

Institute of Actuaries of India

Subject SP1 – Health and Care Principles

November 2019 Examination

INDICATIVE SOLUTION

Introduction

The indicative solution has been written by the Examiners with the aim of helping candidates. The solutions given are only indicative. It is realized that there could be other points as valid answers and examiner have given credit for any alternative approach or interpretation which they consider to be reasonable.

Solution 1:

- i) Key risks**
- CI incidence rates higher than expected leading higher than expected claim outgo due to
 - ... due to lack of past credible and relevant data
 - ... due to underwriting not robust enough to curtail anti-selection
 - ... medical advances leading to early diagnosis of CIs and some CIs that would have gone undiagnosed are now becoming claims; also, some claims arising sooner
 - ... medical advances leading to reduced mortality due to CIs
 - ... the risk is to some extent mitigated due to return of premium structure – more CI claims leading to less return of premium payout
 - Investment returns lower than expected leading to not enough funds to pay non-claim return of premiums
 - Anti-selective lapses leading to worsening experience amongst staying lives
 - Actual expenses may be higher than the one priced for because of the low volume of sale or poor persistency
- [3]
- ii) Reasons for reinsurance**
- To access reinsurer's expertise with respect to [0.5]
 - o Underwriting,
 - o CI definitions/exclusions,
 - o Pricing,
 - o Investment, and
 - o claim management [1]
 - To help reduce new business strain through higher first year RI commission [1]
 - To protect against results volatility due to large claims [0.5]
 - Reinsurer's terms are attractive relative to the company's view of the riskiness of the product [0.5]
 - To help reduce capital requirement [0.5]
 - To help reduce the risk of insolvency, especially the company's solvency position is border-line [0.5]
- [Max 3]**
- iii) Investigations**
- Reconcile the numbers from reinsurance bordereaux and financials [0.5]
 - Check if all claims have been reported to the reinsurer; there may be outstanding and disputed claims that may become payable and lead to recovery from the reinsurer [0.5]
 - Check if the low claims are due to underwriting selection effect in early durations of the product [1]
 - Compare earned premiums (note level premium paid for an increasing risk) to incurred claims (paid + pending + IBNR claims) [1]
 - Cost vs benefit analysis – assess stochastically what happens to capital, stability of results and solvency projections if there is no reinsurance [0.5]
 - Check what proportion of risk is being reinsured overall, the smaller the proportion the results will be more volatile for the reinsurer and so need to take a long-term view of reinsurance cost vs benefits [1]

- If the reinsured exposure/claims are credible, then check the cost vs benefit across varying retention and reinsurance structures [0.5]
 - Allow for any pricing or underwriting tools offered by the reinsurer free-of-cost [0.5]
 - If there is still large gap, then check if there are more competitive reinsurance terms available [0.5]
- [Max 5]**
- iv)** Reasons for launching the unit linked version
- To make it easier to do vary the risk charges over time in line with experience
 - ...this will likely reduce anti-selective withdrawals if premium rates increased compared to the conventional design
 - To pass on the investment risk to the policyholders (so, whatever the money left in the fund is returned to those made no-claim)
 - To be more transparent to the policyholders on the risk and investment components
 - To satisfy any regulatory changes requiring such transparency for product with investment component
 - The conventional design may have premium rates guaranteed
 - ... causing mismatch if reinsurance terms are not guaranteed
 - ...onerous capital requirements due to regulatory changes for guarantees
 - ...market investment conditions are no longer conducive for the company to take on the investment risk
 - To be more flexible premium payment (e.g. premium holidays, top-up premium etc.) [2]
- v)** Changes to reinsurance structure
- Unit-linked design is typically less capital intensive – so, less need for financial assistance from the reinsurer – so, initial RI commission can be removed or reduced [1]
 - Rates can be made reviewable leading reduced morbidity risk and consequently lesser need for reinsurance – so, the proportion of risk ceded can be lower – would still need weigh the practical consequences of increasing charges, impact on capital and solvency etc. when setting the retention level [1]
 - Any changes need to balance with the technical/tools support required from reinsurers and so certain minimum level of reinsurance may be desirable depending upon company’s overall relationship with the reinsurer [1]
 - Individual surplus risk premium reinsurance would be more appropriate [1]
- [Max 2]**
[15 Marks]
- Solution 2:**
- i)** Principles of Investment
- a. Company should select investments that are appropriate in nature, term and currency of liabilities [0.5]
 - b. The investments should also be selected so as to maximize the overall return on the assets, where overall returns include both income and capital gains [0.5]

- The extent to which (a) may be departed from in order to meet (b) will depend, inter alia, on the extent of the company's free assets and the company's appetite for risk [1]
- Or equivalently, the company should invest to maximize the overall return on the assets, subject to the risk therein being within the financial resources available to it [1]
- [Max 2]**
- ii) Investment strategy for PMI
- PMI claims are generally short term and so will require short term assets to back them. [0.5]
 - The amount of a PMI claim is unknown, in fact it will not be known until then end of the course of treatment. [0.5]
 - So, it is important for the insurer to hold some liquid assets to back the possibility of claim being higher than expected. [0.5]
 - Insurer may consider holding cash or short-term G-sec bonds or high-quality corporate bonds as they are highly liquid with low volatility of returns. [0.5]
 - PMI claim amounts are linked to medical inflation. Medical inflation is typically higher than the one used in pricing over a given period. [0.5]
 - It's unlikely that a bond linked with index of medical inflation will be available. The insurer could use index-linked bonds that are linked to price inflation. [0.5]
 - Expenses will be linked to a combination of price and salary inflation, so the insurer should aim to match these liabilities and with assets linked to index. [0.5]
 - Index-linked bonds based on price inflation would be a good match for expenses. [0.5]
 - Insurer could consider investing any free assets in higher yielding assets, such as equities, in order to generate higher expected returns for shareholders. [0.5]
- [Max 3]**
- iii) Factors that should be considered before re-pricing
- Compare with competition - similar PMI products offered in the market by competitors particularly the waiting period, price, exclusions, options available, policy wordings and distribution channel [1]
 - Is there a need to tweak the product - new options/cover/benefits/policy wording etc.? [0.5]
 - Do you have the optimal reinsurance structure and competitive reinsurance terms? [0.5]
 - Check the underwriting policy of the company with that of competitors to make it attractive. Look at ways to reduce underwriting without increasing the scope for anti-selection (predictive UW, targeted marketing, product design controls such as waiting period etc.) [0.5]
 - Check the claim management is robust – faster settlement and catching fraud/abuse- better service may allow higher premium to be charged [0.5]
 - Impact of any other customer engagement / claim cost reduction initiatives e.g. wellness programs, preventive medicine etc. [0.5]
 - Effectiveness of in-house vs TPA claim management [0.5]
 - Cost negotiation with providers/network management [0.5]
- [Max 3]**

iv) Steps involved in re-pricing

Claim incidence rates

- Analyze own experience by
 - o age
 - o gender
 - o occupation
 - o smoker status
 - o distribution channel
 - o provider network

TPA (if more than one TPA involved)

- Several years of experience may be combined to produce credible data [1]
- Trends in experience analyzed with the data over time [0.5]
- Changes that may affect claim incidence rates needs to be considered while projecting the rates, e.g. changes in economic conditions, mix of business and policy benefits and conditions [0.5]

Claim amounts

- Using past data subdivided as above, the average cost per claim would be calculated by dividing the total claim costs by the number of claims [0.5]
- Claim amounts will be projected to the period for which new rates will apply allowing for the impact of changes in
 - o medical treatments
 - o cost of treatments
 - o hospital charging structure
 - o medical cost inflation [1]

