

May 2014

Subject F202 — Life Insurance

Specialist Applications

MARKING SCHEDULE

QUESTION 1

- (i) **Define the orphan estate and discuss the factors that should be considered when deciding on a fair split of the orphan estate between the different stakeholders.**

This question was relatively poorly answered. Most candidates struggled to give an accurate definition of the orphan estate. Many candidates did not discuss the arguments for augmenting the 90:10 split w.r.t the orphan estate. Very few candidates also picked up the issues surrounding the different generations of policyholders.

The Orphan Estate can be defined as the excess of the market value of assets over the aggregate asset shares of all in-force policies.

The market value of assets needs to exclude shareholder assets. For non-profit business, the statutory liabilities can be used as a proxy for their asset shares.

(Alternatively, it can be defined as the free surplus + required capital, less shareholder assets. The total liabilities include the BSR on in-force business, where the BSR is roughly the asset share less the policyholder discounted cash-flow liabilities.)

Where the asset shares are lower than the statutory liabilities, the company can set up a negative BSR. The negative BSR needs to be restricted to the level where it is reasonably certain that the deficit can be recouped over a reasonable period of time, normally no more than three years.

Factors to consider in deciding on a fair split:

The starting point for the allocation of the Orphan Estate between with-profit policyholders and shareholders is to allocate 90% to policyholders and 10% to shareholders. Any deviation from this has to be justified and motivated to the regulator and policyholders.

Arguments in favour of an increase in the shareholders' share are:

- Even with a higher portion allocated to shareholders, the company is still financially strong after the allocation of the Orphan Estate and there is no deterioration in the security of policyholders.
- The ultimate responsibility to meet policyholder obligations still lies with the shareholders. The shareholders can argue that they should be compensated for the provision of this guarantee to past generations of policyholders.
- Increase the shareholders' share if there is still an un-allocated portion of the Orphan Estate after all other factors (obligations and expectations) related to past, current and future policyholders have been met.
- Strategic changes to the company, e.g. shareholders accepting responsibility for meeting all the capital requirements of the company instead of only a portion.

Part of the investigation would be to assess who the rightful owners of the Orphan Estate are in order to allocate the Orphan Estate equitably between the different policyholder funds and classes of business. Financial statements, historical market and policyholder data would be required to analyse the origin of past profits. This information may not necessarily still be available.

To ensure an equitable distribution of profits between different classes and portfolios of with-profit business, analyse the unallocated profits of the past by source, type of business, with-profit portfolios and non-profit business.

For a fair allocation of non-profit business surpluses and other sources of profits to the different classes and portfolios of business, refer to the company's Principles and Practices of Financial Management. (If a PPFM is not required in this country, refer to other documentation of the company to ascertain how the with-profit business were managed in the past.)

With the allocation and distribution of the Orphan Estate, future management of the with-profit business and distribution of bonuses might change, hence the PPFM and other documents might have to be updated.

With the lack of data from past generations of policyholders, analyse the contribution to profits from existing business to give an indication of the origin of past profits. Take consideration of changes in conditions, e.g. the mix of business, economic environment, operational and demographic experience.

Consider the implications of compensating past generations of policyholders where there was an under-declaration of surplus. It may not be practical to distribute profits to past generations of policyholders due to a lack of historical policyholder data, availability of policyholders and the risk of fraud from invalid claims where details of past policyholders does not exist.

For existing policyholders, consider whether the current liabilities make appropriate provision for future obligations and expectations.

Ensure that the reasonable benefit expectations are met by referring to any policy documents and other policyholder communication, including expectations created by media articles relating to the distribution of the Orphan Estate.

The asset shares might not be an appropriate representation of the policyholders' liabilities if any of the accumulating with-profit funds or conventional with-profit portfolios are underfunded.

This might be because of a negative BSR (as mentioned earlier), setting up of a guarantee reserve, allowing for policyholder reasonable benefit expectations in the liabilities, or mispricing of certain products (increasing the reserves). The circumstances that lead to the low funding positions need to be considered to decide whether these funds need to be topped up and to ensure it is done on a fair and equitable basis.

Consider the build-up of the Orphan Estate over time for a fair distribution of the Orphan Estate to the different generations of policyholders. The asset shares of the existing policyholders on a cohort basis, e.g. by duration and term, can be used to estimate how the different generations contributed to the Orphan Estate.

