

Institute of Actuaries of India

Professional Compliance Questionnaire (PCQ) – APS7 Actuarial Practice Standard 7 (APS7) - Appointed Actuary (AA) and Principles for determining Margins for Adverse Deviation (MAD) in Life Insurance liabilities

Version:

Version	Effective From
1.00	01 07 2011

Question No	Questions	Reply
1	<p>1. Introduction-</p> <p>Have you fully complied with the Actuarial Practice Standard 7? If not, have you suitably qualified the report given by you?</p>	
2	<p>2. Scope and Background-</p> <p>2.1 Are your assumptions for the valuation parameters based on the insurer's expected experience and do these include appropriate margins for adverse deviations with the margins reflecting the degree of confidence you have in the assumption made about the expected level of those parameters?</p> <p>2.2 Have you exercised professional judgment in determining the appropriate levels of MADs?</p> <p>2.3 Have you taken due care to protect the interest of existing policyholders (PRE)?</p> <p>2.4 Have you considered the range of plausible future scenarios and ensured that the reserve is sufficient in all these cases?</p> <p>2.5 Have you ensured that the MADs are not too low which may lead to a policyholder loss which could be professionally Abhorrent?</p> <p>2.6 Have you ensured that the MADs are not too high providing greater security than necessary which may need greater capital and depress policyholders' and shareholders' returns?</p>	

<p>3</p>	<p>3. First Considerations-</p> <p>3.1 Have you assessed the best estimate assumptions and then added MADs?</p> <p>3.2 Alternatively have you first established net of MAD assumptions or provided an overall contingency reserve?</p> <p>3.3 Have you quantified the MADs used?</p> <p>3.4 Have you tested the impact of adverse experience by running a series of projections to demonstrate the sufficiency of reserve in various adverse scenarios?</p> <p>3.5 Have you looked at the overall effect of the MADs?</p> <p>3.6 Have you considered the extent to which increases in liabilities may be offset by compensating increases in asset values?</p> <p>3.7 Have you considered the ability of Management to react to adverse experience for instance by changing asset mix, reducing, eliminating bonus, increase mortality and other charges or closing new business?</p> <p>3.8 Have you considered the protection provided by Reinsurance?</p> <p>3.9 Have you considered the additional protection provided by Actual Solvency Margin?</p> <p>3.10 In constructing adverse scenarios have you</p> <p>(1) Identified conditions or combinations of conditions which are the greatest threat to policyholder's interests?</p> <p>(2) Considered the impact of falling or rising interest rates?</p> <p>(3) Considered the interaction of liabilities and assets?</p> <p>(4) Considered the impact of policyholders' behaviors in their options?</p> <p>(5) Avoided being influenced by personal opinion?</p>	
<p>4</p>	<p>4. Relevance of experiences</p> <p>4.1 Have you considered the past experience of the company in setting the MADs?</p> <p>4.2 Have you assessed the risks in guarantees on long duration contracts in investment and re-investment of future premiums and investment incomes? For such risks have you considered relevant</p>	

	experience in other jurisdictions other than in India?	
5	<p>5. Mortality, Morbidity and Investment Guarantees-</p> <p>5.1 Have you considered the risks inherent in Mortality, Morbidity and investment guarantees?</p>	
6	<p>6. Minimum Adverse Scenarios as under impact to be studied-</p> <p>6.1 Interest Rate- Rise or fall of 10% from Best estimate as given in para 7 of APS7</p> <p>6.2 Mortality Rate- For Assurances, experience is 10% worse than Best estimate For Annuities, experience is 10% better than Best estimate and improves at around 0.5% p.a.</p> <p>6.3 Morbidity Rate- For Assurances, experience is 10% worse than Best estimate</p> <p>6.4 Withdrawals / Lapses- Increase / decrease of 20% of Best estimate whichever is more adverse</p> <p>6.5 Expenses and expense inflation- Management Expenses are 10% more than Best estimate and increase at a rate consistent with the assumed interest rate on new money</p> <p>6.6 Bonus Rate- Adjusted to allow for experience and PRE</p>	
7	<p>7. Overall Objectives-</p> <p>7.1 Above are deterministic assumptions. Have you studied the impact and set you MADs accordingly?</p> <p>7.2 Have you developed stochastic methods and techniques for setting MADs and for policy liability reserving with a desired level of provisioning adequate at any level of probability?</p>	

Name of the Appointed Actuary:

Signature:

Date: