**2011 S1**

**Q1** c) i. *Explanation to CFO in respect of lower surrenders on the current year’s profit:*

* Due to the surrender penalties on the products, the payment of surrender value is lower than the release of policy liabilities on surrenders.
* On average each surrender actually creates profit for the company in the current year due to the payment of surrender value being lower than the release of policy liabilities on surrender.
* In the profit analysis, actual surrenders were lower than expected surrenders. This means actual MOS profit from surrenders was less than expected MOS profit from surrenders. Therefore from a MOS profit perspective, in the current year having lower surrenders means that we have lower MOS profit from surrenders than expected.

*ii. Explanation to CFO in respect of lower surrenders on future years’ profit:*

* Lower surrenders in the current year means that future MOS profits will be higher (assuming everything else is unchanged) as there are more policies inforce in the future than expected.
* If the lower surrenders continues and is an indicator of a longer term trend, then the surrender rate assumption may be lowered. This also means that future MOS profits will be higher as there are more policies inforce in the future.
* Having lower surrenders than expected also means that we have more policies inforce than we expected to spread maintenance expenses, thereby resulting in lower expense unit costs. This results in a further increase in future MOS profits.

d) *The following issues should be identified:*

* If there is an asset allocation change reflecting changes to the investment strategy, this will impact the investment earning rate assumption. This is a **non-market economic assumption** change and **will not change the policy liability and thus has no impact on the profit in the year this change occurs**. However, future profit margins will increase, leading to higher future profits.
* Asset Allocation is set with a number of different elements and investment earning rate is only one of them. Apart from earning rates, there are serious considerations of asset liability and cash flow matching as well as capital management that influence the current asset allocation.
* If more risk is taken on with the assets such as equity investment then this could result in a greater mismatching between the assets and liabilities. This mismatch will result in higher solvency and capital adequacy requirements.
* The more risky assets such as equities have significantly more volatility and as a result may not produce higher earning rates in the short term as is required by the CFO.
* The traditional business is backed by suitably dated fixed interest investments taking into account the **guarantees** that are offered as this assists in cash flow matching of surrender payments and assets maturities. If investments are made into equity investments then this fundamental principle is not being followed. This leaves the company vulnerable to not meeting surrender payments when equities are at a low level and hence liquidity risks.
* Even if investing in more risky assets does increase investment income, it may actually reduce the return on capital due to the much higher capital requirements of those risky assets. This could reduce the return on capital to lower than the company’s required rate of return.
* There could be an opportunity to mismatch the durations of the bonds or take additional risk with different bonds such as corporate bonds instead of government bonds to increase the returns.
* Consideration needs to be given to the company’s risk profile to see if an asset/liability mismatch is allowed.
* Tax implications and transaction costs when selling assets.
* The existence of hedging strategies to overcome poor investment returns.

**Q2** a) *The 8 pieces of information you require include:*

* Previous AUSCO Policy Liability Valuation Reports and Appraisal Value Reports, Financial Statements and APRA returns.
* AUSCO’s board reports and internal management reports on this business.
* Broker reports which may give some insight into AUSCO and the retail business BENLIFE wishes to purchase.
* Capital adequacy requirements
* Statistical information on the block of retail business such as number of policies, annual premiums inforce, sums insured and movements in number of policies over the past few years.
* Individual policy data so a complete projection of cash flows can be carried out.
* If individual policy data is not available, projection of cashflows from AUSCO.
* Policy terms and conditions of the products, including any guarantees that are provided on the unit-linked business. LPS 320 reports.
* Information on the investment strategy for both non-par endowment and unit-linked business.
* Type of investment managers (internal and/or external managers).
* Details on the type of distribution channel selling the business (e.g. tied agency force or a direct channel).
* Systems used to administer the non-par endowment business and unit-linked business.
* Details on unit-pricing of unit-linked business, including unit-pricing methodology in how unit prices are determined.
* Assumptions used in the Appraisal Value reports prepared by AUSCO.
* Actual to expected experience with regard to mortality, lapses and surrenders over the past few years.
* Information on new business production over the past few years.
* Information on other recent industry purchases.
* Current reinsurance arrangements of the non-par endowment business.
* Interview with the purchasing company, BENLIFE, to get an understanding of scope of the project and their strategic intentions for the purchased business etc;
* Interview with AUSCO management to obtain an understanding on why AUSCO is selling the business. Are they remaining in life insurance?

