



Singapore
Actuarial
Society

Consolidated Responses to the Monetary Authority of Singapore on the MAS Consultation Paper (June 2012) on the Review on the Risk-Based Capital Framework for Insurers in Singapore (RBC 2 Review)

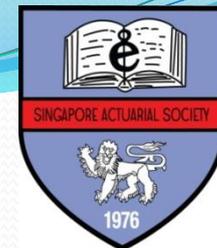
17th August 2012

Agenda



- Background and Scope
- Responses by Proposal
- Next Steps

• Note: All Participants are expected to have read the proposed response paper and have it with them to refer to.

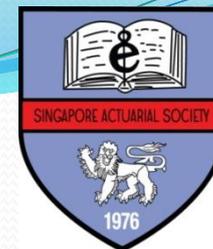


Background & Scope

- A RBC₂ Special Taskforce (“the Taskforce”) was set up at the request of the Council of the SAS:
 - Chaired by Raymond Cheung
 - Input from Life Insurance, General Insurance and ERM committees
- The comments and recommendations provided are:
 - based on actuarially sound principles and not on subjective bases or opinions;
 - independent views of the SAS, not representing the views of any individual, company and/or association;
 - consistent and coherent views across different core practices (e.g., life insurance, general insurance and enterprise risk management);
 - the SAS’ responses are solely directed to the RBC 2 Review and may not necessarily be applicable to any other solvency regime in jurisdictions outside Singapore.
- **All valid views from the SAS’ perspective will be included in the responses**

Overall

- In general, the Taskforce is supportive of the MAS' initiative in the RBC 2 Review.
- However, the Taskforce would like to highlight that:
 - Banking and Insurance sector are fundamentally different
 - Life Insurance (LI) and General Insurance (GI) sector are also different
 - The likely significant increase in capital requirement is a concern
 - The tight timeline proposed for calibration and implementation is a concern

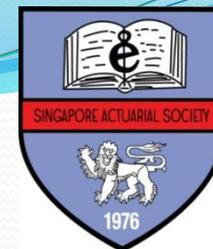


Proposal 5

ERM

MAS proposes to recalibrate risk requirements using the Value at Risk (“VaR”) measure of 99.5% confidence level over a one year period.

- The Taskforce agrees with the proposal to use VaR as the risk measure as VaR is easy to compute and is widely accepted.
- Timeline to finalise the calibration factors / shock scenarios by 1Q 2013 is a concern especially when stress test deadline has also been brought forward to end Mar 2013.



Proposal 6

ERM

MAS proposes not to allow for diversification benefits when aggregating the capital risk requirements.

- The Taskforce disagrees with the proposal.
- Not allowing for diversification may lead to undue increase in regulatory capital requirements
- Increased costs will eventually be passed on to consumers through more costly premiums and / or less coverage
- The SAS is prepared to lead and discuss any actuarial research work around diversification benefits if so requested by MAS, similar to the studies (Bateup-Reed, Collins-White) conducted by Actuaries of Australia in 2001.

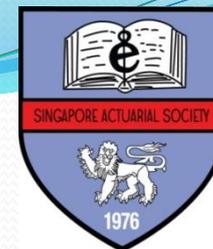
Volunteers Needed!

Proposal 9

Life

MAS proposes to allow a part of the negative reserves to be recognised as a form of positive financial resource adjustment under Financial Resources.

- The Taskforce proposes that there should be a cap on the release of negative reserves.
- The Taskforce also proposes two options on how negative reserves can be treated.
 - Allow negative reserve as a positive Financial Resource Adjustment (FRA).
 - The alternative option is for the negative reserve to be reflected in the BEL and consequentially appear on balance sheet.

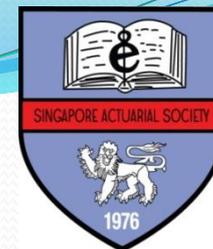


Proposal 3

ERM

MAS proposes to incorporate an explicit risk charge to capture operational risk within the RBC 2 framework...

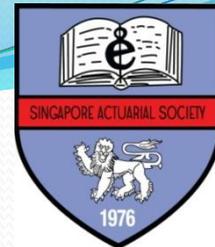
- The Taskforce agrees with the proposal to have an explicit risk charge to capture operational risk. However, the formula used is not appropriately.
- Rather than imposing a risk charge, operational risk could be better managed through qualitative assessment under the ERM / ORSA framework.
- Proposes that the operational risk charge should not be imposed until some conclusive industry studies / actuarial research has been carried out.
- The Taskforce disagrees with para 2.9. Historical events have shown that both frequency and magnitude of operational risks experienced by insurance sector is significantly lower than banking sector. Notable research papers include “Analysing Operational Losses in Insurance” published by the Association of British Insurers (ABI).
- The SAS is prepared to lead and discuss any actuarial research if so requested by MAS. For example, the SAS can perform further research and propose alternative tools and methodologies to capture operational risk.



Consultation Question 1 ERM

Is this formula or bases chosen appropriate? Should we be using written premium or net policy liabilities instead? Should there be differences in the formula for different types of insurers....

- Proposed formula – Ignores quality of risk control / framework, and does not capture different company's diverse lines of business
- Gross or Net Liabilities – Net basis is more appropriate as gross basis includes part of policy liabilities which are ceded out to reinsurers
- 4% factor – one size fits all approach does not appear appropriate. Proposed to use different factors for earned premiums and policy liabilities.
- Alternative approaches
 - Formula incorporate some form of qualitative assessment such as the CRAFT rating
 - Operational risk is not just about liabilities. The proposed formula does not consider the amount of assets a company holds. For LI companies, operational risk on new business is not fully captured if the impact on assets is not considered
 - A percentage of the overall total risk charge as operational risk cuts across all areas of the company's operations, similar to the cap in MAS' proposal

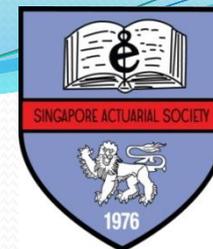


Consultation Question 2

ERM

What type of data can the insurance industry start to collect in order to build up sufficient data to better quantify or model operational risks?

- Collect key risk indicators (KRIs) data that can measure or highlight the operational risk profile of an insurance company: staff turnover, growth trends, number of policies, etc.
- Data on operational risk loss events to populate an industry loss incident database. This process can start by first conducting some industry survey on historical loss events. However, the reliability and consistency of data received from an industry survey across companies can be a challenge.



Proposal 13

Life

MAS proposes the following two approaches with regards to the risk-free discount rate for SGD-denominated liabilities.

- Removal of the LTRFDR is more market consistent.
- However, the Taskforce sees value in retaining the LTRFDR whilst retaining the flexibility under MAS319 to allow an insurer that has implemented an effective cash flow hedge or fair value hedge to elect to use the market yield of SGS of a matching duration as the discounting rate.

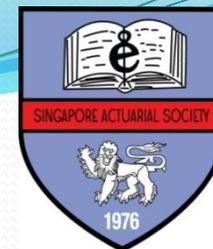


Consultation Question 3

Life

Which of the above approaches is more appropriate?

- Removal of the LTRFDR is more market consistent. However removing LTRFDR altogether will have tremendous implication on the insurance industry.



Proposal 4

Life

GI

MAS proposes to incorporate an explicit insurance catastrophe risk charge in the RBC 2 framework.

- LI and GI companies have varying degrees of CAT risk exposure and the approaches to incorporate risk charge may also vary between the two sectors.
- GI: To consider accumulation risk beyond CAT events. Using scenario testing to compute explicit CAT risk charge is sound in principle. More research around catastrophe risk should be carried out. If explicit CAT risk charge is adopted, care must be taken to avoid overlap with liability risk charges.
- LI: Pandemic scenario is the most likely form of catastrophe that could affect life insurance business and a capital charge might be warranted. However, care must be taken to ensure that calibration of this charge is separate to the calibration of the risk charges for other mortality risk such as trend and level mis-estimation.

Volunteers Needed!



Life

GI

ERM

Consultation Question 6

Do you agree that the cost-of-capital approach, for computing the provision for adverse deviation for both life and general insurance liabilities, is appropriate? If so, do you agree that it is appropriate to adopt a cost-of-capital rate of 6% per annum? ...

- LI: Current approach of PAD is computationally easy and transparent, but not market consistent. The level of PAD does not currently affect level of insurers' free assets. There are arguments to defer market-consistent liabilities to later stage. MAS regulations should leave the door open to other market-consistent methodologies as well. A statement on the principles by which the PAD is to be calculated would therefore be desirable in the regulations.
- GI: Current approach of PAD is simple and easy to understand. CoC approach adds complexity and volatility but not necessarily bring in more benefits. CoC approach should not be implemented until implementation of internal models.
- 6% rate – does not seem to be obviously inappropriate and is consistent with international calibrations of the cost of capital.



Proposal 1

Life

MAS proposes to incorporate an explicit risk charge to capture spread risk within the RBC₂ framework.

- Spread risk is a measure of the credit quality of bond issuers and there may be an overlap with the current debt specific risk charge.
- More clarity should be provided as to how this new risk factor will be co-ordinated with the current debt specific risk charge to minimise potential for double counting.



Proposal 2

Life

MAS proposes not to impose an explicit risk charge for liquidity risk. MAS will work with the industry to conduct liquidity stress-testing, and assess the soundness of the insurer's liquidity risk management practices as part of MAS' risk-based supervision.

- The Taskforce agrees with the proposal that the liquidity stress testing exercise should be part of the risk assessment of the insurer.

Proposal 7

ERM

MAS proposes to allow the use of partial or internal model in the next phase of the RBC 2 review, after the implementation of the standardised approach.