Risk premium

- The premium to cover expected cost of claims is found by summing over all the different benefit clauses covered by the policy, Risk Premium = $\sum ik * ACk$ [0.5]
- Where i_k is assumed incidence rate for benefit clause k & [0.5]
- AC_k is expected average cost of claims, per claim, for benefit class k [0.5]
- Determine persistency assumption [0.5]
- Numbers of renewal will be divided by the number of policies coming up for renewal, in the past experience data, as a starting point for estimating future persistency rates [0.5]
- Rates may be analyzed separately by
 - o distribution channel
 - o occupation
 - o duration since policy was first sold [0.5]

Expense/expense inflation assumption

- The insurer will need to analyse its recent expenses due to
 - o initial expenses of acquiring a new policy data
 - o expenses of renewing a policy
 - o expenses of policy termination
 - o claims management expenses [1]
- Data may need to be divided into homogenous group, if necessary [0.5]
- The expenses will be analyzed relative to appropriate measures e.g.
 - o selling expense as % of premium
 - o claims and underwriting expense as % of average claim amounts
 - o remaining expenses per policy [0.5]
- Dividing by the appropriate measure give the historical expense loading for the contract [0.5]
- It will then be increased for inflation to the middle of the period for which they are expected to appropriate [0.5]
- Commission would be allowed at the rate that the insurer intends to pay. [0.5]
- Appropriate per policy expense assumption would be obtained by considering total expected future new business volume and renewals [0.5]
- External data used to support/validate the internal investigations/results eg. reinsurer's data, industry benchmark studies [0.5]
- However, differences in applicability and relevance of these data must be considered [0.5]
- Allow for the impact on claims/persistency of any decision taken by consideration of the factors in (iii) above [0.5]

Office premium

- Determine the appropriate profitability considering the level of competition and the shareholders' expectation [0.5]
- Office premium = risk premium + expense + profit [0.5]
- Margins will need to be included in excess of best estimate assumptions, in order to introduce risk protection and to generate expected profit [0.5]
- Effect of any existing or anticipated reinsurance should also be allowed for in pricing [0.5]

[Max 7]**v) Data issues for overseas market**

- There are various sources of data that the insurance company might get these, but all of these have some weaknesses. For example, the insurance company's own data could be of some use, but the overseas market experience may differ because of difference in [0.5]
 - o general health of population
 - o underwriting levels and approach
 - o target market
 - o distribution method and channels
 - o provisions by state
 - o attitude towards claiming benefits [1]

- The company might be able to use industry data or data from the reinsures [0.5]
 - These would have to be treated with caution- any of these data might also be of poor quality in themselves e.g. Inaccurate/out-of-date data [0.5]
 - The company would also use its own data as a basis for its expense assumptions - However, there may be entirely unsuitable for the new market. Because of different operating practices, regulation, distribution methods and commission levels. [0.5]
 - It should be possible to get some information from new market, but significant judgment will be needed in producing assumptions. [0.5]
 - A similar problem exists in persistency. Any domestic data may be almost irrelevant to the overseas market where selling practices and customer behavior may be quite different. [0.5]
 - Overall, benchmarking the rates with similar products offered by competition in that market would help. [0.5]
 - Given the uncertainties, a higher use of reinsurance may be appropriate initially till the company builds its own experience and expertise required for the market [0.5]
 - Also, monitor sale volumes and experience closely to timely react [0.5]
- [Max 4]**
- vi)** Interpretation of the results
- BC by age band
- in general, females higher than males is as expected when it comes to morbidity (the opposite of mortality) [0.5]
 - However, for children (up to age 19) the results look unreasonable – we’d not expect material gender difference in those ages [0.5]
- Coinsurance
- results look counter-intuitive; one would expect lower BC for higher Coinsurance due to saving on part of the claim borne by the insured and less incentive for small claims coming through [1]
- Annual medical limit (AML)
- BC relativity looks as expected – higher the limit greater the risk/cost [0.5]
 - AMLs such as 500/1000 look unreasonably low – in these cases, it is likely that the premium will equal the limits [0.5]
- Group Size
- The results do not look intuitively correct –other things being equal, we’d expect that the risk is better with larger the group as the smaller ones are more likely to be volatile due to catastrophe/maternity/PEC claims etc. [1]
- Marital status
- Hard to reason out why married is heavier than single; it could be argued that, other things being equal, we might expect the opposite [0.5]
- [Max 4]**
- vii)** Further investigations required
- Type of analysis – multi-variate or univariate; univariate models do not allow for correlation between variables and so the results could be mis-leading [1]

