**2019 S1**

**Q1** a) Previous arrangement may be still effect. If the new arrangement is effective to replace the old one, EZLIFE may need to pay back the unearned commission to reinsurer.

The reinsurer would require a one-off repayment from EZLIFE because:

* Given the relatively high reinsurance commissions, the reinsurer would have accumulated a relatively large deferred acquisition costs (DAC) over the years in respect of EZLIFE’s business.
* The new reinsurance terms significantly reduces the premiums that the reinsurer will receive in the future, in respect of all remaining business in-force as at 30 June 2019. This **significantly reduces the reinsurer’s ability to recoup the DAC**, therefore the one-off repayment is expected to be largely used to compensate the reinsurer in regards to recouping DAC and reduced future profits on the in-force business.

1b) *To: Board of EZLIFE*

*From: AA*

*Memo: Recommendation on projection method to be used in policy liabilities valuation.*

EZLIFE currently adopts an accumulation basis for policy liability valuation. Given the change to the reinsurance terms applicable to the business from 1 July 2019 onwards, I would like to recommend EZLIFE to adopt a projection basis for policy liability valuation.

i. *A projection basis would be more appropriate for the business from 1 July 2019 onwards because:*

The business volume under our management will increase significantly due to the reduction in the quota share reinsurance basis. Therefore the result from the accumulation method may now be materially different from the projection method.

Also, the accumulation method is only used when the upfront cost is immaterial. However, in the new reinsurance arrangement, we no longer receive initial reinsurance commission to help us cover the large upfront cost.

Projection method is also more accurate for the long duration business. Our portfolio is mainly composed of LS risk whose duration could be extremely long.

* An accumulation basis is appropriate and allowed for under LPS 340, where it is not expected to produce materially different policy liability results compared to the projection basis.
* Under the new reinsurance terms however, the upfront reinsurance commissions will be significantly reduced, that is, the large upfront adviser commissions will mostly be borne by EZLIFE. This **large upfront acquisition cost** would need to be deferred over the relatively **long expected duration of liabilities** of the retail lump sum risk business.
* The larger the upfront acquisition cost borne by EZLIFE, and the longer the expected duration of the liabilities, the more likely it becomes for the accumulation basis to produce materially different policy liability results compared to the projection basis.

ii. *It should be noted that there may be* ***potential implications of this methodology change on the recognition pattern of expected future profits*** *for the business because:*

the expected future profit will not be significantly different from the current prediction for the following reasons:

* the large upfront cost will be treated as DAC and will be released over the time.
* The profitability of the underlying business is not affected by the valuation method.

But the future profit will be more sensitive to the lapse experience as the DAC cannot be recovered if policyholders lapse especially in the early period of their policies.

* Under the accumulation basis, an “**acquisition expense recovery carrier**” is used to run off the acquisition expense for the business. This carrier is generally the expected premium (representing how the acquisition expenses are recouped). Profit is implicitly **recognised via this “acquisition expense recovery carrier”.**
* Under the projection basis, profit is explicitly recognised via a “**profit carrier**”, chosen such that profit is **recognised as services are provided to policyholders**. In the case of EZLIFE’s retail risk business, the expected claims are generally the services provided to policyholders. Therefore if EZLIFE choose to adopt expected claims as the profit carrier, then there can be changes in the profit recognition pattern.
* In the case where the expected premiums run off in a similar pattern to expected claims, the expected premiums can be used as the profit carrier. In such a case, the recognition pattern of expected future profits for the business under an accumulation basis and under a projection basis is expected to be more closely aligned.
* However I would like to highlight that this methodology change by itself would not change the overall expected profitability of EZLIFE’s business (just the recognition pattern).

iii. *Adopting the projection basis could bring about operational benefits to the business, such as:*

After shift to the projection method, we may be able to enjoy the following operation benefits:

* We do not need to determine the UPR for each period, which save some time and staffing cost
* Proprietary projection models can be used rather than spreadsheet (which is typically used for accumulation method). As a result, errors are easier to be detected and also easier for version control.
* There can be operational efficiencies given that projections of expected cash flows are likely already required for analysis of profit and liability adequacy tests (used to test for loss recognition under the accumulation method).
* Policy liability valuation on a projection basis gives better alignment with projections required for capital calculations, budgeting, and Embedded Value calculations. This alignment helps for **better understanding of the results**.
* Profit margin percentages are explicitly determined under the projection basis, which allows for better understanding of the profitability of the portfolio and better communication of any changes in the profitability.

1c) see spreadsheet. *APPLY decrements to Premium / Claims / Sum-insured / Per Policy Expense!*

1d) i. The profitability has dropped more after new reinsurance term due to the lower portion of business being reinsured (*less insurance risk borne by EZLIFE*), hence it will be more volatile under each sensitivities.

* The level of overall profitability of the business is expected to increase i.e. from an expected profit margin of 11.8% to 13.6%.
* These results are expected due to shifting back a relatively large portion of insurance risk from the reinsurer to EZLIFE under the new reinsurance terms. The higher the insurance risk borne by EZLIFE, the higher the expected profit volatility, and the higher the expected level of profitability.
* It is noted however that the overall increase in level of profitability is greatly offset by the large repayment to the reinsurer on 1 July 2019.

ii. VIF: VIF will increase as the less distributable profit is shared with reinsurer.

ANW: it may decrease as the increasing volume business will result in a higher capital requirement.

Overall, the EV is likely to increase as the increase in VIF will be more than the decrease in ANW given the capital requirement is only a small percentage of the increasing business.

Arguments for rapid growth:

Increasing value in VIF can lead to higher return on equity. It also reduces the random risk and therefore increases ANW. EV will increase further with the rapid growth.

Arguments for expansion into other life insurance product: Diversification benefit.

The expected impact of the new reinsurance terms on the Embedded Value of the business is:

* The increased claims risks would likely mean higher regulatory capital requirements, if the Insurance Risk Charge was positive (or turned positive under the new reinsurance terms). This means Adjusted Net Worth reduces, so the Embedded Value reduces due to discounting effects on the capital release.
* **Shareholders would likely require higher cost of capital due to the higher profit volatility. This translates to a higher risk discount rate, reducing the Embedded Value.**
* The increase in shareholder profit margins translates to an increase in the Embedded Value.

Arguments that can be put forward to the shareholders are:

* Expansion into other life insurance products (e.g. retail disability income, group insurance, life investment business) can help diversify the sources of EZLIFE’s profit. In other words, it reduces the risk of concentrating EZLIFE’s portfolio in just the retail lump sum industry and the industry-wide risks associated with it.
* In particular, EZLIFE could use the additional capital to expand to sell lifetime **annuity** products. The longevity risks on these products would act as a **natural hedge** against the mortality risks on the existing retail Death products. This would help reduce the claims risk for EZLIFE’s business as a whole, i.e. reduce the risk of profit volatility borne by the shareholders.
* EZLIFE could use the additional capital to rapidly grow the retail lump sum risk business, but with level premium structure. The high upfront acquisition costs are recouped faster for level premium policies, hence lower lapse risk than the existing stepped premium business (at earlier policy durations). This would help reduce the lapse risk for EZLIFE’s business as a whole, i.e. reduce the risk of profit volatility borne by the shareholders.

iii. *In regards to EZLIFE’s approach of applying lapse rate assumptions:*

* The approach for adopting assumptions **should not impact on the actual volatility of the profit** (**which is mainly driven by the risk borne** by EZLIFE).
* It however impacts on the volatility of the lapse experience profit monitored from month to month(as part of analyses of profit), to the extent that EZLIFE’s actual lapse experience differs from the assumptions, in particular:
  + The industry lapse rate assumptions may not be relevant to EZLIFE’s lapse experience, due to possible factors such as different target markets and different distribution methods.
  + Applying a single lapse rate across the portfolio may not be appropriate, **as lapses at earlier policy durations are more likely to result in a lapse loss** for EZLIFE than lapses at later policy durations (i.e. the large acquisition cost may not be fully recouped for lapses at earlier policy durations).
  + The assumption of increasing the policy duration by one year for each projection year effectively assumes uniform lapses across the portfolio, which may not be reflective of EZLIFE’s experience.

**Q2** a) *To: CFO*

*From: Valuation Actuary*

*Memo: Valuation for the new product TermLife*

*Dear CFO,*

As for the launch of the new product TermLife, I would like to address some of the concerns you may have for this new product.

You have recently enquired as to how the policy liability and the capital requirements of the proposed TermLife product will be determined and what, if any, differences there may be with the approach for the current YRT business.

**Related Product Group**

TermLife can be included in the same RPG as existing YRT business, given the fact that they have similar benefit characteristics.

However, the pricing structure is not same. YRT’s premium is yearly renewable while TermLife has a guaranteed premium for the 1st 10 years with a fixed 15-year term.

TermLife is introduced as a replacement of the previous YRT product. We may want to put it into a separate RPG to monitor its experience alone. As loss recognition test can only be done on RPG level.

The existing YRT business is in a single Related Product Group (“RPG”) where premiums are the profit carrier. This means that we expect to release profits on this business in line with when we expect the premiums to be paid.

There are a number of considerations in determining whether the TermLife product will be part of the existing YRT RPG or whether a new RPG will be required:

* An RPG is a grouping of products where the products are considered to exhibit benefit characteristics and pricing structures that are sufficiently similar.
* **The size of the business**. For small blocks of business, it is reasonable to group the business with similar business for profit margin and loss recognition reporting. This is **to avoid having volatility** in the results from entering and reversing loss recognition as a result of small volumes. Hence, initially, it may be a consideration to include TermLife in the same RPG as the existing YRT business. However, when volumes become more material, we will need to consider whether a separate RPG is required.
* RPGs are a group of products where the benefit characteristics and the pricing structures are sufficiently similar that they can be grouped together for profit reporting and loss recognition purposes. Comparing TermLife and the YRT business:
  + The premium structures are different – the YRT has stepped rates that can be changed by the insurer. On the other hand, TermLife’s premiums are level and cannot be altered by the insurer. This indicates that the products are sufficiently different to warrant TermLife to have its own RPG
  + **On the TermLife business, the policy term is longer than the premium paying term**. For the YRT business, these terms are equal. **If we were to choose premium as the profit carrier for the TermLife business, we would release all of the profit prior to the expiry of the contract.** Hence, we would still be providing a service but not recognising any profits for that service. This would not meet the principles of LPS 340. **As a result, claims would be a more suitable profit carrier as claims will be paid for the entire term of the policy. Products with different profit carriers need to be in different RPGs.**

**IBNR and RBNA**

Claims reserves shall be carried on from the previous period. There is no need to check whether policy is renewed or not to decide whether continue holding claim reserves since TermLife has longer term (15 years).

* There is not expected to be a material difference in how the IBNR and RBNA are determined compared to the existing YRT business. **The IBNR will still be determined based on the average delay until claim notification and the RBNA will be based on an assumed decline rate.**
* There may be some differences in the underlying parameters such as the claim delay or decline rate. These will be sourced from the Experience Studies as they are performed each year.

**APL and IRC**

As for the drivers of APL, TermLife will have a larger termination value (i.e. claim reserves). Hence the APL for TermLife will be higher than YRT, if they are both profitable with a negative BEL.

For the same reason, TermLife will have a larger stressed impact on claim reserves, which will lead to a higher stressed PL and IRC in the end.

The table below sets out the differences in the Adjusted Policy Liability (“APL”) and the Insurance Risk Charge (“IRC”) assuming the TermLife product is written into a separate Statutory Fund (“SF3”):

|  |  |  |
| --- | --- | --- |
|  | **Existing Product** | **Proposed Product** |
| **APL = max(BETV, RFBEL)** | **APL = BETV all the time:**  Assuming the business is profitable whereby future premiums exceed outgo, the APL will be based on the Best Estimate Termination Value (“BETV”) which will be made up of the IBNR and RBNA. | **APL = BETV first, then RFBEL:**  Initially the APL will be based on the BETV as premiums will exceed claims. However, over the life of the contract, the BEL will become positive (as claims exceed premiums given premiums are flat) and will exceed the BETV (IBNR will be small given short delays and RBNA may also be small given relatively quick processing times |
| **IRC** | The IRC for the YRT business is driven by the time it would take the company to re-price in the event of adverse experience. The timing and the amount of the premium increase will drive the capital requirements of the product. Depending on the size of the assumed adverse experience relative to the existing profit margin, the IRC may be zero. | There are some key differences in determining the IRC for TermLife compared with the YRT business. As premium rates are guaranteed, the company cannot re-price to offset the adverse experience. However, as the reinsurance premiums are on a risk premium basis, the reinsurer can re-price. Over the life of the contract, the IRC would be expected to grow as the margin of premiums over claims reduces (and goes negative) as the term of the policy unwinds. |

2b) i. **Asset Risk Charge**

The value of the cash is not affected by the interest movement.

But the termination value (claim reserves) will change as the interest rate moves.

This asset liability duration mis-match will cause severe ARC for TermLife.

Assets:

* On the asset side, minimal interest rate risk as cash is at call (duration is low). Hence, under the asset stresses, value of assets would not change materially – hence, ARC will be driven by the liability change.

Liabilities:

* **[initially the APL has a short duration]** Initially, APL will have a very short duration assuming that the BETV bites over the RFBEL and therefore ARC will not be significantly impacted by changes in interest rates. The **RBNA is not impacted since just based on current sum insured and a decline rate** (no discounting) and **the IBNR would likely have a short duration given claims are notified relatively quickly for death (so limited impact on IBNR of interest rate change).**
* Over the life of the policy, the APL will switch from being on a BETV basis to being on a RFBEL basis. *(conclusion from 2a above)*
* **[Duration would be longer under the RFBEL basis and therefore the ARC would be more sensitive to interest rate changes] RFBEL would have longer duration than the TV. Hence, ARC would be driven by interest rate reductions (RFBEL increases with limited change in asset values).**

**Duration Matching**

* Accounting (profit) mismatch with capital will be greatest at the start of the contract when the BETV bites. In this scenario, **changes in interest rates (up or down) may have limited impact on capital position (as duration matched)** but a large impact on profit (driven by the BEL and value of profit margins). The direction of stress will also be different – interest rate reduction will increase the APL but reduce the PL (as PL is negative at the start of the contract).
* Over the life of the contract, the APL and PL should move in the same direction following an interest rate stress as PL and APL are both positive with RFBEL being the APL.
* **The magnitude would be expected to be larger on PL as value of profit margins also impacted – these are not included in the APL.**

ii. For mortality, the risk that TermLife is exposed to is similar to YRT.

For lapse risk, TermLife has less exposure as being with the shorter premium paying term and the guaranteed feature, the premium is higher than YRT for early periods. Therefore there is less initial upfront cost to be recovered. And in later year, if the guaranteed premium is less than the actual cost, more lapse could even generate benefits for the company. However, the lower lapse risk could be significant if the product is underpriced.

*Management actions:*

Although premium is guaranteed, the sum-insured in later period (say after 10 years premium paying period) could be adjusted according to the experience.

Increase the quota share in the TermLife reinsurance agreement to reduce the risk exposure.