b) *i. Assumptions:*

* Set own assumptions for the purpose of the valuation, to place a value of AUSCO’s retail business.
* Determine BENLIFE’s risk discount rate that reflects the shareholders risk of BENLIFE.
* Determine one off costs, including costs of the purchase process (due diligence, legal and advisor fees and integration costs with existing portfolio, system integration, staff recruitment and retraining, incentives for key AUSTCO staff to transfer to BENLIFE).
* Determine maintenance expense assumptions, taking into account future synergies with any reduction in unit costs per policy.
* Determine investment manager fees, depending on whether internal and/or external investment managers are used.
* Determine remuneration for distribution channel (salaried versus commissions) and any increase in costs to retain the advisors.
* Determine lapse assumption, taking into account any potential increase in lapses from dissatisfied policyholders.
* Determine mortality assumptions for the non-par endowment business taking into account any change to underwriting standards, particularly if AUSCO’s underwriters and claim managers (with their procedures) are not employed by BENLIFE.
* Determine investment earning assumptions based on the assets backing the liabilities. This needs to take into account the investment strategy adopted by BENLIFE for the non-par endowment business and unit-linked business, which may not be the same as AUSCO.
* Determine new sales, new business growth rates and margin squeeze for the new retail business, taking into account business plan of BUSLIFE.

*ii. Capital Requirements:*

* Calculate the value of the capital requirement for the business under BENLIFE’s ownership, which will be used in your projection models.
* Target Surplus will be based on the target surplus policy for BENLIFE. BENLIFE will need to consider the target surplus policy for the non-par endowment business and unit-linked business, as these have different profiles to the group life business of BENLIFE.
* Any capital injections required to fund the non-par endowment business.

*iii. Calculations:*

* VIF: Calculate value of inforce business as the present value of future distributable profits (allowing for capital requirement/target surplus), tax and imputation credits.
* VNB: Calculate value of new business as the PV of future distributable profits from new business (allowing for capital requirement/target surplus), tax and imputation credits.
* Perform sensitivities on the different assumptions to get different values, especially with lapse, surrender rates, risk discount rates and expense assumptions.
* The key sensitivity is the impact on the value of the retail business if there is a shock lapse, where a large proportion of policies lapse after the purchase date.
* For both VIF and VNB, ensure that the valuation of all the guarantees for investment linked business are appropriately addressed.

c) *Checks to be performed*

* Verify that the movement in the policies inforce at the start and end of year is consistent with the new policies and exits.
* Check that policy information is consistent with the summary information provided on number policies, sum assureds, premiums and value of units.
* Perform consistency checks on the data between the administration system and the valuation system.
* Ratio checks on results such as Value Inforce/Annual Premium Inforce and Value of New Business/Inforce.
* Check your value against internal Appraisal values perfomed by AUSCO, adjusting for differences in assumptions.
* Check your value against values achieved for similar purchases.

d) *i. New assumptions needed:*

* take-up rate
* future mortality and interest rate for those who choose to opt in

ii. *Capital Requirements:*

Examine the capital requirement for such an option and include it in value of capital.

