109, now CT8), the Examiners did not wish the focus of this question part to be on the use of the formula rather than on the understanding of the guarantee. Hence the formula, and its components, are all defined explicitly within the question - meaning that the question could be completed successfully without requiring knowledge/recall of Black-Scholes.

Those candidates who scored best on this question were those who deduced that the strike price must be the guarantee at maturity and that the underlying asset is the asset share, and then went on to calculate these amounts (X and S) correctly. The majority of the marks available were gained from these important steps. Common errors included apparent lack of understanding of the difference between unit values and asset shares, confusion of allocation rates and asset share expenses, and not allowing for future bonus in the guaranteed benefits.

Several candidates made careless errors in the use of the formula, such as using (X/S) instead of (S/X) , or incorrect placing of brackets, or in their numerical calculations. In some of these cases candidates commented that their results appeared to be either too high or too low (particularly if negative), but relatively few appeared to have performed simple re-checks of their sums in order to highlight the error(s) and avoid the resultant loss of marks. Some credit was given to candidates who spotted their mistake but did not have time to rework the calculations in full.

(iii) *Impact of reduced volatility*

If, as suggested, the bond is 100% invested in the mixed fixed interest investment portfolio, then the volatility of the assets in the with profits fund reduces from 16.58% to 10%. The cost of the guarantee thus does decrease, since the volatility of the investments in which the asset share is invested is lower.

It can be noted that the guarantee is “out of the money”. If the invested assets earn the risk free rate for ten years, the asset share at that time will be around £30,500 ($= 18,500 \cdot \exp[0.5]$). This is higher than the expected guaranteed amount of £28,125.

The lower the volatility of investment returns around the expected returns, the lower the likelihood that the asset share will fall to below the guaranteed benefit amount at the tenth anniversary, and the lower the mean expected cost of that guarantee.

The estimated cost of the guarantee can be recalculated exactly as above but using a volatility parameter equal to 10%. This does result in a lower cost of guarantee, but it will certainly not be zero. *(Note: it actually reduces to £1,585 for this level of premium, i.e. around 8% of the initial investment, but candidates were not expected to perform the calculation again)*

The cost does not reduce to zero because the volatility of the fixed interest portfolio is still relatively high. This reflects the mixture of fixed interest stocks within that portfolio. In particular, the stocks will have a variety of maturity dates, and reinvestment and/or early redemption is required.

Matching

If fixed interest stocks could be purchased with zero coupons and with maturity dates on the tenth anniversaries of the with profits bonds, then the volatility of investment return is removed. If volatility is zero, the calculated cost of the option is also zero. Hence this theoretical fixed interest portfolio is the only way in which the manager's aim could be met.

Zero coupon ten year "risk free" fixed interest stocks could be held with maturity value equal to the expected guaranteed benefits, and the excess asset share (around £1,400 for this premium) could be invested in any other asset.

However, this solution is not perfectly achievable in practice, as a range of such stocks for all potential with profits bond anniversary dates is not available.

Policyholders' expectations

Also, it is important to consider the impact on the with profits bond policyholders. Investment in 100% fixed interest investments is unlikely to be in accordance with their reasonable expectations, as established by marketing literature, PPFM etc.

It is likely that the company will only be able to implement this for a new series of policyholders in a segregated fund. However, even new policyholders are likely to have expectations of some exposure to real returns when purchasing a with profits policy.

Although it reduces the cost of the guarantee, fixed interest investment also reduces the potential upside of investment returns from a more diversified portfolio investing also in equities.

The requirements of policyholders that have passed the ten year anniversary date should be considered separately.

Alternative strategies

If the manager's comments are indicative of genuine concern within Company A about the cost of the guarantee, then alternative ways to reduce or manage it might be considered.

The guarantee could be removed completely or the guarantee period could be extended. Alternatively it could be reduced to a return of premium guarantee. or the cost could be reduced by declaring a lower annual bonus in future.

The cost of the guarantee is currently met by the free estate. An alternative option might be to leave the investment strategy unchanged, but to make an explicit charge to asset shares to cover the expected cost. However, it is likely that it would only be possible to introduce this for new policyholders, as it would not be in line with the reasonable expectations of existing bondholders. Company A should also bear in mind that reducing the asset share via charges for guarantees will further increase the cost of the guarantee.

Other considerations

Any comparison with competitor products should also be taken into account. Charging for the guarantee and/or moving into 100% fixed interest would reduce the marketability of the product.

Changes would need to be explained clearly to policyholders in sales literature and the PPFM. Policyholders should then be able to assess the value of the guarantee against the price that they will pay for it.

The cost calculated in part (ii) assumes that all policyholders take the guarantee at the ten year anniversary, which in practice will not be the case (e.g. deaths and surrenders in the first ten years).

The proposed asset switch would incur dealing expenses and could have tax disadvantages.

Most candidates mentioned that the change would reduce the cost but not eliminate it, and that it would not be in accordance with policyholders' expectations. However, on the whole there was little discussion outside these issues. The better answers discussed alternative approaches, but very few candidates explained why the manager's proposal was flawed even if it could have been implemented (i.e. why the fixed interest portfolio does not perfectly match the guarantee).

Some candidates were side-tracked by discussion of corporate bond credit risk, although "the fixed interest portfolio" described in the question contains only government bonds. Some candidates proposed purchasing derivatives as an alternative, without acknowledging that the expected cost to the company would be unchanged.

(iv) **Existing with profits policyholders of Companies A and B**

Policyholders' reasonable expectations

The key consideration for existing with profits policyholders of the two companies will be ensuring that the position post merger is in line with their reasonable expectations formed prior to the merger (or alternatively that they are “treated fairly”). Company AB must ensure that it treats each generation and group of policyholder equitably. Policyholder expectations will be both for the eventual benefit amounts and the security of those benefits.

The policyholders might reasonably expect the following elements of management discretion to continue unchanged for their policies:

- Bonus philosophy, e.g. relative split between annual and terminal bonus
- Smoothing philosophy
- Non-guaranteed surrender values (e.g. percentage of asset share paid out on surrender)
- Application of market value adjustments

It is possible that the above philosophies will differ between Company A and Company B. There are two options for Company AB. Either the philosophy could be brought into line for the two pools of existing policyholders going forwards, or bonus series and philosophies could be kept separate until the existing business has run off.

The extent to which Company AB wishes to simplify practices, and hence reduce expenses, would indicate a preference for convergence. However, this is more likely to cause problems regarding policyholder expectations.

The optimal solution will depend on the extent to which Company A and Company B practices currently differ. If the difference is limited, then convergence is easier to achieve. It might though be appropriate to keep Company A and Company B policy groups separate for annual bonus setting purposes if the supportable rates differ materially.

Asset share and payout calculations

The basic methodology for calculation of asset share might also differ between the two companies. For example, charges might or might not be made towards the cost of capital and/or surrender profits/losses might or might not be credited directly to asset share.

If one of the companies has been distributing its free estate by augmenting asset shares, then Company AB must decide how to manage this in future. In particular, it must ensure that the free estate of the other company is not eroded by this practice and that all policyholders are treated equitably in this respect.

The extent to which any of these aforementioned philosophies or calculations might be changed depend not only on past practice, but also on how much flexibility has been communicated within marketing and policy literature, and in the company's with profits guides and PPFM.

Profits from without profits business

Company B with profits policyholders currently share 100% in the profits (and losses) arising from without profits business written in that fund. Company A does not write without profits business. It is probable that Company B with profits policyholders will expect to continue to receive all of the profits arising from that business. Equally, existing Company A with profits policyholders will not expect to take on the risks underlying the without profits business.

If Company AB wishes to make asset share calculations the same for the two sets of policyholders, then it might be necessary to give a one-off compensation to one group of policyholders. For example an uplift to ex-Company B asset shares equivalent to the distribution of the present value of future profits on the existing without profits business.

The calculation of the appropriate level of uplifts would have to ensure equity across different groups and generations of ex-Company B policyholders.

Company AB would also have to decide how to distribute profits/losses arising from *future* new without profits business. The extent to which it can do so to ex Company A policyholders will depend upon the flexibility of the wording within literature such as the PPFM. Company A might have anticipated opening to without profits business in future and allowed for this possibility, but care should be taken. In particular, distributing some of the profits on new without profits business to ex Company A policyholders might go against the reasonable expectations of ex Company B policyholders. An asset share uplift might be given to these latter policyholders as compensation, similar to that described above in respect of in-force without profits business.

Guarantees

If the guarantee on the Company A with profits bonds bite, then Company AB should endeavour to ensure that ex Company B with profits policyholders are not disadvantaged, since they will not have expected to have to support a guarantee of this type when they took out their policies.

