**2007 S2**

**1. New System merge/migration**

1a. Things/information to consider/obtain before merge/migration:

1) FCR: to obtain data, assumptions and method;

2) new system specification: indicate any system diff.;

3) AV/**EV** report: understanding of input/output;

4) scheme/legal doc governing the merger: establish protection of par policies (guarantees).

1b. Checks on policy data & new system output

1c. MoS **PL** Calculation [main steps]

1d. Potential issues from merger: profit carrier / loss recognition / P/h’s reasonable expectation

**2. Related Product Group [e.g. Lump Sum v.s DI]**

2a. Meaning of RGP & potential RGP for retail risk insurance [e.g. stepped prem v.s level prem, lump sum benefit v.s income benefit]

2b. [LS] Reasons of reduction in PV of Future Profit Margins (PVFPM): shock lapse / run-off / NB loss

2c. [LS] from 2b, Effect on MoS profit and **AV**:

*Run-off of existing business does* ***not*** *have an impact on MoS profit & AV as this was ‘expected’.*

2d. [DI] Reasons of increase in PVFPM.

2e. [DI] from 2d, Effect on MoS profit and **AV**: *loss reversal will generate a MoS profit in 2006*

**3. A new large [Group] contract**

3a. **PL** components under the **accumulation** **method**

3d. **Mitigate new contract risk**: short-term premium guarantee/ reinsurance / (mthly) monitoring

**4. [Investment Linked Contracts]**

4a. Analysis of profit (step by step)

4b. Cause & Effect on budget: Cause is recurring? Yes, then adjust the model.

4c. Reconcile two estimates from different sources (budgeting model v.s accountant)

**5. Acquire foreign companies**

5a. Adjustments to AV method*: cost of capital (cost arises because the capital earns the fund earnings rate while the earnings and release of this capital are discounted at RDR)*

5b. Assumptions expect to change to reflect the new ownership: tax / expense / NB / lapse

5c. Impact on AV calculation from reprice of an asset / higher acquisition cost / loss of agent

**6.** **Transition on reporting basis [Investment Linked Contracts] & [Term Life]**

6a. [AIFRS] cause of policy liability variations: fund earnings rate ==> risk-free rate

6b. Changes of AIFRS would seem likely to increase the variability in reported profits.

*Restriction on DAC (similar to IFRS 17) ==> lower profit*

6c. Adv & Disadv of reinsurance: reduce capital / underwriting help / reinsurer and admin cost

6d. Perspectives on reinsurance proposal [**AA** / Auditor / Independent Director]

**2008 S2**

**1. Accumulation method & [GSC]**

1a. BE assumption used in accumulation method for: *LRT / determine IBNR, RBNA, termination rate*

1b. Impact on profit from IBNR mis-estimation: *timing / no impact on total profit*

1c. Cause/possible checks/investigations on UPR discrepancy

*Cause: error / correction of error / a large block of business written*

*Checks/Investigations: review UPR calc / data accuracy / confirm historic error recognised*

1d. Impact on **[GSC]** reserve/profit from “longer benefit period” & “recession”.

**2. [Investment Linked]**

2a. Life insurance accounting standard AASB 1038: why investment contract liability on the BS.

2b. Delay in reprice of an underlying asset (illiquid)

*Consider: appropriateness of valuation / adjustment / unit price distortion / set provision*

2c. **Floor guarantees** affect P&L statement: *opt-in fee / cost of admin & hedge / policy liability*

2d. Issues to be considered b4 entering into a hedging contract: *term & conditions / large exposure …*

**3. Dividend rate**

3a. Initial commission↑, impact on profit, profitability & capital:

discussion on loss recognition / deferral & amortization: reduction in future reported profits

3b. **AA** to consider before increase dividend:

financial stability / **Investment Fluctuation Reserves** / mgmt action / p/h’s expectation / **equity**

3c. Retention Strategy when dividend rate is low

**4. Consideration regarding VNB / VIF and distribution channel**

4a. **AA** to consider when setting BE assumption: review pricing basis & emerging exp./reinsurer exp.