The distribution of the Orphan Estate might create an expectation from future generations of policyholders to share in this unallocated profit. They may benefit from a lower capital strain, more investment freedom and investing in a fund with a stronger funding position.

The fairness and reasonable expectations of future generations of policyholders need to be considered in deciding how much of the Orphan Estate to distribute to existing policyholders.

An increase in business volumes might also have further solvency, capital and business implications for the company.

Ensure that the proposed allocation, the process, governance and communication meet the fair treatment of policyholder (TCF) requirements.

(ii) Discuss the factors that should be taken in account in deciding on a method for allocating the additional funds and in developing a distribution policy.

This question was reasonably well answered. The candidates who performed better simply generated more points.

The allocation will reduce the free asset of the company as the BSR is now accounted for as part of the policyholders' liabilities. The solvency of the company will be impacted by this change.

The ability to cover the statutory capital requirements will depend on the remaining free assets and how the required capital changes after the allocation and the new distribution policy.

The bonus rates will consist of two components. One component is the bonus priced for in the premium rates and the other component the distribution of the additional funds. The proposed bonuses and distribution methodology need to be tested to see what a sustainable bonus rate in aggregate is on an ongoing basis.

The company's pooling (subsidies between different individuals or between different classes of policyholders) and smoothing (subsidies between different generations of policyholders) policies will influence the granularity of the allocation between different portfolios and classes of business. Smoothing and equity are often in conflict with each other.

Depending on the pooling policy, a further sub-allocation of the underlying with-profit portfolios and classes of business may be necessary. This further allocation needs to be equitable and fair across the different with-profit funds and classes of business as discussed in the previous question.

The smoothing policy will have an impact on the size of the vested and non-vested bonuses and/or BSR. A higher BSR or non-vested bonuses can be used to absorb losses in stressed scenarios.

This can be used as a management action to reduce the investment risk capital requirements. This will reduce the required capital. A higher vested bonus or reversionary bonus will result in higher guarantees and increased capital requirements.

The free assets, BSR and smoothing policy will also have an impact on the investment strategy of the company. Deferring the distribution of the surplus will make a more aggressive investment strategy possible. A deviation from the investment mandates needs to be clearly communicated to all policyholders.

With the declaration of bonuses to distribute the additional allocation to policyholders, there will also be a transfer to shareholders. This will result in a release of capital to shareholders. Shareholders will prefer to receive the transfers earlier to explore other opportunities.

What are the regulatory requirements and restrictions that need to be considered with the distribution of the unallocated funds? (For example, an independent review from an external actuary on the fairness of the distribution, approval from the regulator for the proposed distribution, justification of any changes to the solvency position and capital cover of the company.)

The distribution of the additional funds may create expectations of continued higher bonuses by existing policyholders. The distribution methods and policyholder communication should be used to manage these expectations.

The distribution policy should address whether everything will be distributed to current policyholders, or if there should be a longer term strategy where future policyholders will also benefit from the increased allocation. It is unlikely that previous generations will benefit from the distribution.

The company should consider the bonus levels offered by competitors and how they want to position themselves in the market. The company may want to attract new business by subsidising future bonus rates with part of the allocated surplus. Offering bonuses in excess of competitor rates will also create further expectations by policyholders.

A large influx of new business may also result in additional capital requirements that can put a strain on the solvency position and financial strength of the company.

Increasing bonuses to existing policyholders may create expectations of higher bonuses from future generations of policyholders. If the company does not intend to support the same level of bonus for new business, consider alternative options to manage new business, e.g. increasing premium rates for new business, a new bonus series or portfolio for new business etc.

Ensure all legal and regulatory requirements are met.

Different bonus series for different portfolios and generations of policyholders as well as the introduction of a new distribution strategy will create an additional strain on administrative and operational processes.

Refer to the current PPFM to develop a distribution policy for the additional allocated amount. The PPFM may have to be revised to address the impact of the additional allocation on the distribution policy.

The increased asset share (from the higher BSR) will have an impact on the surrender values and market value adjuster (MVA) formulae. Distributing the bonuses earlier will result in higher surrender values and consequently more policies that surrender. It is unlikely that MVAs will be required as the policy values will be less than the asset shares, unless the company does not want policies to benefit from the allocated surplus on early surrenders.

(iii) List the different methods that can be used to distribute the profits to the policyholders and describe their impact on the key factors discussed in Part (ii).