* The CRO is correct in that the proposed TermLife product is also exposed to deteriorations in the lapse and claims experience. Over the life policy, if experience deteriorated, **any strengthening of assumptions would be spread through future profit margins (where they existed). This is similar to the current YRT product.**
* However, the implications of the risks are different as the premium rates are guaranteed. In particular:
  + - **As we cannot re-price, we cannot offset the stronger assumptions with assumed re-pricing. This will affect the calculation of the IRC, as re-pricing is not an available management action.**
    - However, the reinsurer can increase the premium rates they charge us and this would also impact the value of future profit margins.
* As a result of this dynamic, there are some actions the company could take to mitigate against the impact of this outcome. These include:
  + - **Cease writing new business or increase premium rates for new business** – both of these points would ensure that losses do not continue to grow.
    - **Retention strategies for existing business** (e.g. customer engagement) to reduce deterioration of lapse experience.
    - For new business, **negotiate different reinsurance terms with the same or a different reinsurer.** This could include getting the reinsurer to guarantee their premium rates.

2c) i. Select several model points to represent existing business mix. Use there model points to project the future policy liability.

**PL:**

* **Incurred claim reserves** – should be available based on the premium and claim data in the General Ledger, admin systems and claim systems. Underlying assumptions could be based off pricing (or their existing product if experience expected to be materially the same)
* **UPR** – assuming premiums paid monthly, take a half month of premium based on the GL data
* **DAC** – based on initial expenses and commission as per the GL amortized in line with expected levels (as per pricing assumptions) since lapse experience has been in line with expected
* All of the above done gross, reinsured and net based on the reinsurance treaty which TermLife is covered by
* LAT – Given no valuation model, cannot determine a BEL from the existing process. As assumptions for the BEL would likely to be based on pricing could take the following: Actual Premium \* Expected BEL (time t from pricing) / Expected premium (time t from pricing). This is then compared with the UPR less DAC. This is done net of reinsurance

**Adjusted Policy Liability:**

* This will be based on the incurred claim reserves that were determined as part of the policy liability calculation

ii. **IRC:**

* Could derive the value of year 1 profits from the BEL determination above and apply the stresses to this BEL. An alternative would look at the original pricing to see if there was an IRC in year 1 – for example, using the expected loss ratios and expense ratios in year 1, determine a stressed profit in year 1 using the actual volumes.
* Stresses on BETV can be applied (random and future) without much difficulty by scaling up the BETV by the size of the stress (as would be the case with the existing YRT business)

**ARC:**

* Asset data should be available from custodian – it should be possible to apply the asset shocks to these. We would also apply credit rate stress to the investment assets and default stress to any reinsurance asset and premium receivable. This relies on the asset data having the required inputs (duration, fair value, credit rating) in order to determine these amounts
* **On the liability side, only the interest rate and inflation rate stresses apply** – likely to be immaterial given short term of the liability. Could approximate by: IBNR \* Interest Rate Change \* Average Claim Delay

**ORC:**

* Follows formula as per LPS 118 so would use premium and APL data as already available from the General Ledger.

iii. Restate the profit if the difference is material.

Or set up a reserve for the difference and release them throughout the life of the TermLife.

* The approach taken to the difference between the valuation model and approximate approach will depend on current practice with respect to model/data changes. Hence, depending on policies and past practices, **could spread the BEL impact through margins (if available) or put through the P&L**
* Depending on materiality, **approach may warrant auditor engagement** and reconciliations as to the drivers of the differences

**Q3** a) i. EV and reported profit are both for the Board.

EV provides a broader view for the business since it takes capital into consideration. For the business planning, capital implication is extremely vital as it determines the distributable profits and hence the value of the company to the shareholder.

Reported profit is:

* an accounting profit for statutory reporting purposes
* for e.g. regulatory bodies, auditors, and financial analysts

Embedded Value:

* is a measure of the worth of the business
* is for shareholders, i.e. in EVLIFE’s case this is EVBANK

One advantage of using Embedded Value over reported profit in business planning purposes is:

* Embedded Value aligns the company’s plans and operations with shareholder’s objectives, as it reflects shareholder cost of capital and the profits distributable to shareholders.

ii. The expected return in EV also includes the release of capital and the investment income on the capital held.