4b. Impact on **VNB**: i. additions to benefit design w/o change in premiums; ii. shift to level comm

4c. Impact on **VNB** and **VIF**: change of distribution channel:

volume / growth / relative cost / shift in product suite / shock lapse / on-going lapse

**5. Capital**

5a. Why capital requirement is different between Life and Investment Linked?

5b. Fall below target surplus:

* *Not necessarily need to restore capital position immediately when breached the Target Surplus.*
* *The intention of Target Surplus is to reduce the probability of breaching capital requirements to a level acceptable to the Board*

**5c. Reactions (*new cap / increase premium / close NB*) to capital deterioration and impacts thereof**

5d. **AA**’s advice on reduced Target Surplus level: higher probability of breach / management action

**6. [Annuity] long term liability – tail risk**

6a. Potential reasons that corporate bonds report an investment loss: *credit spread increase / default*

6b. Product grouping criteria (for the purposes of profit margin calc, loss recognition or reporting)

6c. **[Annuity]** **Analysis of Profit when mortality is lower than expected**

6d. Considerations before recapturing from the reinsurer **[Annuity]** liabilities beyond 20 yrs’ duration

*Price that reinsurer will pay / sufficient capital / mismatch risk / increased profit volatility / pricing*

**2009 S2**

**1. Non life insurance company, e.g. trust management company**

1a. Principles of how PL is determined for investment linked business (P26)

1d. i. Profit reporting under non Life company: same profit emergence / P&L: fees less expenses

ii. Things to consider in determining **Capital** for non-Life company: *time horizon / pr. of ruin / CoC*

**2.**

2b. **[IA]** & **[Par]** Interest, lapse, mortality impact on PL / retained profit / capital / termination value

2c. Reduce crediting rate to increase retain profits, in order to release s/h capital. [**AA**’s role down]

**3. EV**

3a. **Reasons for EV movement analysis**: *understanding/check result/assumption review/mgmt action*

3b. **EV** analysis:

i) Why **EV** is different from profit analysis: *future vs current /* ***EV includes*** *capital release*

ii) Why mortality experience is poor but assumption is improved: *random / few large claims etc.*

iii) Asset mix change towards high yield:

*lower* ***EV*** *as higher required capital & higher discount rate / higher EV as return increases*

3c. **VNB** estimation: *run 1st half-year NB data separately using end of year assumptions. The 2nd half-year value of NB can be found by subtraction, or by detailed calculations.*

3d. **AV**: factors to consider when market will grow in size: expense / NB / lapse / discount rate

**4. [Group Disability]**

4a. Steps to calculate **Actual** claims loss ratio

*= (actual claim payment + IBNR + RBNA + CICP) / (premiums received - increase in UPR) @ val date*

4b. Extra steps to calculate **Best** **estimate** claims loss ratio: *longer investigation period / trends*

4c. Information required to calculate Deficiency reserve

4d. Smooth the profits for Group Disability: *combined within RPG / reinsurance / use profit margin*

**5. Pandemic**

5a. How FCR shows the impact of the pandemic: *PL / profit / EV / pricing / solvency / target surplus / operational risk (staffs are all sick) / adequacy of reinsurance*

5b. Calculate new future profit when BE and Economic assumptions have been changed

5c. Worse experience but higher planned profit, what to do? 🡺 *choice of profit carrier / one-off claim*

**6. MCEV / EV => always aim at having higher EV**

6a. **EV** v.s MCEV: methodology

6b. Roll-forward MCEV by 1 year: *new VIF = VIF\*(1+RFR) – profit / new ANW = ANW\*(1+RFR) + profit*

6c. **EV** v.s MCEV: for **[Par]** / **[Investment-linked]** / **[Term]**

6d. Actions/changes if transfer to MCEV from **EV**: pricing / sales focus: commission / asset mix

**2010 S2**

**1. Business Plan / Profit**

1a. Information to obtain for constructing the **business plan**

1b. **Profit** calculation: *Interest on surplus & IBNR + release of profit margin on inforce block & NB*

1c. Why **Profit** does not increase much in response to an increase in NB

1d. **AV** v.s IFRS Profit

**2. Analysis of Profit**

2a. **Reasons of performing analysis of Profit:** *understanding/check result/assumption review/required*