- Data quality – complete, accurate; need to run data validations and consistency checks; reconciliation with independent sources (e.g. financials, data used for statutory valuation etc.) [1]
- Data standardization – even with all variables remaining the same, the claim cost will vary by the type/severity of illness/treatment – so, non-standardized data can lead to counter-intuitive results [1]
- Data credibility - whether data in each risk grouping is credible; if not, the relativity may be mis-leading [1]

[Max 4]

[27 Marks]

Solution 3:

i)

Types of reserves

- For each in-force policy, the insurer should hold the expected present value (EPV) of future claim inceptions allowing for different benefits provided in different state of impairment [0.5]
- Plus the EPV of future expenses [0.25]
- Less EPV of future premiums [0.25]
- Plus the expected cost of any options [0.25]
- For each claiming policy, the insurer should hold the current claim annuity value of the benefits in payment allowing for different benefit levels and for the claimant's current state of health [0.5]
- Plus EPV of associated future claim expenses [0.25]
- Additional reserves may be needed to cover expected cost of future payments that may be made for existing policyholders who have reported the need for care but for whom the cost of future payments have not commenced [0.5]
- This may be because they are still within the deferred period of their policy as at the valuation date because of their severity level is being ascertained. [0.5]
- Outstanding claims reserve (reported but being assessed) and IBNR (who need care, but have not yet reported it to the insurer) [0.5]
- An investment mismatch reserve might also be held, to allow for the extent to which assets do not match liabilities [0.5]

[Max 3]

ii)

Principal elements of the supervisory valuation basis

- Transition rates from health to sick, between levels of care, and from all states to dead. [1]
- This is a protection policy, and total claim costs will be very sensitive to claim incidence rates and to duration of claim payments. Reserves will therefore be very sensitive to the choice of basis. [1]
- Investment return - Cash flows will tend to be positive at early durations, becoming increasingly negative at later policy durations. [1]
- These factors lead to a large reserve requirement and considerable sensitivity to the investment return assumption used for discontinuing the future cash flows. [1]

- The reserve will be sensitive to both the returns obtained on the existing assets and to those obtainable from investing the future positive cash flows as they arise and so both aspects of future investment performance are important. [1]
- Inflation of care costs-this affects premium and benefit levels. The older the policyholder, the less the future premium growth compensates for the future benefit growth, so that there is an increasing risk from high inflation. [1]
- Reserves will therefore be increasingly sensitive to the inflation assumption the older the current age of the policyholder. [1]
- Expense inflation- Inflation also affects future expenses, which can be a significant of total costs, and further increases the sensitivity of the reserves to this assumption. [1]
- Expenses -The business can be very expensive to administer, due to costs of claims handling and claims underwriting especially given the different levels of benefit available. [1]
- Fixed expense per policy can be disproportionately high while the volume of claims handled is low and so could have a significant impact on reserves. [1]

[Max 7]

[10 Marks]

Solution 4:

i) Advantages/Disadvantages of reviewable premium rates

Advantages

- The company can offer the product at lower premium rates than if guaranteed [0.5]
- ...since cost of guarantee need not be built in original premium rates [0.5]
- ...lower rates might encourage more sales leading higher insurance penetration and minimizing covering protection gap [0.5]
- ...allows innovation/experimentation in terms product designs/underwriting etc. which is good for the industry and customers [0.5]
- Lower reinsurance cost leading to more competitive terms for customers [0.5]
- Relatively lower capital requirement and so better value for shareholders [0.5]
- ...might encourage more investment into the insurance sector [0.5]
- ...likely leads to fair treatment to customers as the rates are adjusted in line with experience of the pool of lives [0.5]
- Overall, can lead to better value for money for the customers [0.5]
- ...reduce the risk of insurance companies going insolvent [0.5]

