

Fair Value Accounting: International Developments and Relevance for Indian Insurance Industry

*By - V.Rajagopalan,
R. Kannan,
Michael Wood,
Sanket Kawatkar¹*

1. Financial reporting has undergone considerable changes in the last 10 years, due to various developments affecting the finance industry. In this context, one important question often asked is what are the fair values of assets and liabilities, so that financial projection could be based on realistic assumptions and this question includes what methods of valuation of assets and liabilities are to be adopted which would help the informed investor to take matured decision. This would also help companies to take timely, appropriate and adequate actions to enhance the embedded values to the business in general and shareholders in particular.
2. The International Accounting Standards Board has initiated a number of steps to develop standards for fair value accounting. Moving towards fair value accounting from the present practice would involve significant changes in various activities of insurance industry, including that of solvency reporting, profit forecasting, product design, asset allocation and the general management of the insurance company.
3. In this paper an attempt is made to give an account of developments which had taken place in various parts of the world, and highlight the issues which are of interest to us in India, and the steps required to implement to enable us to move towards fair value accounting.

¹ Views are strictly personal of the authors and not of the institutions for which they work.

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4. This paper is structured in five sections, as follows:

Section I : History of fair value accounting

Section II: Reporting practices in select countries

Section III: Impact of fair value accounting

Section IV: Accounting and actuarial issues

Section V : Issues for India.

Section I : History of Fair Value Accounting

5. In 1997, the International Accounting Standards Board (IASB), formerly called the International Accounting Standards Committee, set in motion a project on insurance accounting. Their objective was as follows –
6. “to produce a single set of high quality, understandable and enforceable global accounting standards that require high quality, transparent and comparable information in financial statements”. The purpose of this project was to develop a standard of reporting for use in general purpose financial statements. This standard should address the needs of the many different users of the financial statements of an insurance company (e.g. potential investors, regulators, rating agencies) and should seek to produce accounts that meet the following criteria of transparency, easiness in understanding and consistency between various entities involved. More transparent and easily understandable accounts are clearly desirable. Ideally, although the financial statements of insurance companies can be complicated, you should not need to be an actuary or accountant in order to interpret them.
7. The day to day running of the IASB was delegated to a Steering Committee. This consisted of representatives from all the major insurance markets around the globe. Progress was initially fairly difficult; but in December 1999 the Steering Committee published an Issues Paper on insurance accounting and asked for feedback by the end of May 2000. A substantial feedback was received both from the insurance industry in general and from other interested parties (e.g. the actuarial and accounting professions).
8. The Steering Committee reconvened in September and November 2000 to discuss this feedback and then in April and June 2001 to develop a report to the IASB. This report took the form of a Draft Statement of Principles (DSOP) setting out the principles of

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fair value, which should be applied to insurance business. A summary of the principles set out in these chapters is given in Appendix A.

9. It is important to note that although the DSOP provides us with the best indication of how fair value will be implemented; its conclusions are still tentative and may therefore be changed at future IASB meetings. The principles of fair value accounting for insurance contracts will be finalized only after completion of a formal ballot and the issuing of an International Financial Reporting Standard.
10. The International Actuarial Association (IAA) was also involved in the exercise by providing inputs to the IASB on matters concerning actuarial issues. The IAA had earlier influenced the development of IAS 19, the accounting standards for employee benefits. Reflecting the degree of recognition achieved for the contributions of the IAA in the development of IAS 19, a member of the IAA (the then International Federation of Actuarial Associations – IFAA) was appointed to the IASC steering committee. The IAA also formed a committee to prepare the IAA positions on insurance accounting and to monitor the work of IASC in this regard. The issues paper published by the IASC in December 1999, included significant contributions from the IAA. The IAA Committee also came out with a set of 15 principles which would form the basis for the response of the IAA to the IASC issues paper.
11. Target dates for the implementation of the accounting standard are far from certain and are likely to vary from country to country. The European Union is probably furthest ahead in its thinking and has indicated a desire for all listed European insurers to report on the new standard by 2005. If this is to be the case then comparative figures would be required for 2004 which would mean that processes and systems would need to be in place by the start of 2004. Other jurisdictions are further behind in their thinking, but it seems that the principles of fair value accounting are beginning to be accepted in most major markets, including the USA and Japan.
12. The purpose of the IASB project is to produce an international accounting standard for use in general purpose accounts. In parallel with the work being done by the IASB, a significant amount of effort is also being put into reviewing the system of reporting for prudential regulatory purposes. This is being driven forward on an international basis by the International Association of Insurance Supervisors (“IAIS”) and at a domestic level by individual regulators.