2b. Commentary on morbidity and lapse experience profit

2c. Reasons for prem experience (*grace period, reduced SI*) and unexplained profits (errors, missing items)

2d. Possible reasons that why AOP lapse experience is different from Exiting report lapse:

*one based on PL, the other based on policy count / different definition: reinstatement / errors*

2e. Reasons for decreasing number of claimants but with morbidity loss:

*avg claim size / longer claim duration / errors / definition: whether include RBNA, increase in IBNR*

**3. Participating Business**

3a. Areas need to be investigated when operating in overseas jurisdictions

3b. Characteristics (including benefits and limitations) of MoS method

3c. Disadv of asset valuation using market value

3d. i. Principles for the establishment of a **bonus** **policy** (similar to Assignment)

*equitable distribution / solvency / reasonable expectation / ease of understanding / competitors*

ii. Adv & Disadv & Further consequences of maintaining constant bonus levels for the first 5 years

*anti-selection / easily copied by competitors / capital / investment policy needs to be adjusted*

**4. Investment-linked**

4a. i. Relevant accounting and actuarial standard for calculating investment-link policy liabilities

ii. No insurance risk, no discretionary participating feature ==> investment product

4b. Calculate PL = LICL + MSE = premium + investment return – fees – DAC

4c. Steps to perform **stochastic** calculation of required capital to support guaranteed option

4d. Why BEL is higher than PL? *future profit is not sufficient to recover DAC / VIF is negative*

**5. Capital - International Reinsurer**

5a. Info required by regulator and the auditor for an update on the finances of the parent company

5b. Factors/investigations to consider in recapturing the asset intensive retrocession

*Recapture price / capital requirement / investment policy post recapture / projected capital & profit*

5c. Factors to consider in setting an appropriate level of target surplus

5d. Points to consider in purchasing oversea fund mgmt company: *APRA approval / cap / asset risk /tax*

**2011 S2**

**1. FCR**

1b. How to structure and format FCR

1c. Potential issues when preparing FCR

1d. Reasons for no dividend being paid

1e. *Arrange a meeting first to discuss issues and consequences; then consider whistle blowing powers*

**2. AOP**

**2a. Analysis of Profit**

2b. Comment on each AOP item whether there is a potential issue

2c. **Investigations** to undertake in regard to experience profits or losses

**3. Not a good example, just the basic idea about AV.**

3a. Calculate VIF *= Σt=1(Premiumst + Investment Incomet – Expensest – Commissiont – Claimst –*

*[PCR end of year t – PCR start of year t] ) x vt*

3d. ii) Factors to consider in setting the RDR for **AV**

**4. [DI]**

4a. Principles of choosing profit carrier / Why expected claim is more appropriate than actual claim?

4b. How **assumptions/experience** may affect **Profit volatility**

4c. How to reduce **Profit volatility**: *comm structure / reinsurance / market & product diversification*

**5.**

5b. Why NB Reserve can be 0: *enough profit to be self-supported*

5d. Why apply a high stress margin while experience is good:

*should observe longer period / underwriting does not improve / variability of risk does not change*

5e. Why hold target capital: *have a buffer above required capital / APRA recommends / credit rating*

**2012 S2**

**1.**

1a. Analysis of the financial position and key findings:

*profit / dividend / return on average net assets / business volume / PL / financial position*

1b. Provide recommendation for a measure of target surplus ==> should consider:

*probability of failure / expected experience / interactions between products / reputation*

**2.**

2a. Analysis of the profit, to consider:

*fee income / expenses / profit (fee less expenses) / withdraw / investment return*

2b. Determine the crediting rate, to consider:

investment performance / investment reserve / past practice

* *PL increase by the amount of investment earnings credited to policyholder accounts.*
* *The policies could be regarded as participating or nonparticipating. If the former the investment reserve will appear as Policy Owner Retained Profits, otherwise as Policy Liabilities.*

**2013 S2**

**1. Capital / IRC stress margin**

1a. Calculate the capital base (*Statutory Fund & Shareholders Fund*)

1b. How **AA** determine the **stress margin** for insurance risk charge

1c. Calculate random(1 yr), future(3 yrs cuz 3 yrs later can update assumption) and event stress (2yrs)