[Max 3]

Disadvantages

- Uncertainty for the policyholder with respect to future cost of insurance [0.5]
- ... will affect their financial planning [0.5]
- ... may lead to reduced sales as customers put-off buying [0.5]
- there would be lot of burden on insurers to demonstrate that they are treating customers fairly [0.5]
- If premium increase is considered excessive there could be selective withdrawal [0.5]
- ...leading to poor experience [0.5]
- may defeat the 'pooling of risk' if the insurers start more granular segmentation of customers for premium review [0.5]

- increased administration for insurers for implementing and communicating to the customers [0.5]
 - insurers and reinsurers may disagree with respect to the quantum of review [0.5]
- [Max 3]**
[6]
- ii)
- The policy should state clearly when the reviews will take place [0.25]
 - Set out any minimum and maximum limits (if appropriate) [0.25]
 - Premium reviews should be as smooth as possible [0.25]
 - Premium reviews should be based on the performance of the whole portfolio [0.25]
 - ...not based on individual's experience [0.25]
 - Establish an internal governance for review satisfactory to the regulator [0.25]
 - Document clearly how the decision to review has been arrived at [0.25]
 - Strike right balance between 'minimizing cross-subsidies' [0.25]
 - ...and 'avoiding discrimination' [0.25]
 - Clear communication/explanation on the review mechanism at the point of sale [0.25]
 - ...frequency of review [0.25]
 - ...when/how will it be communicated [0.25]
 - ...illustrations [0.25]
 - Ensure admin systems can handle the changes without errors [0.25]
 - Offer guaranteed renewability [0.25]
 - ... to avoid the insurer selecting against the policyholders [0.25]
 - ...have the reinsurance contracts aligned to avoid mis-match [0.25]
 - ...including what happens when the insurer and the reinsurer differs in the review [0.25]
 - Medium to long term view should be taken in the review [0.25]
 - ...to avoid pricing discontinuity [0.25]
 - Distinguish between random fluctuations and fundamental changes to the experience [0.25]
 - have regard to the reasons for the experience [0.25]
 - ...and its relevance for future periods [0.25]
 - Consistency between pricing of existing and new business [0.25]
 - Comply with any regulatory requirements [0.25]
 - Not to deviate too far from competition/industry practice [0.25]
 - Not to set premiums too low at the outset to attract sales [0.25]
 - ...to avoid hefty increases/selective lapses later [0.25]
 - Ensure the reviewability does not lead to lapse and re-entry problem [0.25]
- [Max 7]**
- iii) Factors to consider for premium review
- Policyholder reasonable expectations set by [0.25]
 - ... communication at point of sale [0.25]
 - ... communication at prior review [0.25]
 - ... practice by competitors [0.25]
 - ... any court rulings with respect to premium review disputes [0.25]
 - One-off or experience worsening fundamentally [0.25]
 - Are there other ways of improving the experience [0.25]
 - ...wellness initiatives to encourage policyholder to take care of their health better [0.25]
 - ...preventive medicine [0.25]
 - ...negotiation with health care providers [0.25]
 - ...strengthening initial underwriting [0.25]

- ...strengthening claim management [0.25]
 - Reinsurer's view [0.25]
 - Action by competition [0.25]
 - Can the increase be introduced in a phased manner? [0.25]
 - ..especially when the underlying causes for experience is not quite clear [0.25]
 - Upfront consultation with the regulator if there is large increases [0.25]
 - Impact on persistency/selective lapsing and resulting impact on profit [0.25]
 - Opportunity to use the communication with the policyholder to increase business [0.25]
 - Impact on new business rates and volumes [0.25]
- [Max 6]**

Invalid reasons for changing premium:

Recouping losses incurred up to date of the review

- Increasing profitability margins beyond those originally assumed [0.5]
- Unfairly targeting a particular group [0.5]
- Unfairly targeting an individual [0.5]
- Errors made in original pricing assumptions [0.5]
- Deliberate low initial price to gain market share [0.5]
- Increasing reinsurance costs, unless based on valid reasons [0.5]
- One way only i.e. company will only consider increasing but never consider reducing premiums [0.5]
- One-off adverse experience unlikely to recur [0.5]

[Max 3]

[8]

iv) Removal of gender difference in rates

General

- Gender is an important rating factor for morbidity risk and so require different rates to be 'actuarially fair'. So, unisex rates will settle between male and female rates. [1]
- Females will tend to a better rate for some products (eg. PMI) and so might lead to higher proportion of females in the portfolio [1]

Implications for insurers

- Gender mix risk – insurers' run the risk of the gender mix being different from that assumed. [1]
- May mitigate the risk to some extent by aligning the sales and marketing efforts to the mix assumed in the pricing [0.5]
- The associated anti-selection risk is minimal due to the practice must be adopted by all the insurers. [0.5]
- Depending upon the level of uncertainty with respect to the mix, insurers may need to include 'risk margin' in pricing and so leading to higher rates, other things being equal [0.5]
- Further increase in rates might result from insurers attempting to pass on the cost of transition (system changes, re-pricing etc.) [0.5]
- Sales do not have to explain why the rates are different between gender, which is typically a difficult conversation [0.5]
- No implication for products targeted to a gender (eg. female cancer) [0.5]
- Insurers may attempt alternative rating factors as proxy to gender (eg. shoe size, BMI) but these may be deemed discriminatory by the regulator [1]

Implications for policyholder

- For children, this will not lead to any material change in the rates [0.5]

- May be seen fair by the customers [0.5]
- Females get a better-deals while males will have to pay more for the same amount of cover for some products [0.5]
- Overall, customers may have to pay more due to additional 'gender mix risk margin' by the insurers [0.5]
- Helps bring more females into the insurance bucket in markets where there is currently very less females health insurance penetration [0.5]

[Max 7]**[28 Marks]****Solution 5:****i)**

Premium structure

- The premium charge structure will depend on the number of existing account customers. [0.5]
- It is unlikely that the premium will be based on actual age and sex characteristics to keep administration simple [0.5]
- It is likely to be on an age-banded/gender differentiated structure [0.5]
- If there is large pool of lives, then even unit rating may be required [0.5]
- As this involves mix risk for the insurer, a profit-sharing element to the premium structure may be introduced [0.5]
- Profit sharing may also be seen fair by the bank [0.5]
- There may be a standard premium charged for all customers falling within certain parameters for example, up to age 60, and for other customers, a specific premium might be calculated [0.5]
- The premium would be reviewed regularly – at least annually. [0.5]
- If the insurer had incorporated pre-existing condition exclusions or moratorium clauses, then this would also affect the premium/underwriting structure [0.5]
- The frequency of premium payment would be considered [0.5]

[Max 4]**ii)**

How the bank meets the cost of insurance

- Directly or indirectly, the bank would want to pass on the cost of insurance plus cost of administering the insurance [0.5]
- CI is a high premium product, and so the bank is unlikely to be willing or able to fund for all its customers [0.5]
- It is therefore likely that at least some of the premium will be charged to customers [0.5]
- This may be in the form of an explicit premium, or it may be part of an overall fee for the bank account [0.5]
- So, the bank may effectively earn commission on the business. [0.5]
- Alternatively, it may make a loss on the product, if this is offset by profits from a higher level of account business attracted by the benefit [0.5]
- ...and increased customer loyalty and sale of additional banking products (eg. loan) [0.5]
- ...the risk of default is on loan products due to the borrower suffering from a CI is mitigated with this product – a plus for the bank [0.5]
- The amount charged to the customer is likely to be a flat amount per customer (i.e. no "rating" factors) [0.5]
- Carry out research into what level of charge would be tolerated by customers and/or look at the competition. [0.5]

