

MAS reviews Risk-Based Capital framework

In the light of evolving market practices and global regulatory developments, MAS is reviewing the risk-based capital framework for insurers in Singapore. The review ("RBC 2 review") aims to improve the risk coverage and risk sensitivity of the current framework and to specify the MAS' supervisory intervention threshold. In order to arrange a smooth transition from the current to the new framework, MAS plans at least two years of parallel run with the existing framework.

In this paper, we highlight some of the main proposals and how we can help you address them.

29 June 2012

MAS sets an ambitious timeframe for RBC 2 Review

With the final implementation of the reworked RBC requirements to be in place by end of 2013, MAS has set an ambitious timeframe. An essential part of the review is the recalibration of the existing total risk requirements ("TRR") that is planned to be finalised by Q1 2013. This leaves less than a year to derive calibration factors and to assess the impact by conducting various impact studies as planned by MAS.

Additionally, MAS proposes to introduce an ERM framework in the style of the Solvency II Own Risk Solvency Assessment ("ORSA") requirements. The ORSA requirements are currently seen as one of the major challenges for European insurers in their preparation for Solvency II.

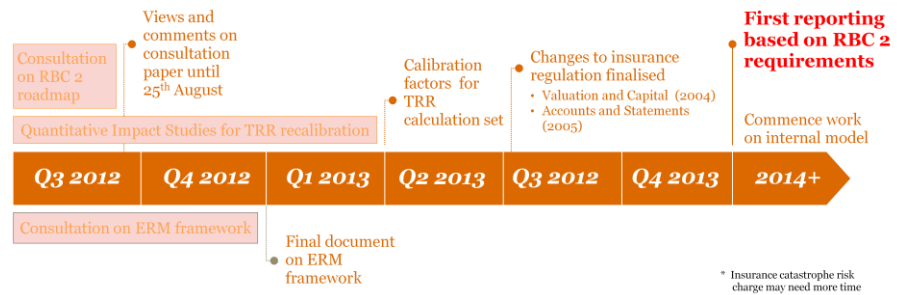
The plan of MAS is to involve and consult industry on the development of the requirements. A final document should be published by end of 2012, which leaves less than half a year for consultation.

Given the tight timeframe, the decision of MAS is to concentrate on the development of a standard framework for TRR calculation first and commence work on internal models in a second phase after 2013.

Key messages at a glance

- Tight consultation and implementation timeline for a number of significant changes on calculations of capital requirements and available capital
- Industry has the chance to influence the resulting impacts
- Capital set at the 1 in 200 year event level (VaR at 99.5%)
- Focus on standard model approach first; internal model to follow after 2013
- Enterprise risk management framework to be developed (similar to ORSA concept under Solvency II)

A first step for the industry to get involved and shape the outcome is the consultation paper published last Friday. The deadline for submission of responses is set on the 25th of August.



Are capital requirements going to increase?

In line with international developments MAS is planning both to increase the scope of the risks to be included in the TRR calculation and to recalibrate the the required risk charges for existing risks. The overall impact will not be assessable until the calibrations are set and based on experience in other jurisdictions the impact may vary widely between insurers. Some areas of change are discussed below.

The proposal is that TRR will include elements for credit spread risk, insurance catastrophe risk and operational risk. The calculation of these risk charges has still to be set. However since these risks have not been considered in RBC calculations so far, this will lead to an increase in the base capital requirement calculation.

The calibration of the new and existing risk charges will be based on a 1 in 200 year event level, which corresponds to a Value at Risk (“VaR”) measure at a 99.5% confidence level over a one year period. And instead of applying fixed factors on risk exposures as in the current regime, MAS will define shock scenarios that are calibrated such that they meet the VaR(99.5%) for the Singaporean market. Considering some current shock scenarios under Solvency II, where shocks are calibrated to meet the VaR(99.5%), the recalibration might increase capital requirements for some insurers as well.

