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President

27th Oct., 2011

Submission to IRDA

Comments on IRDA 'Asset-Liability Management and Stress Testing' for Life Insurers draft circular issued by IRDA, dated 4th August, 2011

This note provides the comments from the Advisory Group on Life Insurance of the Institute of Actuaries of India and does not constitute views of the Council of the Institute.

We thank the IRDA for this opportunity to comment on the Draft Circular.

We welcome the steps proposed by IRDA to oblige companies to consider the resilience of their balance sheet to market shocks. We consider that these steps will considerably enhance the security of policyholders' benefits and enhance public confidence in the insurance industry.

We suggest that once the system of resilience testing is established, IRDA consider using its results to calculate companies' capital requirements, rather than relying on the formulaic approach required by the IRDA (Assets, Liabilities and Solvency Margin of Insurers), 2000. Capital requirements would then be more clearly related to a company's risk exposures than is currently the case.

However, we have certain concerns with the detail of the proposals which we raise in our comments below.

Comments:

Paragraph 1

It appears that there would be substantial overlap between the existing risk management and governance framework and the proposed Asset-Liability Management (ALM) Policy. For example, Section 2 of Annexure 1, Responsibilities of the Board of Directors, of the Corporate Governance Guidelines for Insurance Companies states:

'The Board should set the following policies in consultation with the Management of the Company as indicated.

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….
***d) Define the policy of the insurer in investment of its assets consistent with an appropriate asset liability management structure**.'*

Furthermore, Section 7.2 of the same Guidelines states:

'The [Investment] Committee shall be responsible for laying down an overall investment policy and operational framework for the investment operations of the insurer. The policy should focus on a prudential Asset Liability Management (ALM) supported by robust internal control systems.'

Lastly, Section 7.4 of the same Guidelines states:

'The responsibilities of the ALM Committee shall include:

- Setting the insurer's risk/reward objectives and assess policyholder expectations.
- Quantifying the level of risk exposure and assessing the expected rewards and costs associated with the risk exposure.
- Formulating and implementing optimal ALM strategies and meeting risk/reward objectives. The strategies must be laid down both at product level and enterprise level.
- Laying down the risk tolerance limits.
- Monitoring risk exposures at periodic intervals and revising ALM strategies where required.
- Placing the ALM information before the Board at periodic intervals.'

These responsibilities appear to have a substantial overlap with the requirements of the proposed ALM Policy.

We suggest therefore that the framework for managing risk arising from asset-liability mismatches already exists, without any requirement for a new Board policy. If IRDA considers that there is a gap in the existing framework, we recommend that it specify that the Investment Policy or terms of reference of the Risk Management or ALM Committee be enhanced to fill it. It may please be noted that whichever way the gap is addressed, the timeline for submission to IRDA of 45 days after the circular is published, may not be feasible, given that the Board of Directors and Board committees normally meet on a quarterly basis. We would suggest a period of at least 120 days.

Paragraph 2

We agree that any insurer should understand its asset-liability position and be able to monitor it. A number of interpretations of asset-liability position are possible, for example, on a statutory basis under Section 64VA of the Insurance Act, on a fair value basis, etc. We understand the Circular to refer to the statutory basis.

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However, it is necessary to modify the statutory basis for analysis to be meaningful. Section 64 V (1) (i) of the Insurance Act, 1938, mandates that, for the purpose of demonstrating statutory solvency 'assets shall be valued at values not exceeding their market or realisable value.' IRDA, by its Circular No. 009/IRDA/F&A/Aug.-08, has put this requirement into abeyance in respect of debt assets, other than those in linked funds. As a result, broadly, equities are valued at historical cost and debt is valued at historical amortised cost for the purpose of demonstrating solvency.

As a consequence, a stress to interest rates would not have any effect on the value of the assets in the statutory balance sheet. If valuation rates for liabilities take account of the stressed interest rates, a significant movement in solvency could result, even for a duration matched portfolio that actually has very little risk. The results would be quite misleading.

We note further that even if Circular No. 009/IRDA/F&A/Aug.-08 were waived, debt assets would display asymmetric behaviour, in that on a projected rise in interest rates, their value would fall but on a fall in interest rates, their value may not rise (since the valuation method caps the value at historical amortised cost). Once again, even for a duration matched portfolio, the results of such stresses could appear to disclose a risk that does not actually exist, and would be quite misleading.

The underlying problem is that there is a mismatch between the gross premium valuation of the liability, which is designed to be sensitive to the valuation rate but which does not distinguish between 'locked-in' rates and reinvestment rates, and the book value of assets, which generates a stable value and a stable yield. Gross premium valuation is used, for example, in the UK, where assets are reported at their market values. Book value of assets is used, for example, in Canada, where all asset and liability cash flows are projected on consistent bases, with allowance for reinvestment rates, to demonstrate the sufficiency of assets. However, stress testing reveals the difficulties inherent in this mixture, because liabilities will tend to move more than the corresponding assets. It may be possible to adjust the valuation rates under stress, to dampen the liability movement, but it would be difficult to do this with any precision.