Similarly, if charges are to be introduced to cover the cost of these guarantees then it could be argued that, since Company B does not write this type of policy, the charges should be made only to the asset shares of ex Company A with profits bond policyholders. This would be more equitable, as only those policyholders who have the potential to benefit from the guarantee will be charged for it. It may only be possible to charge new rather than existing policyholders, depending on PRE.

Company AB should also consider the other existing guarantees within the with profits business. For example, the maturity guarantees might be significantly more onerous in one company than the other. The costs should be shared equitably. The same considerations should apply to any potential litigation costs arising within one of the companies.

Expenses and tax

It has been indicated that expenses will be lower for both companies following the merger. This could be passed on to with profits policyholders via lower asset share expense deductions in future, and hence provide higher payouts. Company AB will have to decide how to share the synergy benefits equitably.

Alternatively the benefits could accrue to the estate and expense deductions continue unchanged. However, as the synergies would be expected to continue, this would create problems regarding the eventual equitable distribution of accrued estate.

The costs of implementing the merger must also be allowed for equitably.

Policyholders will expect service standards to be maintained.

Following the merger of the long term insurance funds of the two companies, the tax position might change. This impact will need to be shared appropriately.

Asset mix

All with profits policyholders will want the investment mix underlying their contract to remain in line with their reasonable expectations, as formed by past practice and published information (e.g. PPFM).

If the mix of assets backing with profits business in Company B differs materially from 50% equity and 50% fixed interest, then the mix in the combined fund might not be in accordance with the expectations of both Company A and Company B policyholders.

If this is the case, then Company AB should consider notional ring-fencing of investments in order to perform asset share calculations. This introduces additional complexity to the monitoring and management of this business.

Financial strength

Similarly, the relative solvency of the two pre merger funds might be materially different, measured both in terms of regulatory solvency and the amount of "free estate".

If Company A is financially weaker than Company B, then (depending on relative fund sizes) the combined solvency position might enable Company

AB to increase the equity proportion for ex Company A policies. This would only be feasible if the situation for ex Company B policyholders continues to meet their reasonable expectations.

Alternatively, the companies might decide to make a one off distribution of part of the estate of the stronger company immediately prior to the merger. This could be done via asset share uplift. This would only be sensible if the combined position remains sufficiently strong to continue an acceptable investment and bonus strategy.

It could also be noted that the merger of the two companies could result in Company AB becoming large enough to be subject to the “twin peaks” regulatory requirements, whilst Companies A and B separately might have been too small.

Future increments

All with profits policyholders will expect terms for increments to remain unchanged.

Existing without profits policyholders of Company B

If there are any areas of discretion, such as reviewable premium rates, then the without profits policyholders of Company B would expect principles to remain unchanged in Company AB.

The other area of concern is ongoing solvency. The policyholders would not expect the security of their benefits to be compromised following the merger.

New with profits policyholders

If Company AB continues to apply different asset share calculation methodologies or bonus philosophies, or ring-fences the two existing funds for asset allocation purposes, then it will have to decide which of the alternatives will apply to the new with profits policyholders. For example, Company AB will have to decide whether new with profits business will share in profits arising from without profits business, and if so then is this profits arising from in-force and new, or just new business?

The principles applicable to new Company AB with profits policyholders will have to be clearly communicated in order to establish appropriate expectations, for example in the new PPFM.

This question part is looking for a discussion of how Company AB should manage its combined with profits fund, with the emphasis being on the implication for the various types of policyholder. Some candidates appeared to be answering the more general question “what do you have to think about when you are merging two companies?”, and hence wasted time listing the process required to get the merger of two

companies approved or discussing considerations such as distribution strategies. Candidates who repeated the same list of generic points as in Q1(i) should have suspected that this was not quite what was required.

The question is looking for recognition of the need for the new management to consider how the company should deal with all of the differences between Co A and Co B with profits business going forwards. Those who scored best in this part tended to be those who considered the specific features of the companies, particularly the distribution of profits on without profits business, the treatment of with profits bond guarantee costs and the known investment mix of Co A.

Well-structured answers with coherent explanations also tended to score more highly than lists of unrelated points.

A few candidates seemed to believe that combining the two funds would automatically increase financial strength for both. Whilst increasing the absolute level of free assets or free estate, this will need to support a larger portfolio of with profits business. The merger of the funds will most likely result in increased solvency cover for one fund (ignoring potential cost impacts) but decreased for the other.

END