This question was surprisingly poorly answered. Most candidates managed to at least name most of the methods but did very poorly in generating the required numbers of points for the impact of using these methods. This part of the question was a simple application of bookwork knowledge and surprisingly few candidates did well.

The additional funds can be distributed in one of the following ways:

1. Through the current bonus structures of the company, i.e.

- a. Simple or uniform Reversionary bonuses on conventional business
 Declared or vested bonuses on smooth bonus business
- b. Compound or super compound reversionary bonuses on conventional business
- c. Terminal bonuses on conventional business
 Similar to non-vested bonuses on smooth bonus business

2. Once off special bonuses

3. Issue shares to all with-profit policyholders.

1. Increasing future reversionary bonuses (conventional business):

- This method will support an equitable distribution policy of bonuses across different generations of policyholders.
- An equitable distribution policy will result in a more complex bonus structure, with different cohorts of business (by term and duration) having different reversionary bonus rates.
- New business will most likely have a different bonus series or a new portfolio as they will not necessarily share in the distribution of the additional allocated funds.
- Higher reversionary bonuses will create an expectation that the level of bonus rates will continue in future years. The level of bonus will not be sustainable after the additional allocation has been distributed.
- Each declaration of the higher future reversionary bonus will result in an immediate increase in the guaranteed liability and result in higher capital requirements.
- Policyholder's behaviour might change with more surrenders as a result of the higher surrender rates after the declaration of the higher reversionary bonuses.

- There is a delay in the distribution of profits (compared to a once of special bonus) that will delay the transfers to shareholders. The delay is still shorter than terminal bonuses.
- A compound bonus structure will distribute more surplus towards the end of the policy term compared to a simple bonus structure.

2. Increasing vested bonuses (smooth bonus business)

- Immediate increase to the guaranteed liability will release capital earlier to shareholders.
- The higher vested bonuses will result in higher capital implications.
- The increase in the vested bonuses can create expectations that the bonus levels will continue in the future, but with the fluctuation nature of smoothed bonuses, the expectations will be lower than for reversionary bonus rates.
- It will be more of a challenge to achieve an equitable distribution, where bonuses are usually declared for the whole fund or portfolio.

3. Increase the terminal bonus (conventional business) or non-vested bonuses (smoothed bonus business):

- The terminal bonuses will be based on the asset share at maturity or termination. Compared to reversionary bonuses, it will be more challenging to achieve equity between different generations of policyholders. Equity can be achieved though through a fair allocation of the additional bonus to the asset shares of different cohorts of business.
- This method will delay the distribution of profits and the shareholders will get access to their capital at a much later stage.

- The bonuses will not vest and will not be guaranteed. The non vested bonus or BSR can be used to absorb losses and this will reduce the capital requirements.
- It will not have a significant impact on policyholders RBE

4. Distribute as a special once off reversionary bonus.

- The shareholders will get access to their share of the surplus sooner.
- The bonuses will vest and increase guarantees. This will increase the guaranteed liability and reduce the free assets or BSR and as a result the capital requirements will increase.
- Reasonable expectations is easier to manage as the policyholders should be made aware that this is a once off event.

5. Issue shares.

- This is similar to a special once off bonus where the distribution is immediate and there is no further expectations from the policyholders.
- There is no increase to the liabilities, but there is a reduction in the available assets or BSR.
- It might be an administrative challenge to issue the shares and get in touch with all the policyholders to notify them to claim the shares. Unclaimed shares will most likely revert back to shareholders.

(iv) How would the non-profit business be valued for the purpose of the buy out, and what are the implications of this strategy?

This question was well answered by candidates who grasped that an appraisal value was being looked for. Most candidates seemed to struggle with the transfer that would take place and the future cash-flows that would emerge as a result of this strategy.

The buy-out value will be 90% of the fair value of the non-profit business. Determine what the fair value of this business is by calculating the Embedded Value (“EV”) of the non-profit business. The EV is the Adjusted Net Worth plus the present value all future profits

attributable to the with-profit portfolio (i.e. excluding the shareholders' portion), less the cost of capital required for the non-profit business. The Adjusted Net worth will represent the Capital Requirements of the non-profit business.

Make some allowance for the value of expected future new business or goodwill.

The composition of the company's embedded value will change as the net asset value will reduce in exchange for a higher 'value of in force business' (net of the cost of required capital). The shareholders will therefore have less available capital to explore other opportunities.