*Calculation:*

Valuation of the option and sensitivities at different rates of conversion, using stochastic projection models.

e) *Risks associated with the purchase include:*

* [Agents’ persistency] If the retail block of business was sold via tied agency force, then the agents could influence the persistency of the policies and the policies could lapse after the purchase. This would be a real threat unless an arrangement could be made to mitigate this risk. Need to take into account whether the other company’s agents are receiving commissions from this block of business as this will influence the actions of their agents after the purchase.
* [Strategy] The purchase of this block of business only makes sense if the company wishes to enter the retail market for new business that could involve the opening up of a tied agency force which would be a major restructure for the company.
* Management focus could be directed to the purchase of these products, with loss of focus on the current group business.
* If the purchase arrangement includes offers of employment in BENFLIFE to AUSCO’s underwriters and claim managers, there is the risk they may not accept these offers and their specialists skills and knowledge are lost. If offers of employment to key AUSTCO staff are not part of the purchase arrangements, then there are the costs of recruiting specialists and retraining staff.
* Complexity would be introduced in the administration of this block of business as it is currently administered on the other company’s systems. There would be issues of transferring the policies to our company or buying the other company’s systems and this would be very complex. The same issue applies to the unit pricing system.
* Risks associated with unit pricing, particularly unit pricing errors.
* Need to be sure that we understand the reason why the other company is selling this portfolio of business to us. Perhaps they are getting out of the life insurance business or perhaps they are just trying to remove a problematic block of business but still intend to keep selling life insurance business.
* The expense synergies to be delivered may not arise as expected with the risk of expenses increasing.
* Policyholders may be dissatisfied with another company taking over, with potential shock lapses.

**Q3** a)

|  |  |  |
| --- | --- | --- |
| **Point of Difference** | **MOS** | **NPV** |
| *Compulsory Point:* | | |
| ***Purpose*** | Used for realistic reporting of profit. | Used primarily for solvency and capital adequacy purposes. |
| *Non Compulsory Points:* | | |
| *Pattern of profits year by year* | Profits tend to be smooth as profits reflect planned profits, with profit recognised over time in line with the services provided such as risk for YRT (using premiums or claims as the profit carrier) and investment management for par endowment business (using supportable bonus as the profit carrier). | Profits are not smooth as profits are not designed to emerge in line with the services. A loss occurs in the first year, with profits in the early years that follow lower than MOS Profits, but in later years profits increase and are larger than MOS Profits. |
| *Nature of Assumptions* | Assumptions are best estimate assumption based on trends in the underlying experience of the company. | Assumptions are conservative with a margin above best estimate assumptions to give a higher reserve than under best estimate assumptions. |
| *Range of Assumptions* | A full range of assumptions is used to the extent that future CFs are affected. This covers: investment earning rates, tax rates, discount rates, inflation rates, CPI indexation, lapses rates, mortality rates, TPD rates, trauma rates, disability incidence and termination rates, acquisition, maintenance and investment expenses. | Usually only a discount rate and a mortality rate. In particular, lapse rate and expense assumptions are not included. |
| *Treatment of acquisition expenses* | Acquisition expenses are effectively deferred with part of each future premium used to recover the acquisition expense. | There is an allowance for acquisition expenses called a Zillmer or Sprague that alleviates some of the expense strain but in general the profits are lower in the earlier years than under MOS reporting and higher in later years. |
| *Change in Assumptions* | Assumptions used in the valuation of the policy liabilities are reviewed each year and changes in non-economic assumptions will affect the level of future profits unless there are losses to be capitalised or reversed.  Changes in economic assumptions are capitalised. | The assumptions are locked in at the outset of the policy and are not revised subsequently. |
| *Calculation of Policy Liability* | Calculation of policy liabilities is more complex as they typically use a projection method. Policy Liability is the sum of the BEL and PV of future profit margins using best estimate assumptions. | Calculation of policy liabilities is simpler as commutation factors are used. The policy liability is the PV of net premiums less the PV of benefits and premiums, with often no allowance for surrenders or expenses. |
| *Consistency with Asset Values* | Profit influenced by changes in asset values that are generally valued at **market** **value**. | Profit not affected by changes in asset values as assets may be valued at **book** **value**. |

b) To: CEO

From: Appointed Actuary

Subject: Setting of Expense assumption

**Introduction**

I am writing this memo in response to your enquiry on the setting of the expense assumption. The experience of the company shows that the unit costs have increased despite a material redundancy program that was put in place over the last 2 years. This is due to the relatively low sales and the increase in lapses over the last few years on all portfolios.