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13. In 1999 the Institute and Faculty of Actuaries established a working party to look into this issue from a UK perspective. The working party was given the following broad terms of reference: “to consider fair value in the context of the various objectives of actuarial valuations but to focus in particular on the prudential (i.e. statutory solvency) reporting requirements; to consider whether a better approach could be developed if no constraints, such as existing legislation, existed; to identify a set of fair value principles that can be applied for the purposes of prudential reporting and associated purposes”.
14. The working party reported its findings in November 2001 (Fair Valuation of Liabilities – Report of the working party). In broad terms the working party accepted the merits of moving to a fair value based system and acknowledged the trend towards using a risk based capital approach for prudential reporting. It proposed the following six principles that should be applied to prudential reporting. For the purposes of prudential reporting, margins in excess of those appropriate for fair value in GAAP (i.e. general purpose) accounts are required. These excess margins should be disclosed to the users of financial statements so as to ensure transparency and comparability. The prudential reporting system should ensure that similar products sold by different legal entities receive similar accounting treatments. The prudential reporting system should encourage good risk management practice. The prudential reporting system should allow for the assets held by the insurer and the options available to policyholders.
15. The prudential reporting system should have a set of trigger points above the point of genuine economic insolvency as a warning of capital tending to become insufficient.
16. It seems likely that the approach taken for prudential reporting will be closely related to that used for reporting in GAAP accounts but with an extra degree of prudence.

Section II : Reporting Practices in Selected Countries

17. In this section we discuss the reporting practices in selected countries, namely, UK, Australia, Canada and USA.

Statutory Reporting

18. In order to ensure that the life insurance companies will be able to meet their obligations to policyholders over the long term, almost all countries have imposed statutorily prescribed solvency and reporting requirements. These take the form of asset regulations,

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liability regulations, demonstration of solvency requirements and information to be submitted in prescribed formats to the regulatory authority.

19. The primary objective of regulation is to protect the interests of policyholders by ensuring solvency of the business. Therefore statutory accounting principles have laid emphasis on conservative valuation rules for balance sheet items. For example, book values of assets, some assets may be restricted in value or may be inadmissible; liability values based on conservative assumptions as to future experience. In addition, companies may be required to hold a statutory solvency margin. These are designed to ensure that the company will be able to meet its liabilities under existing contracts in a wide variety of circumstances without the need for additional capital. It is also accepted that this valuation should form part of the demonstration that company is run in a sound and prudent manner. Concerns over operating results have been of secondary importance.
20. Traditionally, profit in life insurance has been determined by reference to transfers from the life insurance fund to the shareholders' fund. For offices transacting traditional with profit business, amount of profit transferred from the life insurance fund is further constrained by relating it to the surplus distributed to the with profit policyholders. Bonus rates tend to show a smooth progression from year to year and the distributable surplus is largely determined by the bonus philosophy of the office. Almost invariably new business causes a strain on the surplus and the trend is reversed gradually as the policy runs its course.

Financial Reporting

21. For a long time, statutory accounting has influenced financial reporting of the life insurance business. Life insurance companies were afforded special disclosure exemptions. For example in the UK, insurance companies, were exempted, before 1995, from reporting to shareholders on a completely true and fair basis and auditors were required to comment on whether the accounts were prepared in accordance with the regulations.
22. The use of statutory accounting principles has not been found satisfactory for reporting to shareholders whose interests are in the earning power of the business. Life insurance accounting and reporting is perceived, by policyholders, shareholders, investment analysts and the general public alike, to be shrouded in mystery unlike any other industry.