The capital requirements of the non-profit business will now become the shareholders' responsibility, requiring a minimum available capital in the shareholders' funds to meet the capital requirements.

Instead of a future profit stream from non-profit business, there will now be an immediate transfer to the with-profit policyholder funds. The same questions and approach for a fair allocation and appropriate distribution of these profits should be considered.

The profit stream to shareholders will now be more certain as it will not be subject to the timing of future bonus declarations. The shareholder's earnings from non-profit business will be released earlier.

The shareholders need to ensure that there is sufficient available capital to meet the risk capital requirements and new business strain from future expected new business volumes. The board may want to revise the new business and investment strategy as a result of the new allocation of business.

Expect a change in future dividends as the reduced net asset value and the higher capital requirements will have an impact on the available equity to declare dividends, but this will be offset by higher potential future dividends.

The transaction will have legal and regulatory requirements that the company need to comply with. This may include a review from an independent actuary.

(v) Discuss the implications of this suggestion.

This question was poorly answered by most candidates. It appears that many struggled to think through enough or broader implications. Very few candidates made the points w.r.t the shareholders role and potential subsequent actions should the suggestion go through.

If they proceed with this suggestion, it is only the capital required to back the with-profit business that will become the shareholders' responsibility (after the buy-out of the non-profit business).

The funds that were used to back the capital requirements in the with-profit policyholders' funds will now be available to enhance bonuses (subject to the smoothing and distribution policy)

The shareholders can take a more active role in capital and risk management. There will however be an additional capital requirement from shareholders. If there is insufficient shareholders' capital to meet this requirement, additional capital will have to be raised.

Since the shareholders will now back 100% of capital instead of 10%(say), the cost of capital will increase, reducing the EV of the company

The shareholders will manage the capital requirements by:

- Monitoring expected new business growth: For most classes of business, high volumes of new business will result in additional capital requirements going forward.
- Reduce the capital requirements by keeping the guaranteed benefits or vested bonuses low.
- Revise the matching strategy and investment strategy of capital backing the required capital to reduce the capital requirements and the risk of having to make further capital injections by shareholders.

Any capital charges or allowance for capital in the premium rates should be for the benefit of the shareholders going forward.

The change in shareholders' capital and additional capital requirements will have implications on the affordability of future dividends.

QUESTION 2

- (i) **Discuss the possible reasons for the CEO proposing the switch to equities and the risks of this approach for policyholders and shareholders.**

This question was reasonably well answered. Candidates who did not perform well simply did not make enough points. Many candidates missed the marks for the impact on the cost of capital and the potential impact the change in CAR would have on policyholders (existing and new) and brokers.

CEO probably wants to maximise the return on EV.

Equity is the asset class with the highest expected long term return

$EV = NAV + VIF - \text{Cost of Capital Required}$

Because company is holding as little capital as possible, a significant proportion of the NAV will be the capital backing the required capital. The required capital may be a multiple of CAR.

If assets backing required capital are invested in equity, this will increase the expected return on these assets. This will reduce the gap between the return on the assets backing required capital and the risk discount rate. Reducing this gap means reducing the cost of required capital. Therefore, investing in equity increase expected return on EV.

The equity market may be low and the CEO expects a significant increase in market value of equities.

What are the risks this approach?

Market value of equities is volatile, switching to equity may increase the volatility of the value of the NAV (i.e. the assets backing CAR)

CAR may increase due to IOCAR scaling factor

$\text{CAR cover ratio} = \text{NAV (excluding inadmissible assets)}/\text{CAR}$

Therefore, the CAR cover ratio may be more volatile.

An unstable CAR cover ratio may be viewed as a risk for the security of policyholders.

This may result in an increase of lapses/surrenders from the in-force book as policyholders move elsewhere.

Potential new policyholders may rather do business with another insurer with a more stable CAR cover ratio.

Brokers/Agents may rather place business with another insurer with a more stable CAR cover ratio.

If the equity market “crash” the CAR cover ratio reduce to unacceptable low levels. The company may even become technically insolvent.

This will require additional capital injections from shareholders meet the minimum statutory capital requirements.

If existing shareholders are unwilling to inject capital, new shareholders might need to inject capital. This will dilute the existing shareholder’s holding.

(ii) Describe and estimate the expected impact of this proposal on the statutory solvency.