**Requirements of Actuarial Standards**

* For some assumptions such as lapse rates, it is possible to look at a number of years of experience and take into account all the data as well as the trend in coming up with the assumption.
* The actuarial standard that governs the setting of the assumptions requires that the assumption regarding renewal expenses is sufficient in order to meet the expected expenses in the following year.

**Circumstances when Expense Assumptions can be reviewed**

* You have mentioned that you are considering a redundancy program over the next few years, however given the above, I can only take this into account in setting the expense assumption if there are well established and agreed plans for reducing the costs in the next year. As I have not been provided with agreed plans which will reduce costs next year, I cannot allow for them.
* I should stress though that for me to allow for these plans, they need to be realistic and achievable and any material reduction of expenses such as a large redundancy program will likely have a significant impact on the operations of the business and this impact should be allowed for in the official business plans of the company.

**Professional Issues**

* If the reduction of expenses appears to be unrealistic then I would not be able to incorporate them in my assumption setting as it would put me at risk of professional negligence in accordance with non-compliance with the regulatory standard that Appointed Actuaries must comply with.
* Any change in expense assumption is subject to review and sign off by the actuarial auditors who must also act professionally and comply with the regulatory standards that govern auditors.

**Impact on Current Year’s Profit**

I would like to emphasize that the change of the expense assumption does not change the profit in the current year as the policy liability is unchanged, so the profit and loss will not be impacted for the current year.

**Impact on Future Profit**

* A reduction in the expense assumption would increase the expected future profit margins and so increases the future profits that are expected from the company. However please note that it does not mean that the actual profits will be higher as they will depend on the actual expenses at that time.
* If your redundancy plans do eventuate then they will benefit the actual profits in the future, but this might be offset by loss of staff morale and productivity.
* In addition, once the actual expenses have reduced then I will be able to take the reduction into account in setting the expense assumption in a few years time that will increase expected future profits.
* [Other valid point: You should also note that it doesn’t matter that I have not adjusted the expense assumption for the future redundancy program. This is because if lower expenses do emerge then an experience profit will emerge and reported profit will be higher than planned - thus the same profit will be earned irrespective of whether the expense assumption is changed or is not changed (ignoring issue of capitalised losses)]

**Impact on Appraisal Value**

The increase in the expense assumption will reduce the current Appraisal Value as this will reflect the lower expected future profits, but as stated above, if the expenses are reduced in the next couple of years, I will be able to revise the expense assumption and then the Appraisal Value would increase again so the reduction in Appraisal Value would be temporary.

Yours Sincerely,

Appointed Actuary

c) *i. Impact on profit of reducing bonuses declared to policyholders:*

* In accordance with the profit sharing arrangement in place, policyholders and shareholders share in total profits and total distributions 80%/20%. Total distributions are policyholder bonuses plus shareholder dividends. Whenever policyholders receive bonuses, the shareholders are entitled to receive a dividend at most equal to 25% of these policyholder bonuses.
* By definition, **profit is before the distribution of a dividend. Hence a dividend will not impact profit**. As dividend does not impact the current year’s profit, a reduction in policyholder declared bonuses does not increase current year’s profit.
* There is small second order impact on future profits. Reducing bonuses declared to policyholder reduces the shareholder dividend, which leads to higher shareholder retained profits. Higher shareholder retained earnings means interest on shareholder retained profits is higher.

*ii. Other issues:*

* Impact on policyholder expectations would also be impacted as they expected a stable declared bonus. This could severely impact the company, with the increase in surrender rates from dissatisfied policyholders.
* Impact on the competitive position in the market as a result of the lower declared rate with consequence impact on new business sales.
* Increase in surrender rates and lower sales, would lead to a reduction in future MOS profits and the Appraisal Value.
* If a lower bonus rate is declared then it would simply increase policyholder retained earnings for future bonus distributions. At the same time it would increase shareholder retained earnings for future dividends.

**Q4** b) *What is Target Surplus?*

Target Surplus is the holding of a level of shareholder free reserves in excess of the statutory capital requirement.

*Purpose of Target Surplus*

* It is generally accepted that free reserves above the statutory capital requirement should be maintained to ensure unusual events do not expose the company to breaching the capital adequacy requirement.
* Examples of unusual events include adverse claims experience, overrun in expenses and a significant fall in the market value of assets which generates a mismatch between guaranteed liabilities and assets.
* APRA does strongly recommend holding these reserves to satisfy policyholder obligations, although it is not required by legislation.
* Target Surplus is also required to support a credit rating for the business.

c) *Implications of complying with Head Office’s request to pay capital in excess of the Solvency Requirement are:*

* Could easily become technically insolvent with assets falling below the Solvency Requirement from the slightest change such as a small investment return fluctuation. The company would then suffer the severe consequences of becoming insolvent.
* Australian standards require that the Capital Adequacy Standard be met at all times or there would be restrictions on the business to conduct as an ongoing entity. The request to upstream all capital in excess of the Solvency Requirement would leave it falling short of the Capital Adequacy Requirement.
* If the company failed to comply with the Capital Adequacy Standard then the regulator would insist on understanding why such a situation has come about and would demand a plan for correcting it. If deliberate up-streaming of capital resulted in this then the regulator would insist on understanding why such an action was taken deliberately which breached the capital adequacy requirement.
* If the Capital Adequacy Standard is breached then no dividends can be paid. This is of particular concern, as LIFECO has been paying substantial dividends to its parent company for a number of years.
* No capital would be available to fund the capital strain from new business.
* If the Appointed Actuary deliberately allowed this situation to occur then he/she would be at risk of being questioned on professional negligence.

d) *My recommended amount of capital to be up streamed is set out below with reasons*:

* In order to ensure that assets do not fall below the Capital Adequacy Requirement plus Target Surplus, the maximum amount of capital that can be up-streamed to Head Office is based on the level of capital in excess of this level.
* [Consider future requirement change] It is important to take into account the new Capital Adequacy Requirements being introduced by APRA for life companies at 31 December 2011. It is estimated that LIFECO’s Capital Adequacy Requirement will increase by 5% based on 31/12/2010 figures. It would not make sense to release capital based on the current Capital Adequacy Requirements as at 31 December 2010, and then have to inject capital in one year’s time to cover the increase in capital adequacy requirement.

e) Reducing Capital Adequacy Requirement

**New Business Reserve:**

* New Business Reserve is a significant part of the Capital Adequacy Requirement. It could be reduced by lowering the capital requirements of new business. This could be achieved by reducing initial commission and paying higher renewal commission.
* Look at start selling less capital intensive products, such as investment style products.

**Resilience Reserve (asset charge):**

* There is scope to reduce the Resilience Reserve as there are too many risky assets (equity) for YRT, causing an asset/liability mismatch. If all assets are invested in fixed interest and cash, the Resilience Reserve would fall.
* The fixed interest portfolio should also be reviewed to assess if there is any duration mismatch between assets and liabilities. Better matching of duration will reduce the Resilience Reserve.
* The credit rating of the fixed interest portfolio should also be reviewed in terms of mix of government and corporate bonds, as well as the credit rating mix within each of these bond classes. A higher portion in government bonds with strong credit ratings will reduce the Resilience Reserve.
* Reducing the exposure to international equities will reduce the currency risk and thus reduce the Resilience Reserve.