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Pressures for Change

23. For a number of years, life insurance industry has been subject to calls for change in its financial reporting practices. The main influences came from the demand for more meaningful information to shareholders and prospective investors, valuation needs of mutual companies seeking transition to listing status, the need for seeing results more in line with the company's economic value so that unwelcome acquisition bids can be warded off and the desire to see more uniformity in accounting and reporting practices by the accountancy and actuarial professions and financial analysts.
24. The pressure has stimulated the accountancy profession and the life insurance industry to develop generally accepted accounting principles (GAAP) for life business. The task has not been easy and a host of technical and conceptual difficulties have to be overcome in the process. Currently, except possibly for Canada and Australia, most of the other countries report differently for statutory and GAAP purposes.

Reporting Practices

United Kingdom : Statutory Reporting

25. The Insurance Companies Act requires an annual investigation into the financial position of life insurance business, the assets and liabilities being valued in accordance with the regulations.
26. Assets are valued largely at market value and in some cases the assets may be inadmissible and given nil value and in other cases the value is restricted. Liabilities are valued with proper provision for all liabilities on prudent assumptions in regard to the relevant factors. The liability valuation must meet the criteria set out in Article 18 of the E.U. Third Life Directive, which is enacted into the U.K. legislation. These are summarized below:
27. The norm is a prospective and individual policy-by-policy valuation. The valuation assumptions shall be on prudent basis, which will include an appropriate margin for adverse deviation of each of the relevant factors over the best estimate. The method of valuation will take into account the method of valuing assets. The mathematical reserve shall not be less than any guaranteed surrender value and therefore cannot be negative.
28. The maximum technical interest rate is restricted to a blend between the yield on existing assets less a prudential margin and a prudent maximum assumed yield on future assets.

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The allowance for expenses should have regard to type of policy, administrative costs and commissions expected to be incurred. Allowance for future expenses may be made implicitly or explicitly. For with profit policies, future bonuses should be allowed for, implicitly or explicitly, in a manner consistent with other assumptions and the current method of distribution of bonuses.

29. In addition, the U.K. regulations require the following, namely: The valuation should have regard to the reasonable expectations of policyholders. No credit should be taken for voluntary discontinuance. The amount of liabilities should be such that they avoid future valuation strain. A net premium valuation should be used for non linked contracts where appropriate. Use of Zillmerisation is permitted subject to limits. The amount of liabilities should take account of the nature and term of the assets, the values placed on them and any possible changes in their values. The provision for expenses should include a reserve for the contingency that the office ceases to write new business.
30. In addition to being able to cover the mathematical reserves and other liabilities, the company is also required to cover a solvency margin. If the company fails to cover the solvency margin, the Financial Services Authority will intervene and require a plan to restore the solvency margin.

United Kingdom : GAAP Reporting

31. Major changes were initiated from 1995 in the reporting under the Companies Act as a result of the EC Insurance Accounts Directive. The changes included the applicability of true and fair basis reporting to insurance companies. The view is that the Insurance Accounts Directive does not require calculation of liability values on a best estimate basis. The requirement is that the amount of technical provisions must be such that at all times the undertaking can meet any liabilities arising out of insurance contracts as far as can reasonably be foreseen. This is interpreted to imply an element of prudence covering potential deviations from best estimates that could be reasonably foreseen.
32. The main distinctive features of the accounting basis, described as the Modified Statutory Basis (MSB) are: separation of amounts previously shown in the life fund into technical provisions, shareholder reserves and fund for future appropriations; recognition of deferred acquisition costs as an asset in the balance sheet except where the deferral is by an implicit actuarial method need to identify movements in unrealized gains and losses.