- The Taskforce agrees with the proposal to allow the use of partial or internal models but caution that, due to the complexity of designing and implementing these models, their use should not be made mandatory.
- There should also be clarity as to the approval / validation process and the involvement of external auditors.
- Implementation of Internal model should be made in conjunction with the implementation of the ORSA.



Proposal 10

Life

MAS proposes to classify Aggregate of Allowances for Provision for Non-Guaranteed Benefits, where applicable, as a form of positive financial resource adjustment, rather than as a capital item.

- Referring to paragraph 2 of First Schedule of the Insurance (Valuation and Capital) Regulations 2004, any financial resource adjustment (FRA) will be treated as part of Tier 1 Capital. MAS proposal is to treat the APNGB as positive FRA but this is contradictory to the MAS position that the APNGB does not meet the qualities required of a capital instrument. MAS should clarify the definition of FRA under the Insurance (Valuation and Capital) Regulations 2004 if the intent is not to treat the APNGB as Tier 1 Capital.



Proposals 11 & 12 Life

PCR needs to be maintained at both the company level, as well as at an insurance fund level. MCR needs to be maintained at both the company level, as well as at an insurance fund level.

- The Taskforce proposes that PCR should be maintained only at company level whilst MCR is maintained at insurance fund level.



Consultation Question 4

Life

Should MAS allow for some illiquidity premium adjustment in the risk-free discount rate for valuing certain portfolios such as annuity business?

- Allowing for illiquidity premium for in the discount rate for portfolios like annuities is reasonable as such business is usually sticky with very low lapse rate.



Proposal 14

Life

MAS proposes that insurers follow the regulatory requirements pertaining to discounting as prescribed by the insurance supervisory authority in the jurisdiction issuing the currency, for valuing non-Singapore dollar denominated liabilities for both life and general business.

- The Taskforce is of the view that following the discounting rate prescribed by another jurisdiction without due consideration for other parts of the regulations in that jurisdiction may not be the appropriate approach.



Consultation Question 5

Life

If the relevant foreign supervisory authority has not prescribed any basis for discounting the liabilities denominated in that home currency, what should be the approach taken? ...

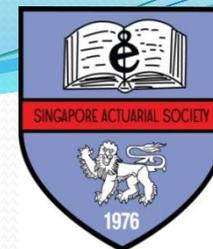
- The discounting rate prescribed by another jurisdiction may have taken into account holistically the regulations applicable in that jurisdiction and other peculiarities of the jurisdiction.

Proposal 15

GI

MAS proposes to extend the discount rate requirements for life business to general business as well, for liability durations above 1 year. For liability duration of 1 year and less, no discounting would be required.

- Investment portfolio of GI and LI companies are typically different by type of assets and by duration.
- Average duration of GI liabilities in Singapore are significantly shorter compared to other countries like US, so impact of discounting is often immaterial.
- The Taskforce proposes to maintain the existing approach, i.e. allowing the actuaries to exercise their professional judgment in determining if discounting should be applied.



Proposal 16 ERM

MAS proposes to introduce Enterprise Risk Management requirements, including those relating to Own Risk and Solvency Assessment, to insurers.

- The Taskforce supports the introduction of ERM requirements and ORSA.
- ORSA should be implemented in conjunction with implementation of rules on the use of internal model.
- Consider the impact of ERM frameworks on the calibration of operational risk charges.
- ERM requirements will have to be proportionate to the size of the insurance companies and to be adapted to the reality of small entities.



Proposal 8

MAS proposes to incorporate the same Basel III features for the Approved Tier 1 resource.

- The Taskforce has no comments on this proposal.



Proposal 17

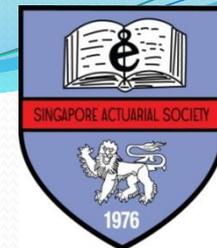
ERM

Life

GI

MAS proposes to implement the RBC 2 requirements for the accounting year ending 31 December 2013. There will be at least 2 years of parallel run.

- The timeline for the implementation of RBC2 requirements depends on the timeline for the calibration of these requirements for which the Taskforce has expressed concern.



Next Steps

- The recommendations and actions proposed by the Taskforce shall be presented to the SAS membership at large for comment and posted on the SAS website.
- The recommendations and actions proposed by the Taskforce shall be reviewed and approved by the Council of the SAS.
- A meeting between SAS and MAS will be arranged to discuss response, particularly areas where SAS wishes to provide research.
- **Question:** Do we want the SAS response to be framed as “The Society...” or “The Taskforce...”
- We would possibly form various working groups to look into areas where SAS wishes to provide research. We will send out requests to **CALL for MORE VOLUNTEERS** to join these working groups. **We need your support!!**



Thank You!

Jill Hoffman, SAS President

Raymond Cheung, ERM Committee

Matthew Maguire, GI Committee

Koo Chung Chang, LI Committee