**Inadmissible Assets:**

* Depending on the nature of the inadmissible assets, it may be able to reduce or eliminate its exposure to these assets by selling part of or all of them so that the inadmissible asset reserve reduces or is eliminated. This could be the case for shares in a company where the value of shares exceeds 5% of total assets.
* This is more difficult for an intangible asset such as a future income tax benefit.

**Expense Reserve:**

* The expense reserve is a large component of Capital Adequacy Requirement. The expense reserve is equal is 70% of annual fixed acquisition expenses (i.e. non-commission acquisition expenses). If this could be reduced, then the Solvency Requirement would reduce and thus the Capital Adequacy Requirement would fall.

**Reinsurance:**

* Make use of standard risk reinsurance to reduce capital, but this will come at cost and will reduce profits. Reinsurance reduces the capital requirement by reducing the MTV and the CTV.
* Under certain reinsurance arrangements, reinsurance funds the capital requirements of new business. This will reduce the need for capital to fund new business. Capital injections are less likely in the future.

**Reducing Target Surplus**

* It is not mandated by legislation that you need to hold reserves in excess of the Capital Adequacy Requirement. Thus capital up-streamed could be more than the $32m indicated above. However, the implication of reducing the Target Surplus is that there would be less of a buffer to ensure that the Capital adequacy standard will not be breached. If there was deterioration in the position the company could find itself short of capital. Therefore by reducing the Target Surplus it makes it more likely that a capital request may be forthcoming from the company to the Head office.

**Other:**

* By paying less or even no dividend this year or in future years, more retained earnings remain in the business, which can provide capital support for the high acquisition costs of future new business. This reduces the reliance on capital to be provided by the parent company.
* Instead of capital use subordinated debt, which is cheaper than shareholder capital.

**Q5** a) *Principles behind supportable bonus calculation are:*

* Supportable bonus is an indication of what level of bonus can be financially afforded for each year in the future.
* Requires available assets which with interest and premiums is expected to pay for the supportable bonus paid to the policyholder when a claim is paid, the shareholder dividend (25% of the supportable bonus), expenses and claims (based on bonuses declared up to the calculation date).
* Uses best estimate assumptions.
* The bonus based on the supportable bonus concept allows the company to declare relatively smooth bonuses from year to year.
* This keeps the policyholder expectations in line with what can be supported by the product.
* Theoretically, when the last policyholder leaves the company, all assets are extinguished. This is a function of the supportable bonus.

b) *The supportable bonus for inforce business is calculated as follows:*

It does not follow exactly the MOS supportable bonus calculation method, as assets available includes retained profits. (Note, MOS supportable bonuses are used to smooth profit for profit reporting purposes).

1. Determine the total assets available:

Policy Liabilities + Policyholder Retained Profits + Shareholder Retained Profits.

1. Deduct from the total assets available an amount to provide a buffer for future volatility in experience.
2. Determine best estimate liability:

= PV future benefit payments (based on bonuses declared to date) + PV future expenses + PV future commissions - PV future premiums

on best estimate assumptions

1. Supportable bonus is the policyholder bonus such that:

Assets available = PV future policyholder bonus

+ PV future shareholder share of bonuses (25% of p/h bonuses)

+ Best Estimate Liability

1. This requires repeating calculations using various bonus rates, perhaps by using a starting bonus then increasing the bonus at 0.5% intervals and then interpolating to get the supportable bonus rate.

c) *Issues the company faces if high declared rates continue to be used:*

* Continuing to declare high bonus rates based on a market competitive position is not sustainable and financially unsound. As companies price their products differently, the bonuses that competitors declare have no relevance to this company and what it can afford. [State the obvious/fact] This is because an 8% declared rate exceeds the 6% supportable rate for inforce business and the 4% supportable bonus rate for new business.
* If we declare the high levels of bonus as in the past it will continue to use up policyholder retained earnings until they are exhausted and there would be no buffer left for dealing with future variations in experience and to finance new business.
* Maintaining these high unsustainable declared bonus rates will increase the Solvency Requirement, as the Solvency Liability, MTV and CTV will increase (due to reversionary bonus). This could lead ultimately to the company not being able to satisfy solvency as the Solvency Requirement becomes greater than the total assets.
* Maintaining high declared bonus rates will not impact the total Policy liabilities as there is just a transfer of declared bonuses from policyholder retained earnings to the policy liability.
* There are **issues of equity** between existing policyholders and new policyholders because continuing to declare high levels of bonus for new business will use up part of the retained earnings that have been built up by existing policyholders.
* The company will ultimately need to declare lower bonus rates that are supportable. As policyholders prefer stable and smooth bonus rates, this will cause dissatisfaction, leading to potentially high surrenders. This along with lower sales from uncompetitive bonus rates, will reduce the amount of business on the books and thus future profits.
* The longer the delay in cutting bonus rates, the bigger the adjustment will be required to bonus rates as continuing to eat into retained profits will make the supportable bonus rate even lower than 6% for inforce business. The consequences for the business will be even greater.

d) *i. Description of Method*

The method to use is based on separate supportable bonus rates for inforce and new business with 3 distinct rates for new business according to the premium rate (which the administration system can handle).

**Inforce:**

7% this year, then 6% for next year. Gradually drops the declared rate to the supportable bonus rate of 6%.

**New Business:**

Different declared bonus rates depending on the premium rate.

The declared bonus rate for each premium rate is the supportable bonus rate that the premium and investment strategy can support using best estimate assumptions.

Declared bonus rates by premium rates are:

|  |  |
| --- | --- |
| Premium Rate Series | Declared Bonus Rate |
| Standard (current premium rates) | 4% |
| Silver (between current and high premium rates) | 6% |
| Gold (high premium rate) | 8% |

*ii. My recommended method is appropriate because*

**Declared rates are supportable:**

* Resets the declared rate for the inforce to one that is supportable in one year’s time.
* Sets new policyholder expectations from the start of the policy, that a supportable rate will be based on the chosen premium rate.

**More equitable between inforce and new business:**

* As new business funds its supportable bonus rates from its own premium, there is less chance that new business will use up the retained earnings that belongs to the inforce business.

**Reduces surrender risk:**

* Reducing the declared rate by 1% in the first year (from the previous declared rate of 8% to 7%) and then reducing it to the supportable 6% bonus rate after that, is a small gradual drop that may reduce surrenders on inforce policies. This is a better alternative than dropping it by 2% immediately to the 6% supportable rate.

**Rates are Competitive:**

* A new business declared rate of 4% based on the standard premium will be competitive in the near future, as the 8% declared rate offered by competitors is not sustainable and must come down to 4% (assumes all companies are the same in terms of investment strategy and pricing assumptions).
* Although a higher premium is charged, a new business declared rate of 8% attempts to maintain the competiveness of the company.

**Different Affordable Rates:**

* Offering different premium rates with different declared rates, allows new policyholders to select the premium rate they can afford.

*iii. Other strategies that should be adopted to complement my recommended method are those that help reduce surrender risk and maintain new business sales.*

These include:

* Increasing Commission:
  + Provides incentives for agents to keep business on the books by increasing renewal commission. The declared bonus rates would need to reduce due to the fall in the supportable bonus rate.
  + Encourages agents to sell new business by increasing initial commission. The declared bonus rates would need to reduce due to the fall in the supportable bonus rate.
* Introducing a Terminal Bonus:
  + Introduce a terminal bonus based on date of entry of this policy. This is a new and innovative product feature which would distinguish this company from other life companies. This could help reduce surrenders and may be attractive to new policyholders. In addition it would help address equity issues between different cohorts of policies (including inforce and new business).
* Communication:

An effective communication strategy with policyholders outlining:

* + Disadvantages of policyholders surrendering their policies due to the surrender penalties.
  + The high declared bonus rates offered by competitors are not sustainable and therefore must reduce in the near future. Contrast this with the company’s prudent financial management and financial security as a key selling point.