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33. The MSB does not change the amount transferable to the shareholders' fund, which is limited by the result of the statutory valuation. However some of the items, which are part of the mathematical reserves under the statutory method, e.g. resilience reserves, additional expense reserve on closed fund alternative, will not qualify as technical provisions. Any additional amount recognized would not be removed from the long-term fund.
34. In addition many of the proprietary groups report on Achieved Profits Basis, which can be defined as the change in embedded value (measured as the present value of expected future transfer to shareholders from the in force portfolio) over the reporting period plus the profit transfer in the period.
35. By implementing deferral of acquisition costs, MSB ensures that sale of profitable products will not give rise to an accounting loss in the first year. It is still a conservative measure in relation to liabilities. Profits could be more volatile as a result of movements in the unrealized gains and losses. Acceleration of profit under MSB is not affected by taxation considerations as tax computations are based on the statutory return accounts.
36. The embedded value method recognizes the bulk of the profits when the new contract is written. It is criticized on the ground that it incorporates profits from future performance and that the values are more sensitive to changes in business and financial conditions than a measure based on profits made. The results are also sensitive to the risk discount rate, the choice of which has the element of subjectivity. The achieved profits method recognizes profit as it is earned over the life of the contract.

Australia : Statutory and GAAP Reporting

37. Since 1996, there is a statutory requirement that accounts should be produced on the basis of the Actuarial Standard 1:01 of the Australian Life Insurance Actuarial Standards Board. The method, called the "Margin on Services Method", produces realistic valuation of the policy liabilities and provides for emergence of surplus as it is earned. The method is accepted for both solvency reporting and profit reporting.
38. The method centers on a best estimate gross premium valuation plus planned margins for profit as the statutory reserve. Best estimates assumptions are made initially, when the policy is written and reviewed on subsequent valuation dates. The planned profit margins are in relation to one or more profit carriers (e.g. life cover in the case of pure term products and investment management charges in the case an investment contract) chosen at the outset.

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39. The underlying methodology ensures that no profit is recognized at the time of issue of the policy. In the case of with profit policies reserve for future bonuses is required on the basis of supportable bonus rate. The cash flows are discounted using the anticipated future investment earnings rate allowing for interest, dividends, rents and future capital appreciation. The policy liability is normally calculated using projection methods but alternative methods of calculations are allowed. Projection methods make implicit allowance for recovery of acquisition costs.
40. The value of planned margins is released over the life of the policy. If the best estimate assumptions remain valid throughout the policy period, the expected profit will arise in line with the profit carrier. In reality actual experience will differ from the expected resulting in experienced profit or loss. As experience changes best estimate assumptions as to the future will change and the methodology involves recalculation of the expected future profit, which will be released over the future. Expected future losses must be recognized immediately. The method allows for negative values as also voluntary discontinuance.
41. For statutory reporting, additional reserves are required for demonstration of solvency and capital adequacy. The solvency reserve is the excess over the statutory reserve (calculated on best estimate basis) calculated incorporating prescribed margins (instead of planned margins) and providing for other contingencies such as elimination of negative reserves, adverse asset performance (resilience reserve) etc. The capital adequacy reserve is the excess over solvency and statutory reserves of a valuation incorporating acceptable margins rather than prescribed margins. Standards are laid down for the strength required in the capital adequacy reserve.
42. Solvency reserve is published but capital adequacy reserve is not published. Failure to meet capital adequacy reserve would result in closer regulatory supervision. Failure to meet solvency reserves would be expected to result in regulatory intervention. Assets are valued at market value in the balance sheet.
43. The calculations involved in the Margin on Services Method are perceived to be complex. As no profit occurs on the issue date of the policy, the method does not show the value of new business. The other comments on the method are that provides no information on cost of capital; it does not demonstrate distributable earnings; and it fails to give timely warning of deteriorating trading conditions.

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Canada : Statutory and GAAP Reporting

44. The purpose of the Canadian valuation reporting is to produce life company results in accordance with GAAP and to demonstrate continued solvency and viability. Thus there is a single reporting to meet the regulatory and GAAP requirements, thus saving the costs of preparing financial statements on two different bases.
45. Known as the Policy Premium Method, it is a gross premium valuation using best estimate assumptions with provision for adverse deviations. The method allows negative values and assumption of early lapses and surrenders. In the case of participating policies reserve is set up with explicit allowance for future dividend scales consistent with the office's expected future experience and reasonable policyholder expectations. Use of gross premium for valuation means that initial expenses are effectively spread over the premium paying term. The actuarial assumptions can be changed at each valuation date.
46. Additional strength is demonstrated in two other ways. Appropriation of surplus is made to cover negative values and to ensure that basic policy reserve is at least equal to guaranteed surrender values. Demonstration of solvency requires the meeting of minimum continuing capital and surplus requirements, taking into account variability in assets and liabilities – effectively a combination of solvency margin and resilience reserve.
47. Dynamic solvency testing is an integral part of the Canadian regulatory regime.
48. On the asset side amortized book value is shown for fixed interest securities and mortgages. For equities and property, values are smoothed by bringing only 15 % of the change in value of equities and 10 % of the change in value of the property, into account and writing up or down the balance sheet values accordingly. The method results in recognition of profit at the point of sale to a greater degree than any other method. The reported profits are very sensitive to the slightest change in actuarial reserving assumptions.

USA : Statutory Reporting

49. In the USA each State regulates the insurance companies domiciled in the State. The statutory regime and working practices differ slightly between States. The National Association of Insurance Commissioners has a coordinating role and issues model laws,

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which the States adopt with or without modifications. The States require the insurance companies to follow mandated accounting standards (called the statutory accounting principles (SAP)) in preparing the regulatory financial statements.

50. The method and assumptions used to derive the technical reserves are prescribed in great detail in the State laws and are designed to produce conservative assessment of liabilities. An important aspect of the liability valuation is that credit can be taken for reinsured portion of the liability only subject to the reinsurer satisfying certain conditions. The statutory accounting standards require that expenses are written off in the year in which they are incurred. Liabilities have to take into account the non - forfeiture rules and guaranteed surrender values.
51. On the asset side only certain classes of assets are admitted to the balance sheet. Limits exist on the proportion of certain asset classes, which an insurer may hold. SAP requires bonds in good standing to be valued on an amortized basis, equities valued at market and real estate usually valued at cost less depreciation. Specific reserves must be set up to absorb and insulate surplus from certain fluctuations in investment values.
52. The Valuation Actuary is required to give an actuarial opinion regarding the adequacy of reserves and the American Academy of Actuaries has issued guidance to actuaries in giving these opinions.
53. Except for companies with a constant ratio of new to existing business, SAP distorts the economic profitability of an insurer. Fast growing companies with profitable business may show a hefty SAP loss and declining companies with poor quality business may show hefty profits.
54. Risk Based Capital (RBC) is part of the regulatory reporting format since 1993. The purpose of RBC is to provide capital requirements that reflect differences in risk compositions of asset and liability portfolios of insurance companies. The regulator uses a formula based Authorized Control Level Risk Based Capital (ACLRBC) to determine the need for regulatory intervention. The ACLRBC amount is compared with the Total Adjusted Capital (equal to capital and surplus plus the Asset Valuation Reserve (AVR) plus 50 % of the dividend liability) to determine whether certain statutory triggers have been tripped. Total Adjusted Capital of less than 200 %, 150 %, 100 %, and 70 % of ACLRBC triggers various levels of regulatory action.