[Max 4]**iii)**

- Morbidity experience would differ. It may be heavier for the product offered by the bank. [0.5]

- If the premium charged does not depend on the actual risk factors of the insured lives then there is a risk that the insured lives are a higher risk mix than assumed – e.g. that they are older. [0.5]
 - There is a risk that even for the same age and sex of individual, the experience would be worse on this book of business because of no underwriting [0.5]
 - The insured lives may come from a lower average socio-economic group, as they are only being selected based on eligibility for a bank account [0.5]
 - There may be different conditions/benefit scope which will impact morbidity experience. [0.5]
 - Anti-selection risk: as there is no underwriting, individuals who are sick may take out the bank account just to get the CI cover. [0.5]
 - This may be offset by the effect of a proportion of the people taking out the bank account having no interest in the CI. [0.5]
 - ...or, mitigated to some extent by having Pre-existing exclusion and/or waiting period [0.5]
 - There is also the possibility of a concentration (or aggregation) of risk because this could be a very large block of business and the bank's customers may have certain risk factors in common, due to its marketing (e.g. nature of industry) – this could lead to periods of heavy experience. [0.5]
 - The extent to which the bank account customers pay for the product will also affect the experience. [0.5]
 - The more that is paid by the customer, the greater the selection risk and it is more likely that people taking out the product are already sick. [0.5]
 - The propensity to claim would also be affected. If customers do not pay (or pay very little) for the product, they may not value it highly, and may not even really realize they have it – propensity to claim would be low. [0.5]
 - If customers do pay a material proportion of the premium for the product, this would increase the propensity to claim, and hence mean that morbidity experience would be heavier. The degree of selective lapsing may also differ. [0.5]
 - The bank may be able to put more pressure on the company to accept claims that are in dispute. [0.5]
- [Max 5]**
- iv)**
- Reputation risk – the insurer is dependent on the bank's staff to explain the product, and customers may not understand what they are getting. [0.5]
 - Expense risk – this is a new sales channel and so there is a greater risk that the expenses are different from estimated. [0.5]
 - New business risk – in some ways, volume risk may be lower as the insurer will be certain of getting a good chunk of business but if the bank moves to another provider then all the business will be lost in one go. [0.5]
 - ... there is also increased volume risk if more customers take out the account than expected – because the quantity of sales becomes outside the insurer's control. [0.5]
 - Competition risk – if another insurer decides to compete in this market, prices, and hence profit margins, may come under pressure [0.5]
 - Reinsurance risk – reinsurance may not be available for this style of business or may be available only on individual terms. [0.5]
 - Lapse and re-entry risk – this new product could lead to the existing portfolio of customers lapsing and taking out this account instead. Profit margins may well be lower. [0.5]

- Assumption risk – there is a greater risk of incorrect pricing leading to loss-making business, as this seems to be a new market/distribution method. [0.5]
- Data risk – there is a risk that it is difficult to get adequate data from the bank both for reserving and pricing [0.5]
- Regulatory risk – there may be a greater risk that such arrangements become prohibited by regulators or subject to heavier constraints. [0.5]
- Counterparty risk – the company may be exposed to greater risk of serious default on premium payments from the bank since this is concentrated in one counterparty, rather than through many different intermediaries. [0.5]
- Lapse risk – will have different (possibly lower) lapse rates compared to intermediary business because it will be based on decisions to move the bank account rather than to lapse the insurance policy [0.5]
- Systems Risk – Insurer will invest in development of system for bank customers to be able to access the product and its details and collect data. This would lead to investment in this respect. [0.5]
- Similar product risk – It is possible that customers who would have directly come to insurer would now come through bank to get cheaper rates and no underwriting [0.5]
- Risk of having to pay claims that do not meet CI definition due to the bank pushing for it [0.5]

[Max 7]

[20 Marks]