1d. **Ways to reduce “single reinsurer” asset concentration risk**

*switch to another reinsurer / increase retentions / increase capital / have reinsurer deposit or collateral*

**2. [Group Death]**

2b. Carry out AOP: *change one thing at a time. For example, update business volume, then things related to business volume (e.g. premium, commission and claims etc.) should also be changed automatically.*

2c. Implications on **P&L**:

i) increase upfront comm: *DAC↑and may not be recoverable / lapse risk is a concern / capital strain*

ii) invest more in lower rating bonds: *investment return↑/ greater volatility and risk*

iii) fully underwriting: *initial expense↑/ loss ratio may be lower / profit down / hire &train underwriter*

**2014 S2**

**1. Capital - focus on the setting of stress margins.**

1a. Recommend random and future **stress margins:**

*random stress = 99.5th percentile – A/E; future stress = trend of the A/E movement*

1b. Calculate Insurance charge, operational charge, aggregation benefit, PCA

1c. i) What is the Regulatory Adjustment to Net Assets: *adjusted PL - reported PL / Tier 2 capital*

ii) Why Insurance Risk Charge could be 0?

*e.g. Stressed PL < Adjusted PL: large margins in premium / investment-linked products*

iii) PCR v.s PCA: *Regulatory Adjustment and PCR are confidential*

1d. Stress margin comparison: Australia v.s New Zealand

**2. Impact on Life Insurance Reporting [IFRS 4 Phase 2 standards came in: Shorter period for DAC]**

2a. EV calculation = ANW + VIF

2b. [Accounting Standard change] Shorter period for DAC, impact on profit and capital

*increase in PL / profitability won’t change in real terms, only the timing / no impact on capital base*

2c. Protect profit under this DAC change

*lower up-front comm / direct business / reduce NB / financial reinsurance / report on 2 basis, old & new*

2d. Alternatives for management reporting approach:

*old approach b4 accounting standard changes / EV approach: not frequent / report NB, inforce separately*

**2015 S2**

**1. Policy Liability (Trowbridge Commission Reform)**

1a. Advisor behavior on Trowbridge Commission Reform

1b. Impact of Advisor behavior on key financial reporting metrics:

*long-term v.s short-term: sales / expenses / lapse / claims / capital / VIF / VNB / profit*

1d. VNB Calculation: *remember deduct tax*

**2. Policy Liability (Cancel and replace)**

2a. Balance Sheet projection: “*Profit” goes into next year’s “Shareholder Retained Profits”*

2b. i) Cancel and replace projection: *interest on negative PL 🡺 interest on DAC*

ii) Explain the impact on the emergence of profit

*PV of profit margin release: no impact since no assumptions being changed and CFs are not affected;*

*PV of profit: difference is caused by the missing of interest on DAC asset.*

**3. Regulatory Capital / Target Surplus**

3a. New **[Annuity] risks and mitigation**

*ALM / capital / longevity (target market profile) / operation / NB volume*

3b. **Capital** required for new annuity business: *IRC (YRT and annuity can be in same RGP) / ORC / Capital Base Synergy (negative APL – PL for annuity, positive APL – PL for YRT, offset each other)*

3c. Setting Target Surplus **methodology**:

*other than general considerations, also consider the related specific risks of the business*

**2016 S2**

**1. [YRT] Policy Liability**

1a. Calculate BEL and PL

1b. i) How to understand negative PL at time 0: *negative liability 🡺 asset / future net cash inflow from policyholders, but they may lapse / large upfront expenses / prevent a loss being recognized at T=0*

iii) Why negative PL cannot be recognized as part of the capital base: *not freely available*

iv) Why target surplus needs to be increased as a result of introducing new product: *identify the purpose of target surplus / risk of reduction in capital base / adverse experience / not experienced*

1c. i) Calculate minimum Net Assets Needed: *which* *should > PCR + Regulatory Adjustments*

ii) Why insurance risk charge could be 0: *highly profitable*

iii) Dividend capacity *= profit - required capital amount injection to support the business*

1d. **ROE** calculation and enhancement: *Reinsurance / issue Tier 2 capital (debt)*

***ROE*** *= Profit after tax / Shareholders’ equity*

*Shareholders’ equity = beginning of year equity + profit earned during the year + necessary capital injections*