This question should have been answered a lot better. Many candidates missed the marks awarded for the impact on NAV. These were easy marks. The question also asked the candidates to estimate the impact on solvency. Many candidates appeared to ignore this and at best left their answer as a general “solvency will increase / decrease”.

First consider impact on NAV = Assets – Liabilities

Assets: No immediate change to the value of assets.

Assets: In the long term assets backing statutory capital will be less volatile because of the 100% cash holding.

Assets: Consider the admissibility of the assets after the change in asset composition. For example the asset spreading requirements such as maximum of 20% (of liabilities) invested with one bank.

Liabilities: The proposal has no impact on the immediate or long term value of liabilities.

Therefore, expect a more stable NAV in the long term due stable assets (cash).

Now consider the impact on the statutory capital requirement (CAR).

It is a mature company, therefore assume the CAR is based on OCAR (not TCAR as usually for a new start up)

$OCAR = IOCAR / (1 - k)$ where

$$k = [(g+h*0.5)^2 + 0.75*h^2] ^{0.5}$$

The g-factor takes into account the resilience risk of the assets backing OCAR and should be calculated using the percentages described in APN 104. This would be zero due to the 100% cash allocation. The resilience scenario has no impact on cash.

The h-factor takes into account the credit risk of the assets backing OCAR.

Since the cash will be invested with banks with a S&P credit rating of AA or higher, “h” will be 1% in the above formula. This translate into “k” =1% and the grossing-up factor of IOCAR being 99%. Therefore, it is basically 1.

Assume the grossing-up factor was 85% on the balanced portfolio. This then imply a reduction of the OCAR by say 15% due to the switch to 100% cash in the portfolio of assets backing the CAR.

The CAR cover ratio will then increase to 2.35 (= 2/85%)

QUESTION 3

(i) **Describe the features of risk products in South Africa**

This was a largely bookwork question. As such candidates either did well or poorly depending on whether they knew this material or not. On average candidates did well here though and scored good marks. Not many candidates picked up the marks awarded for guarantees and options.

Term

Policies are generally for WOL for life cover

Disability and CI cover usually has a term up to a specific age (some WOL versions available)

All covers are also available for set durations

Cover

There are various cover alternatives with regards to disability and critical illness (CI). The alternatives relate to the scope of the definitions and the degree of the payouts.

Disability and CI are available as standalone or accelerator benefits. An accelerator benefit is attached to a death benefit. In case of a claim on these benefits the sum assured of the death benefit is reduced.

While death cover is normally in the form of a Lump sum, other benefits can be paid out as a lump sum or an income.

There will be a maximum entry age on the products. Some will also have maximum cover ages (disability and CI)

Risk policies normally do not offer any surrender benefits

Premiums

Risk policies are normally recurring premium policies. The policyholder can choose whether the payment is monthly, annual or quarterly.

Policyholder can also chose a premium paying pattern which could be level or increasing.

Cover Amount

The policyholder can generally choose the level of cover, as long as it adheres to the benefit limits specified by the insurer (normally applicable to disability and CI).

Policyholder can elect that cover increases each year at a set percentage (compulsory) or choose to have the option to increase each year up to a maximum (voluntary increase)

Guarantees and options:

A future cover option gives the policyholder the option to purchase cover in future with no, or limited, proof of good health. The option can usually be exercised on the benefit anniversary or in the case of certain specified events.

Premium guarantees are also available at an extra cost. These tend to be more limited for disability and CI cover.

(ii) Describe the considerations that need to be taken into account in assessing whether to offer the standard lump sum risk products to HIV-positive individuals.

This question was also generally well answered with most candidates obtaining marks for the easier points. Many candidates missed the reputational risk issues as well as the external risks that the company would face that it would not have control over and would need to decide how to handle.

An insurer would usually consider the cost (development) and benefit (future sales and profit margins) of any new offering, however :

The insurer will need to consider the risk of not offering cover to HIV+ individuals. This could be seen as continuing unfair treatment of HIV+ individuals (whilst others are not) which will harm market reputation.

Insurer would need to consider its risk appetite with respect to this product offering. While HIV+ individuals are no longer a straight decline, not all HIV+ individuals will receive cover (still some uninsurable risks). Company would need to decide which risks are still uninsurable and that it is comfortable pricing and offering.