*Comparing “Expected return” under Table 1 and “Planned profit margins (including expected investment return)” under Table 2:*

* Both items represent the unwinding of discount rates, but the discount rates differ in that **Table 2 uses the risk-free discount rate, while Table 1 uses a higher risk discount rate** (reflecting EVBANK’s cost of capital and view of the risk of the business).
* “Expected return” includes “Planned profit margins (including expected investment return)”, in addition to expected release of capital (which form part of distributable profits).

EV’s non-economic assumption can be different from MoS BE basis. For example the expense assumption under EV may consider the future efficiency improvement. Such change will not be reflected in the reported profit basis.

*Considering why “Assumption changes – Non-economic” appears in the Embedded Value Analysis of Change report of Table 1 and not in the Analysis of Reported Profit of Table 2:*

* Under Table 1: **The impact of assumption changes are always capitalised immediately.** The strengthening of lapse assumptions has immediately reduced the Embedded Value.
* Under Table 2: **The impact of assumption changes are spread over future profit margins** (i.e. it does not impact on the reported profit for 2018, as per APRA LPS340), as it has not resulted in the business going into loss recognition. If loss recognition did occur then the capitalised expected future losses would appear in the “Capitalised losses or reversals” item.

3b) The 2 main components of VIF: the profit from running the business and the profit from the release of capital ~~supporting the business~~.

For the profit from running the business:

* Increase due to the rapid growth
* Decrease due to the worse lapse experience

For the profit from the capital supporting the business:

* Investment income part will increase due to the rapid growth as more capital is required to hold.
* Decrease as less capital will be released.
* Increasing ORC

*To: CFO*

*From: Valuation Actuary*

I refer to your question on how the VIF is expected to change over time.

*The VIF is comprised of two main components:*

* PV of expected future profits (including investment return on assets)
* PV of expected future capital releases.

Together, these form the PV of future distributions to shareholders of profits and capital, in respect of the in-force business. Generally the **VIF will reduce as profits emerge and capital is released.**

*Two factors that will affect the change in VIF over time of EVLIFE are the rapid growth in new business and the deterioration in lapses, which are outlined below.*

Lapse experience continues to deteriorate:

The present value of expected future profits is expected to change as follows over time:

* If lapse experience continues to deteriorate, the overall profitability would reduce if further strengthening of the lapse assumptions is required.
  + The reduction can be significant, **as lapse experience is generally a key driver of profitability for stepped-premium YRT business with high acquisition costs** (as the acquisition costs are deferred and recouped from premiums received over a number of years after policy commencement).

The present value of expected future capital release is expected to change as follows over time:

* If the lapse assumption increases then the **release of regulatory capital will occur at a faster rate**. However **the benefit of this to the VIF will be more than offset by the reduction in the PV of expected future profits**.
* The residual uncertainties following the lapse assumption change may lead to the **lapse stress being increased resulting in an increase to the IRC**.
* **The reduction in volume due to higher lapses may result in the ORC being reduced**.

Rapid Growth in New Business:

The present value of expected future profits is expected to change as follows over time:

* As the level of sales grows increases, the PV of expected profits will increase, as long as the new business has positive profit margins (i.e. EVLIFE is not making losses on new business). This increase in PV of expected profits will be offset by the release of profits from the in-force business.