**2. EV**

2a. Calculate ANW and VIF: *ANW = Capital Base –PCR –Target Surplus / VIF = PV of distributable earnings*

2b. Before bidding, revaluate **EV** by changing assumptions and/or allowances:

*Expense / Reinsurance / Capital Benefit, ANW↑ / Investment return / RDR / Imputation Credits*

2d. EV roll-forward: *VIF unwind = VIF\*RDR / distributable profit from VIF to ANW / experience profit into ANW / future assumption change (if in loss recognition, into ANW rather than VIF)*

**3. Approach to estimate monthly PL: key components & data source**

3a. Estimate **PL** at each month end 🡺 using accumulation method

3b. Restate the profit or loss if error is material (Stamp Duty 🡺 Acquisition cost)

3d. **AA**: requirements regarding FCR & conflicts of interest: *no “dual hatting” / look after policyholders*

**2017 S2**

**1. Profit [Investment-linked]**

1c. **PL** = account balance + PV of the future losses when in loss recognition

1e. ii) Strategies to improve expected profitability: *initiatives to reduce expenses / economies of scale*

**2. EV**

2a**. i) Differences between MoS reporting and EV/VNB reporting** (also see 2010 S2 1d)

*profit / discount rate / capital requirement / cost of capital / assumption change / surplus / NB impact*

ii) **Judgment** required in the determination of **EV**:

*capital allocation / req capital projection / RDR / EV assumptions can be different from MoS BE basis*

iii) Considerations prior to implementing **EV/VNB** Reporting:

*resources / develop projection model / external review judgement / educate key stakeholders*

2b. i) How to determine the multiplier when calculating **VNB** written year-to-date

ii) Adv & Disadv of the suggested approach (YTD sales \* Multiplier) to calculate **monthly** **VNB**

iii) Why monthly **EV** reporting is not worthwhile: *no major assumption change / take time*

2c. ii) Key information that enable a better comparison of **EV/VNB** with competitors:

*sensitivities (e.g. Project Fulton) / RDR / methodology used / franking credits included*

**3. Capital**

3a. Possible reasons for reduction in Capital Base (daily dashboard):

*transfer / adverse return OR assumption change ==> loss recognition ==> reduce net asset / operational / NB written ==> large upfront cost ==> increase regulatory adjustment ==> reduce capital base / IR up*

3b. **AA**’s consideration regarding: i) distribution of surplus asset to shareholder ii) transfer btw SFs

3c. i) Reduce the volatility of ECR%: *terminal bonus rather than reversionary / reinsurance / ALM*

ii) PCA movement after **combining SFs**

3d. Why asset type backing PRP and RFBEL of Par is diff: *p/h expects risky asset v.s guaranteed benefit*

**2018 S2**

**1. Liabilities, Capital, AV, EV**

1a. Assett+1 = Assett + Profitt+1 + Investmentt+1 – Tax on profitt+1

IRC = Stressed Claims & Expenses in Excess of Base – Pre-tax Profit

1b. i) Checks could be performed on the proposed assumptions for Sales / Loss Ratio / Stress Margin

ii) Comment on the determination of target surplus

1c. i) How to estimate **AV** at T = 10: *assump\*/ RDR / franking credits / NB: 1-year sale times a multiplier*

iii) Why use **EV** approach: *more common / be able to compare with other companies*

**2. Liabilities, Reinsurance**

2a. Determine **PL**

2b. Determine **PL** net of reinsurance: *reinsured profit margin = commission received – reinsured BEL*

*PVFM net of reinsurance = PVFM gross of reinsurance + reinsured profit margin*

2c. New reinsurance contract impact on

i) Profit: *reinsurance commission would not be recognized immediately / reflected in PVFM*

ii) Capital Base / IRC: *Capital Base increases due to the reinsurance commission / DTA offseting*

2e. Terms not mentioned in the treaty: *termination, nature of the asset transfer, payment schedules*

2f. i) Transferring the business to another insurer *v.s* 100% quota share **Reinsurance**

ii) Transfer process: *Part 9 of Life Act / parties involved / no policyholder is materially worse off / 6-12mth*