We recommend therefore that for the purpose of stress testing, all investment assets be marked to market. Liabilities may be calculated on a consistent basis, taking into account all applicable professional guidance and regulation, in particular, the requirement of IRDA (Assets, Liabilities and Solvency Margins) Regulations, 2000, Schedule II-A, Section 5 (5) on the valuation rates of interest to be used.

We note in passing that the problem of recognising movements in asset values under stressed conditions is already understood. In the context of applying margins for adverse deviation, section 4.2 (ii) of Actuarial Practice Standard 7 issued by the Institute of Actuaries of India states that the actuary may 'have regard to the extent to which increases in liabilities may be offset by compensating increases in asset values.'

Paragraph 3

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We suggest that any ALM Policy, or enhancement to existing policies as discussed above, address risks arising from the mismatch of assets and liabilities, by currency, nature or duration, rather than a holistic view of all the risks an insurer is exposed to.

Following the introduction of the Corporate Governance Guidelines for Insurance Companies, risk management frameworks that are designed to oversee the overall risk profile of a company should have been established. ALM would be a significant component of those frameworks, but cannot replace them.

Paragraph 4

Reference in this paragraph to 'economic value' may require definition.

This paragraph refers to various risk categories, not all of which appear relevant to ALM.

ALM typically addresses interactions between assets and liabilities, and in particular the effect on surplus given changes in asset values, whereas underwriting risk affects only the liabilities. Therefore, underwriting risk is not normally considered to be a part of ALM. Having noted this, we accept that, where exposures are material, it is reasonable to consider the effect on solvency of a deterioration of claims experience.

Liquidity risk is normally taken to be the risk that the Company, though solvent, either does not have sufficient financial resources available to enable it to meet its obligations as they fall due, or can secure them only at excessive cost. ALM typically addresses risks to solvency, by considering unexpected movements in assets. Since solvency is taken for granted in liquidity risk, it cannot really be addressed through ALM techniques. Once again, however, having noted the point, we recognize the importance of managing the exposure to liquidity risk.

We note also that monitoring of liquidity and underwriting risks would normally fall under the purview of the Risk Management Committee, mandated by the Corporate Governance Guidelines for Insurance Companies. We suggest therefore that consideration of these risks be removed from ALM, but that IRDA may specifically mandate the Risk Management Committee to oversee their management.

Paragraph 6

The Draft Circular proposes that Table-ALM be provided within 21 days of the end of each quarter. We submit that the balance sheets of life insurance companies are typically quite slow-moving, and that there would be little benefit in requiring this report within 21 days. We recommend that the timescale for reporting be reconsidered. Furthermore, quarterly submission will normally not reveal a significant change in the condition of the company. Given other work demands in April to June, it would be helpful if reporting were only required as at 30 June and 31 December each year or, better still, be incorporated in the annual reporting to IRDA.

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The Draft Circular also proposes that this table be submitted from quarter ending 30th September, 2011. We suggest that whatever reporting is required, companies be given some more time to implement the systems changes necessary. Otherwise, there is a risk that the quality of reporting would be compromised.

We note that Table-ALM requires the signature of the Chairperson of the Board. As with most IRDA reporting, we suggest that the certification by the Principal Officer, Appointed Actuary and Chief Financial Officer should suffice.

The table itself splits assets and liabilities by duration. We submit that while cash flows may be split by their term, duration would typically be considered at portfolio level. While cash flow matching may be considered optimal from the perspective of risk mitigation, for complex portfolios such as insurance liabilities, cash flow matching is often impossible. Therefore companies may choose to manage the duration of assets and liabilities at portfolio level. They recognize that the approach has imperfections, arising for example from convexity mismatches or from the fact that the duration, being a derivative, is applicable only in the neighbourhood of the given (force of) interest rate. They therefore apply stress tests to estimate the effect on surplus.

To segment the assets and liabilities by their durations would appear to serve little purpose. Companies would not manage portfolios in this way, and nor would they quantify risk in this way. Management would typically be by limiting durational mismatches at portfolio level, and risk quantification would be by assessing the effect on surplus of a stress event. So long as this effect remains within tolerance levels, there would be no need to specify any closer matching of assets and liabilities. If any such closer matching were required, it would typically address cash flow matching, not the matching of assets and liabilities by durational segment.

We also note that for statutory valuation, a single assumption of interest rate is typically made for a portfolio of liabilities. It is not clear whether the base discount rate to be used for the categorisation by duration would be this single valuation rate or whether it would vary by duration, to reflect the shape of the yield curve. The latter would be more consistent with a realistic valuation of liabilities, not a statutory valuation. We note however that the stresses on the yield curve specified in Annexure-2 indicate changes in shape. The anticipated effect of such changes on the valuation rate should be made clear.