The present value of expected future capital releases represents the overall amount of capital required on the business (allowing for discounting effects). This is expected to change as follows over time:

* Capital required for new sales is high due to the need to fund the large acquisition costs in addition to the capital needed to satisfy regulatory requirements. With rapid sales growth this could quickly exceed the release of capital from the current business, causing the PV of expected future capital releases to increase.
* Increase due to further increases in the Operational Risk Charge (ORC) due to the rapid growth. The ORC is the component of the regulatory capital requirement (as per APRA standards) which cover operational risks, and as per APRA standards, the level of ORC is driven by growth rate of the business.
* **If the new business being sold is sufficiently profitable, then this may cause a reduction in the Insurance Risk Charge (IRC).**

3c) i. EV may become more stable as the sum insured can fluctuate due to several policies with large SI.

~~PCR will increase more slowly compared to the sum-insured in the future, given the fact that the increasing volume of the business will result in less random risk in insurance charge. Smaller target surplus will increase the ANW.~~

*The potential impacts on the pattern of target surplus release over the life of the in-force business are as follows:*

• For stepped-premium YRT business, **the claims risk is likely to increase over time, due to reasons such as aging of policyholders, and affordability issues hence policyholders staying in-force are more likely to be those who are likely to claim.**

• Furthermore, the **CICP** **has a longer duration than the annual sum insured**, as claims can continue past the premium term of the policy, and therefore may **have a slower run-off pattern compared to sum insured.**

• The combination of the above factors means that the **PCA (which is driven by the claim risk and CICP) is likely to have a slower run-off than the annual sum insured in-force.**

• The change in methodology will therefore likely **lead to a slower release of Target Surplus** and as such, **the Embedded Value is expected to reduce under the new methodology** **due to the higher cost of capital.**

ii. **Scenario 1**: ARC. ARC increase and hence a lower EV.

The likely drivers are:

* Increase in investment assumption due to higher expected investment return on assets. This increases the Embedded Value.
* Increase in capital requirements due to greater asset liability mismatch in respect of the disabled lives reserves. This reduces the Embedded Value (due to reduced ANW and discounting effect).

(Note: The risk discount rate is unlikely to change for a change in investment policy on just the disabled lives reserve. The risk discount rate represents the risk of the entire business.)

**Scenario 2:** Lapse up. Lower profit as more DAC cannot be recovered. The impact on EV is determined by offsetting relationship between the increasing premium and the increasing uncovered DAC.

The likely drivers are:

* Increased premium income. This increases the Embedded Value.
* Shock lapses (and selective lapsation) due to increase in premium rates. This reduces the Embedded Value.

**Scenario 3**: operational risk charge. Less ANW, less EV.

The likely drivers are:

* Allowance for the impact on unit costs due to out-sourcing. This may include short-term redundancy costs (reduces Embedded Value), or **long-term expense savings** (increases Embedded Value).
* **Termination rates may improve under a specialist provider reducing claims costs** (increases Embedded Value).
* Increase in operational (or reputational) risks associated with out-sourcing, resulting in higher capital requirements (including target surplus). This reduces Embedded Value (due to reduced ANW and discounting effect).

3d) i. Franking credit:

As one is owned by overseas bank while the other is owned by Australian bank.

Incidence assumption;

Due to being under reputational issues, the ALIFE may accept more claims than usual practice.

RDR:

The risk frameworks of 2 companies are different and shareholders may have different view on the risk and the associated return.

*Three key adjustments are:*

* Remove franking credits, as this is not applicable to the sole shareholder of EVLIFE (EVBANK), which is an overseas bank.
* Adjust for the capital required (including target surplus) on the business to reflect EVBANK’s view of the risks of the business (e.g. EVLIFE may consider increasing the capital held in relation to operational risks, in light of the recent reputational issues).
* Adjust for unit cost levels. EVLIFE may have higher unit costs than ALIFE, due to economies of scale available to a large life insurer which may not be available to EVLIFE.

ii. More capital is required to support the business.

This can be possible due to the higher discount rate applied on Embedded Value as compared to valuation (perhaps reflecting the higher operational risks in light of the recent reputational issues).

What this means for ALIFE is that the new business on this portfolio no longer satisfies cost of capital required by ALIFE’s shareholders and ALIFE may consider closing the portfolio to new business.