In contrast to Solvency II, MAS proposes initially not to include diversification effects in the RBC requirements, so insurers with diversified portfolios will not benefit from the resulting reduction of required capital. Taking the results of the latest quantitative impact study for Solvency II (“QIS 5”), industry capital requirements reduced by 32% due to diversification effects (CEIOPS result report). According to MAS, diversification might be included as soon as reliable data and conclusive studies are available. MAS is looking to the industry to provide reliable studies to demonstrate that there are applicable correlations between the various risks.

New approach on risk free interest rate might adversely impact life insurers’ capital position due to increase in technical provisions

With regard to risk free interest rate MAS has decided to continue to use Singapore Government Securities (“SGS”) as the basis instead of swap rates, because the government securities market is considered as more liquid than the swap market. Since March 2012, 30 year SGS are available. Hence MAS proposes to include them in the derivation of the risk free interest rate. MAS

proposes to either apply prevailing yields of SGS until duration of 30 years or to derive long term risk free discount rate (“LTRFDR”) based on the 30 year SGS (currently 15 year SGS is used).

In the current low interest rate environment, use of prevailing market rates as opposed to inclusion of more historical data, would result in an increase in technical provisions (due to a decrease in the risk free interest rate as shown in the table below).

Furthermore MAS has raised the question whether an illiquidity premium should be added to the risk free rate.

YE 2011				
Duration	Current methodology	From 1 Jan 2013	MAS proposal (1)	MAS proposal (2)
1	0.37	0.37	0.37	0.37
2	0.35	0.35	0.35	0.35
5	0.6	0.6	0.6	0.6
10	1.63	1.63	1.63	1.63
12	interpolated	actual yield	actual yield	actual yield
15	3.45	2.09	2.09	2.09
18	3.45	interpolated	actual yield	actual yield
20	3.45	3.36	2.36	2.36
25	3.45	3.36	interpolated	actual yield
30	3.45	3.36	n.a.	n.a*

Adjustment of available capital for negative reserves will increase available capital

Under the current RBC regime (regulation 20(4) of the Insurance (Valuation and Capital) Regulations 2004) negative reserves are not recognised at the policy level unless specific conditions on current recoverability of such assets are met. MAS suggests that some account should be taken of negative reserves in available capital.

Depending on the level of negative reserves that will be allowed, this could have a significant impact on the capital position of some insurers. MAS intends to develop a framework and consult the insurance industry on the extent of negative reserves to be recognised.

Supervisory intervention ladder is specified

In the consultation paper, the intervention levels for the supervisor are specified. An insurer which breaches the Prescribed Capital Requirement (“PCR”) (calibrated at VaR(99.5%)) will need to submit a plan to restore its capital position within three months. If the insurer fails to do so, it is in the discretion of MAS to decide if supervisory action is deemed necessary.

Additionally to the PCR requirements, minimal capital requirements (“MCR”) will be defined broadly at a 90% confidence level and set as a fixed percentage of the PCR. If an insurer breaches its MCR, MAS may choose to invoke the strongest supervisory action.

How can insurance companies get involved?

MAS encourage the insurance industry to take an active part in the RBC 2 review. For the recalibration of RBC MAS plans to launch various impact

studies to test the requirements. Additionally MAS is open for the suggestions and comments from the insurance industry. Overall MAS makes 17 proposals and invites comment on each. In addition, six specific questions are raised related to certain of the proposals. We have summarised them in the Appendix.

We suggest that in addition insurers should consider the implementation considerations such as the impact on actuarial model and reporting systems, and the further development of asset liability management policies to calculate and manage PCR at both company and each insurance fund level.

Due to the extensive impact which the new capital requirements might have and the opportunity to influence the outcome, it is important that insurance undertakings take an active role. The current consultation paper offers a first chance to get involved.

How can we help?