Insurer needs to consider another reputational risk as well. The insurer can't claim to offer cover to HIV+ individuals and then still decline the majority through a very risk-averse offering.

The insurer would need to consider which products it would want to offer.

- While there is a lot of research on mortality of people living with HIV there is far less (if any) on disability.
- CI would be risky due to interaction of HIV with other diseases. If AIDS is one of the diseases in the CI product then it would need to be decided whether it can be offered at all.

The insurer would need to consider the evidence (data / research) and possible support (reinsurers) it would have to have in order to develop and price the product.

The insurer would need to consider the impact on the company of offering this product in terms of

- Operations (sales, admin, claims, UW etc)
- Financial metrics (Profitability / EV)
- Solvency

Sales are likely to be small initially so these should not be significant.

The insurer would need to consider the external risk factors that the company may not be able to mitigate through product design or pricing.

- Some policyholders may be reliant on government provision of ART / medication.
Risk of disruption to stable supply.
- Pricing may assume ART compliance on behalf of policyholder
- Drug resistance may occur at later durations

The insurer would need to consider whether the usual sales channels are still appropriate for this product. There are unique issues w.r.t the nature of HIV and as such someone may not be comfortable disclosing their status to a broker / agent. Can the company sell direct?

The insurer would need to consider the skills required to underwrite these cases. As it has always been declined there is little experience in assessing these risks. This may require additional training.

(iii) Describe how the company would determine a pricing basis for life cover for HIV-positive lives (mortality risk only, not office premiums) as well as how it could attempt to mitigate the risks posed by offering this cover.

This question was poorly answered. Some candidates either seemed at a loss as to what would need to be considered while others went into a lot of detail w.r.t how exactly to set up a general pricing model and the data required. The question was looking for how one would go about setting up a basis for a new disease.

Many candidates either made too few points w.r.t risk mitigation or went for overly complex solutions while missing simple ones like restricting cover and not offering guarantees and options.

Pricing

Before you can set a basis the insurer will need to decide which risks are insurable, i.e. which risks they will price and which they will decline.

They will then need to assess the additional mortality risk that this group possesses

The insurer will need to consider the homogeneity of this group. If the extra risk is similar for all HIV+ lives then a single extra rate of some sort could be applicable.

If the risk within the group is not homogenous, rating factors (in addition to the standard ones used already – gender, age etc) would need to be considered.

Rating factors likely to be some sort of medical marker (CD4, viral load, AIDs defining illness etc) and they will need to charge separate rates at various levels.

Adding more rating factors makes the pricing more complicated but more accurate. This trade-off needs to be considered.

The insurer will need to decide how to charge. Separate rate tables for these lives or a loading placed on standard rates at UW stage. It is likely to be the latter if treated the same as other chronic illnesses.

The insurer would then need to consider any data / research to support and validate the pricing. May use reinsurers who have access to relevant data or their own research to assist.

Insurer would need to ensure that any data / research used is relevant and applicable to the lives that they are offering the cover to.

There is little data / research for long-term mortality of HIV+ lives. Insurer will need to decide how to handle this i.t.o it being an additional uncertainty.

Insurer would also need to test the reasonability of the final rates:

- Need to check that the price isn't perceived as a decline. Is charging 2x, 3x etc reasonable?
- Need to check price against other diseases such as diabetes. Need to be able to explain any difference between perceived risk between the two and the cost differential between the two.
- Need to make comparisons to the market if possible

Risk

The insurer would manage the risk through the product design and terms offered.

- Insurer could limit its exposure to this risk by offering a maximum sum insured.
- Insurer could offer only offer term and not WOL cover. This reduces the uncertainty involved with long-term pricing.
- Limit the availability of guarantees which will allow the company the possibility of adjusting rates.
- Limit the availability of options which would limit further possible anti-selection, e.g. exercising future cover option if condition deteriorates.

- Insurer could UW these lives more strictly in that they could only allow HIV+ lives that are otherwise in good health
- Offer life cover only initially – more certainty in terms of pricing. Consider disability and CI at a later stage.
- Insurer could try and enforce some sort of treatment compliance monitoring within the product but this is likely to be difficult / costly

Insurer could reinsure a large portion (or all) of this risk and slowly build up its own experience.

Other external risk factors (as per part ii) cannot be easily mitigated through design. These would need to be allowed for through additional risk margins in pricing.

END OF MARKING SCHEDULE