**3. Analysis of Profit / MoS Liabilities**

3a. Possible reasons that AOP and Experience Investigation have contradict results:

i) for Morbidity: *timing of recognition / PL component (IBNR, RBNA) / net or gross of reinsurance*

ii) for CICP: *discount rate / different claim expenses associated with CICP reserve*

3b. **Additional** investigations:

*re-opened claims / RBNA / claim mgmt practice: decline / further rating factor / previous year analysis*

3c. Recalculate profit margin [assumption change] **PL** = BEL + PVFM

3d. i) Reverse loss recognition position: *no profit margin until the loss is reversed in full amount*

iii) Premium increase, policyholder behaviour in relation to lapses: *DAC cannot be recouped*

**2017 S1**

**1. [Group Death & GSC]**

1a. i) Why use accumulation method compared to projection method: *short-term / low acquisition cost*

ii) **PL** at outset: *= UPR – DAC, as no claims have occurred so no claim reserve is required*

1b. Calculate PL for Group Death and GSC

*\*DAC is not recoverable if in loss recognition or to be reduced to the amount that can be recovered.*

1c. i) Calculate **Profit** = premiums – claims **paid** – expenses – increase in PL

ii) *Argument for separate RPGs: nature of risk is diff; Argument for single RPG: pricing structures are similar*

1d. i) How to Improve Profitability:

*frequent monitoring / GSC claim mgmt., rehabilitation effort / source quotes for reinsurance*

ii) Group tender process should: *conduct pricing review, allow for rein cost / allow premium to increase*

**2. Capital / Insurance Risk Charge**

2a. Why Future/Random stress for a new entrant are higher than others respectively

*Not prescribed / to achieve 99.5% of sufficiency / Future: less experienced; immature underwriting and claim mgmt process; uncertainty over volume and mix / Random: QS reinsurance does not reduce volatility*

2b. Aggregation benefit only available within a SF: *insurance & investment-linked shall be in 2 SFs per Life Act*

2c. Detailed calculation of IRC

2d. **Reinsurer** concentration risk / mitigation

**3. Experience Analysis**

3a. i) IR up, impact on VSA, BEL, Bonus Rate: *downward pressure on bonus as VSA reduce more than BEL*

ii) Address ALM mismatch: *conduct full review / propose new investment strategy / regularly monitor*

3b. Considerations when setting surrender assump for **[Par Endowment]:** *past bonus / close to maturity*

3c. Claim decrement / Non-claim decrement / Expense / Investment experience for [Par] & [YRT]

***Investment experience for [Par]:***

*No investment experience profit or loss as the variances will be all absorbed into VSA.*

*Only affects the current year best estimate cost of bonus and the value of future best estimate bonuses, which are both included in the policy liability.*

***Investment experience for [YRT]:***

*An investment experience will be reported in the Analysis of Profit for the YRT risk products:*

* *Any changes to the policy liability due to changes in discount rates over the valuation period.*
* *The difference between the discount rate and the actual rate of investment return on the policy liability and cashflows over the reporting period.*

3d. **AA** to consider regarding the expense experience loss for a run-off [Par] business

**2019 S1**

**1. Reinsurance**

1a. One-off payment to reinsurer: *to cover the loss of future profits for the reinsurer*

1b. i) Projection rather accumulation method is more appropriate when:

*large upfront acquisition cost / long expected duration of liabilities*

ii) Profit implication: *“acquisition expense recovery carrier” v.s “profit carrier” / same overall profitability*

iii) Operational benefit using projection basis: *alignment with capital, budgeting, EV calculations / better understanding of the profitability / better communication*

1d. *assumptions adopted don’t impact on actual volatility of profit, but the monitored experience profit*

**2. Capital**

2a. Same RPG? Consideration should be given to: ***size*** *of the business / pricing structure /* ***profit carrier***

2b. i) The implication of “Duration Matching” on accounting profit and capital position for IR volatility:

*Accounting profit: a large impact on profit (driven by the BEL and value of profit margins)*

*Capital position: limited impact as duration matched*

ii) Cannot re-price 🡺 IRC up; **Mitigation**: *cease writing NB / increase prem for NB / improve retention*

2c. i) How to estimate PL (*claim reserve + UPR – DAC*) and APL (*claim reserve*) based on **General Ledger**

ii) Outline how to determine PCA (IRC, ACR, ORC)

iii) Profit estimation deviation: *auditor engagement / spread the BEL impact through margins*

**3. EV**

3a.i) **Accounting profit** v.s **EV**: *purpose: statutory v.s measure of business / audience: external v.s s/h*

ii) Notable difference: *RFR v.s RDR / assump change: spread over future profit margin v.s instantly capitalised*

3b. i) **VIF** = PV of expected future profits + PV of expected future capital releases

ii) Impact on **VIF** from “Higher Lapse” and “Rapid Growth”: *ORC / IRC / lapse stress*

3c. Slower release of Target Surplus 🡺 **EV** is expected to reduce

3d. VNB for 1-year is negative, but NB profit margin is positive: *high discount rate applied which NB cannot support*

**Assignment 2019 S2**

**Investment Account Product with discretionary feature**

b. Factors when setting the crediting philosophy used to determine crediting rate.

d. Adv & DisAdv of having the Investment Fluctuation Reserve

e. Impact of equity assets drop 20% on: P/L statement, PL, Account Balance, future crediting rate

f. Consideration when calculating PCA [*link to the scenario given!*]

g. Reporting treatment of a life insurer v.s. a non-life insurer: Life Act and Prudential Standards

h. i) Risks arising from the introduction of Guaranteed

ii) evaluate the cost of guarantee

i. Change asset mix to reduce risk:

return / volatility / competitiveness / fees / p/h expectation / equity / capital / **AA** approval

**2018 S1**

**1. AV**

1b. Implications of company strategy on surplus asset (i.e. capital base less PCA)

1c. Equity ==> Gov bonds, implication on PCA

**2. Profit & reserving method**

2b. Profit carrier: *claim => policies inforce*, impact on timing of profit release [faster] and EV [lower]

2c. Conservative basis: impact on actual profitability

2d. Force acquisition expenses to come through as a loss in the first year: impact on profitability

**3.**

3a. Net Assets(t) = Net Assets(t-1) + Profit(t) + Capital Injection – Dividends

3b. i. Why higher lapse is good for business in loss recognition

ii. Expected investment returns are allowed for in planned profits

iii. Discount rate change leads to loss ==> Asset liability mismatch

3c. i. BEL increases, impact on profit in the current period

ii. BEL increases, impact on EV: decreases as value of future profits decreases

iii. BEL increases, impact on profit in the current period [for loss recognition business]

**2016 S1**

**1. Projecting a BS and capital position / applying prescribed regulatory stress tests**

1a. Capital base

1c. Management actions in response to the stress

1d. How to set a good target surplus policy

**2. MoS [Par]**

2a. PL: Par v.s. non-par business

2b. Shareholder retained earnings = 25% Policy owners’ retained earnings

2c. Tontine problem: [2B textbook 26.13]

an amount of policy owners’ retained profits could in theory remain as a liability on the BS forever after all of the participating policies have terminated.

**3. [DI]**

3a. To increase [DI] premium: considerations / issues / signoffs needed

**2015 S1**

**1. [Level premium term]**

1a. PL & Profit

1b. Capital & VIF

1c. AOP & why lower lapse is bad for level premium term

**2. [DI]**

2a. IR*↓*, PL*↑*

2b. Impacts from aggressive claims reducing initiative taken by claim assessment team:

*litigated claims / high claim mgmt expense / more re-opened claims / lower RBNA & IBNR & DLR*

2c. i) Reasons for the reduction in excess assets

ii) Actions to improve the capital position – Adv & Disadv

*Bring new capital / Reduce NB / Reduce required capital / Increase investment return / Reduce ALM mismatch / Use of reinsurance / Reduce claim, comm and expense*

**3. [Par]**

3a. PL calculation for Par

3b. Error handling process / issues: *bonus, NB, capital, profit, risk mgt, dividend, litigation, p/h equity*

**2019 S2 (Final C2B exam)**

**1. AV**

1a. & 1b. EV movement analysis & ANW + VIF + VIC projection

1c. Impact on EV from lower investment return: *higher lapse, lower fee income, lower EV*

1d. i) VNB method comparison: *Simpler to understand & Ease of use*

ii) Determination of VNB capitalization factor:

*capital / cost on marketing / factor is expected to grow gradually and then reach a stable level*

**2. [DI]**

2a. i) Impact on capital position from poor incidence, termination and claim delay assumption.

ii) How to improve current & future capital position

2b. i) Why stress margin may be higher than industry average? *Newly founded / weak control framework*

ii) Determine event stress: *analyze exposure to location, occupation, sum insured etc.*

iii) Re-pricing timeframe, consideration and limitations: *2-3 yrs, regulatory maximum, past practice*

2c. i) Typical way to have Target Surplus defined: *x% chance* *not breaching PCA over 1-year time*

ii) Regulator actions: *cease NB / require recovery plan / parent support / supervisory adjustment*

iii) Early indicator for capital deterioration: *average case-load per claims manager (claims team)*

**3. Valuation basis change**

3a. Impacts on profits from different reserving methods. [Principle]

3b. Policies grouped by issue year

i) Rationale: *subject to diff pricing, product design, underwriting practice, targeted subgroup, experience*

ii) Operational challenge: *data / assumptions needed / credibility for small cohorts / modelling system*

3c. Implication of higher discount rate being used for calculating PL.

3d. APRA’s written approval prior to making any planned capital base reductions, *e.g. paying dividends of greater amounts than reported profits under local basis, even if higher profit is reported under overseas basis.*

**2014 S1**

2a. MoS v.s US GAAP

2b. External reinsurance v.s reinsuring within the group

**2011 S1**

**1. Profits**

1a & b. AOP

1c. Less surrender, implication on profits: *surrender value v.s release of PL / lower unit exp / more inforce*

1d. Implications of moving to risky assets: *no impact on current profit / capital / ALM / any guarantees*

**2. M&A**

2a. Info needed to understand the target company’s business

2b. Place a value on the business

i) Own assumptions *with future synergies*: *RDR / one-off cost / maintenance exp / lapse (dissatisfied p/h) / mortality from diff underwriting standards / investment return / NB sales / margin squeeze*

ii) Capital*: calculate under new ownership / target surplus / any injection*

iii) Calculation: *VIF / VNB / VIC / sensitivity analysis / shock lapse impact*

2c. Checks to be performed: policy info v.s admin system / against target company’s report

2e. Risks associated with the purchase: *shock lapse / loss of focus / system complexity / staff / agents*

**3. Profits**

3a. Differences btw MoS and Net Premium Valuation: *purpose / profit pattern / assumptions / PL calc*

3b. Redundancy plan impact on profits and AV.

3c. Impact of reducing bonus declared to policyholders:

***no impact******on current profit*** *as profit is before distribution of any dividends / lapse↑ / competition↓, NB↓🡺 future profit & AV↓*

**4. Up-streaming of Capital to overseas parents**

4b. Purpose of target surplus: *support rating / ensure not to breach the capital requirement*

4c. Implications of up-streaming of all excess capital: *dividend↓/ NB↓/ capital requirement*

4e. How to reduce Capital Requirement: *expense & commission↓/ less NB / reinsurance / less risky asset / better duration match / dividend↓🡺 retained earning↑*

**5. Bonus**

5a. Principles of supportable bonus: *financially afforded / p/h expectation / BE assumptions*

5b. How to calculate the supportable bonus

5c. Issues if high declared rates to be used: cap req*↑* as termination value*↑/ not sustainable / equity*

5d. Things to consider: *declared supportable rates / more equitable btw inforce & NB / reduces surrender risk: communication / maintain NB volume: increase commission*

**2010 S1**

**1.**

1a.

1b.

1c.

1d.

**2.**

2a.

2b.

2c.

2d.

**3.**

3a.

3b.

3c.

3d.

**4.**

4a.

4b.

4c.

4d.

**5.**

5a.

5b.

5c.

5d.

**Template S2**

**1.**

1a.

1b.

1c.

1d.

**2.**

2a.

2b.

2c.

2d.

**3.**

3a.

3b.

3c.

3d.

**4.**

4a.

4b.

4c.

4d.

**5.**

5a.

5b.

5c.

5d.

**6.**

6a.

6b.

6c.

6d.