Participating products need special attention if they are to be included in the stress testing, as bonus rates would usually be adjusted if there were a significant change in interest rates. We note however that the Actuary should be conscious of constraints on any change to assumed bonus rates imposed by the requirement to meet policyholders' reasonable expectations.

We recommend that Table ALM be reconsidered. We recommend that the focus of reporting be on the surplus under stress events.

Paragraph 7

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Sub-paragraph 7.1

It is not clear what is meant by 'base discount rate', though we take it to mean valuation rate. However, we note that in this case, a fixed stress could penalise those companies with relatively prudent assumptions. Please also see our comments on the discount rate under paragraph 6, above.

Since the liability valuation rate is itself a consequence of asset yields, as provided in the ALSM Regulations, Schedule II-A, Section 5, the stress event should ideally be defined in terms of a market movement in asset yields, and then we would model the consequences for assets and liabilities. As discussed in respect of paragraph 2, it is important to take consistent valuations of assets and liabilities.

Sub-paragraph 7.2

We submit that duration is simply a tool to assess the degree of mismatch; it is not of any intrinsic interest. The impact on duration would therefore appear less significant than the impact on surplus. We suggest that only the impact on surplus be reported.

Sub-paragraph 7.2.1

The impact of a fall in equities on the risk profile of a fund is not adequately captured by any effect on duration.

As discussed in respect of paragraph 4, we suggest that underwriting and demographic risks be excluded from the ambit of ALM, though they should undoubtedly be covered elsewhere in the risk management framework of a company.

In respect of expenses, it would appear important to set the base assumption before deriving sensitivities. Currently, there is very little prescription in this regard. However, without some prescription of the base assumption, we suggest the sensitivities may not be meaningful.

Future expected new business is not a part of the liabilities, and what is intended in this regard is not clear to us.

Sub-paragraph 7.2.2

This section requires a projection of the business plan under stressed scenarios. Similar comments apply as to paragraph 7.2.1.

On the stressed scenarios, we note that year on year falls of 30% in equity values for three consecutive years appear excessively strong.

This sort of analysis may be presented annually to the Board in the Financial Condition Report (FCR), though only projected surpluses would be reported, not durations. It is of

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undoubted value in understanding the risk exposure of the company, given its business plan. However, in a stable environment, the results of any analysis would not be expected to change materially from quarter to quarter. We suggest therefore that such projections be made less frequently as a matter of course. (Please see our comments on paragraph 6, above.)

If the environment or business plan changes radically, the Appointed Actuary should in any case consider the requirement for a new FCR. If fresh financial projections are required, they can be shared with the Regulator.

We note that a projection of the effect on duration of fulfilment of the business plan, under normal and stressed scenarios, would be far in excess of any normal requirements of risk management, and, we submit, would be of questionable value.

Paragraph 8

For non-participating non-unit funds, surplus is typically fungible. There are however constraints on the fungibility of funds for future appropriation in participating funds. We recommend therefore that the partition of the balance sheet of the company, for the purpose of this analysis, take account of these constraints on the fungibility of surplus. A partition into participating funds and others (excluding unit linked) should be fit for purpose.

We note that solvency is demonstrated only at company level, not at fund level. However, we recognize that analysis at fund level can reveal risks that may otherwise be disguised.

Paragraph 9

We entirely agree that stress testing of the balance sheet is a critical to risk management and the maintenance of the financial soundness of insurers.

Paragraph 10

We note that Annexure-ST captures the effect on available and required solvency margins of stress event, i.e. the effects on surplus. With that proviso, similar comments apply as to paragraph 7.

We recommend that the analysis focus on those parameters that have a material effect on the surplus, as at the date of valuation. Once this base is established, the scope may be extended to include less material parameters and projections of surplus.

Annexure 2

If this analysis is to inform the capital requirements of insurance companies, we recommend that the Authority consider the extent of capital already tied up in the value of liabilities, through the margins for adverse deviation and through disallowance of negative reserves. We would caution against duplication of capital requirements.

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We take it that 'change in credit spreads' should be taken to mean 'change in risk of default of corporate bonds.'

We would appreciate greater clarity on some of the ‘Risk Factors’ in paragraph 6.

Sub paragraph 6(c)

Changes to the reserving basis are not arbitrary but would depend on experience and future expectations. If the intention is to demonstrate that certain valuation parameters are important than others, that may be done without any stress testing. If stress testing were used, it would be important to estimate any concomitant effects on assets.

Sub paragraph 6(e)

Distributions to shareholders can be made only from surplus. If capital requirements come to be set based on this type of resilience analysis, it becomes hard to envisage a stress event arising from distribution of surplus, since by construction, surplus backing required capital could not be distributed.

Sub paragraph 6(f)

A tax charge would apply, typically, to emerging or distributed surplus. (Our current regime has the former.) Since the emergence of future surplus is not recognised in the valuation, it does not appear possible, except in the special case of participating business, to apply a shock to the balance sheet.

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