- Local and regional teams with extensive experience supporting insurance firms with changes in solvency and risk management requirements
- Support in impact studies to under-stand effect of changed capital requirements
- Operational support to actuarial teams in impact assessment, model building, change management and review
- Understand and help implement upcoming ERM requirements

Contact us

If you would like further information in relation to the issues outlined above, please call your usual PwC contact or any of the individuals listed below:

Your PwC contacts

Actuarial Services

Shuyen Liu
Partner
+86 10 6533 2592
shuyen.liu@cn.pwc.com

Bob Gibson
Director
+65 6236 4068
bob.gibson@sg.pwc.com

Janka Schuld
Manager
+65 6236 7153
janka.schuld@sg.pwc.com

Ben Cheng
Manager
+86 21 2323 3447
ben.cheng@cn.pwc.com

Financial Services

Roy Clark
Partner
+65 6236 7368
roy.j.clark@sg.pwc.com

Alywin Teh
Partner
+65 6236 7268
alywin.teh@sg.pwc.com

Kwok Wui San
Partner
+65 6236 3087
kwok.wui.san@sg.pwc.com

Shea Leen Woo
Partner
+65 6236 3908
shea.leen.woo@sg.pwc.com

Ang Sock Sun
Partner
+65 6236 7100
sock.sun.ang@sg.pwc.com

Appendix

MAS Consultation Paper at a glance

In the following table we give a brief overview on the MAS consultation paper.

	MAS Proposal	MAS Questions
Components of required capital ("RBC")	Inclusion of credit spread risk charge	
	Liquidity risk will be covered by stress testing and assessment of liquidity risk management, rather than an explicit charge	
	Operational risk charge to be formula based and not to exceed 10 percent of total risk requirements	• Is the suggested calculation approach adequate? • What data should be collected to better quantify or model operational risk?
	Insurance catastrophe risk charge should be developed in accordance with the industry	
	• Recalibration of risk requirements to Value at Risk ("VaR") at 99.5% confidence level over one year period • Objective for finalisation of recalibration: Q1 2013	• Data would be needed for calibration of risk requirements
	No diversification: Capital requirements will be added up to calculate overall capital requirements.	• Consideration of diversification possible if industry can provide correlations that are reliable during normal and stressed times
Components of available capital ("FR")	Internal model will be looked at in the next phase of the RBC 2 review	
	Strengthening of features of eligible Tier 1 capital (alignment to Basel III): • Automatic conversion to ordinary share capital when insurer needs to absorb losses or breaches regulatory capital requirements • Write down as long as losses persist and in case of breach of regulatory capital requirements	
	Allow part of negative reserves to be recognised as financial resource adjustment. MAS will consult on the amount to be recognised.	
	Classification of the aggregate of allowances for provision for non-guaranteed benefits ("APNGB") as financial resource adjustment rather than as a capital item	
Solvency intervention levels	• Prescribed capital requirement ("PCR") correspond to a VaR of 99.5% confidence level over a one-year period. • When breaching PCR insurers have to submit a plan on how to restore the capital position within 3 months. • PCR needs to be maintained at company level and fund level	

Solvency intervention levels (cont'd)	• Minimum capital requirement ("MCR") corresponds to a VaR of 90% confidence level over a one-year period • When breaching MCR, MAS may choose to invoke strongest supervisory action (stopping new business, withdrawal of license, etc.) • MCR will be calibrated as fixed percentage of PCR • MCR needs to be maintained at company level and fund level	
Valuation of assets and liabilities	Rework the approach for deriving the long term risk free discount rate ("LTRFDR") based on SGS yields	• Which of the two suggested approaches is more appropriate to derive the LTRFDR? • Should an illiquidity premium adjustment be allowed?
	For non-SGD denominated liabilities MAS proposes use the discount rate as prescribed by the insurance supervisory authority in the jurisdiction issuing the currency	• If there is no basis for discounting prescribed, what should be the approach taken?
	MAS proposes to extend the discount rate requirement for life business to general business for liability durations above 1 year.	
	Provision for adverse deviation is reviewed in light of approaches applied internationally for calculating a risk margin	• Is the cost-of-capital approach (Solvency II approach) appropriate for computing the provision for adverse deviation for life and general insurance liabilities? • Is a cost-of-capital rate of 6% (Solvency II) adequate?
Enterprise risk management	Enterprise risk management requirements (including an ORSA) will be introduced. A final document will be issued by end of 2012.	• Industry will be consulted on ERM requirements.

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