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USA : GAAP Reporting

55. Through statutory reporting regulators look for overwhelming evidence that companies would be able to fulfill their obligations under contracts in force. The US GAAP accounting has evolved as an attempt to correctly allocate costs, revenues and expenses and to determine the net income during the reporting period.
56. The method adopted by US GAAP for matching premiums with benefit outgo and expenses is to assume that each premium can be sliced into components relating to acquisition costs, renewal costs, benefit costs and profits. Acquisition costs are assumed to be recoverable from future premiums and are first capitalized to form a “Deferred Acquisition Cost” asset which is written down gradually as premiums are recognized. The above approach leads to recognition of profit in line with premiums. The benefit reserve assumptions are based on best estimates with provision for the risk of adverse deviation. The provision for adverse deviation is released into profit (released from risk) when the risk of adverse deviation passes and the provision is no longer needed.
57. The implementation of US GAAP is based on rules laid down in the audit guide and the financial accounting standards, from which very little deviation is permitted. The US GAAP classifies insurance contracts as short duration and long duration contracts. Long duration contracts are further categorized as investment contracts, limited payment contracts and universal life contracts.
58. FAS 60 is the relevant US GAAP standard for long duration contracts which are not investment contracts, limited payment contracts or universal life type contracts (e.g regular premium term insurance or a traditional whole life contract). Liability represents the present value of future benefits and related expenses less the present value of future net premiums (i.e. that portion of the gross premium required to provide for all benefits and expenses). The liability should be based on assumptions of, for example, expected investment yields, mortality, morbidity, lapses, surrenders and expenses, applicable at the time when the insurance contract was made, with provision for adverse deviation. Surplus on FAS 60 business can be expected to emerge as a constant proportion of premium and from the unwinding of provisions for adverse deviation. The bases used to calculate the benefit reserve should remain unchanged (i.e. locked in) as long as it is prudent to do so (i.e. until a premium deficiency is found to exist).
59. On the assets side, FAS 115 requires that investments in fixed interest securities and equities are classified into one of the three categories, namely, held to maturity securities,

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trading securities and available for sale securities. The first category of assets is reported at amortized cost, the second at fair value with unrealized gains and losses included in earnings and the third at fair value with unrealized gains and losses excluded from earnings but reported in a separate component of shareholders' equity. Property investments are reported at cost less accumulated depreciation and an allowance for any impairment in value.

60. There are three distinct methods of determining US GAAP liabilities depending upon whether FAS60 or FAS 97 or FAS 120 applies. The US GAAP has been developed in the background of US type of policies. There are difficulties in applying the system to other jurisdictions e.g. UK type unit linked plans or traditional with profit plans.

Section III: Impact of Fair Value Accounting

Asset and Liability Approach

61. In the case of GAAP statements several approaches to reporting profits are in use around the world. Broadly, these can be broken down into the following two types of method:
- (i) deferral and matching approaches; and
 - (ii) asset and liability measurement approaches.
62. Examples of deferral and matching approaches are US GAAP and Margins on Services (used primarily in Australia). The objective of a deferral and matching approach is to relate claim and expense costs to premium revenue. This generally has the effect of spreading profits over the lifetime of a contract as services are provided. In particular, acquisition costs are often deferred and amortised against future premium receipts.
63. As the name would suggest, an asset and liability measurement approach is one that measures the assets and liabilities of an entity and recognises profit through the relative change in these two quantities from one year to the next. The embedded value method would be an example of such an approach.
64. The DSOP requires that an asset and liability approach be used. The reasons for this are as follows (essentially these refer back to the original objectives of the IASB project):
- (i) An asset and liability approach will provide greater transparency

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- (ii) An asset and liability approach will produce accounts that are more understandable
- (iii) An asset and liability approach will make it easier for users to make comparisons between different sets of accounts.

Entity-Specific Value vs Fair Value

- 65. The International Accounting Standards definition of fair value is - “the amount for which an asset could be exchanged or a liability settled between knowledgeable, willing parties in an arm’s length transaction”. This definition refers to the amount that the enterprise would have to pay a third party at the balance sheet date to take over the liability.
- 66. The DSOP also offers an alternative to this “pure” definition of fair value, which it has named ‘entity-specific-value’. Entity-specific value is defined as: “the present value of the costs that the enterprise will incur in settling the liability with policyholders or other beneficiaries in accordance with its contractual terms over the life of the liability.”
- 67. It is worth noting that the IASB Issues Paper contained no mention of entity-specific value and referred only to fair value. This approach was taken on the assumption that fair value would have replaced the current reporting standard (IAS39) for the majority of financial instruments well before it was implemented for insurance contracts. At the time this looked likely, but in practice the proposals to introduce fair value more generally have proved controversial and are now unlikely to proceed ahead of the insurance project.
- 68. As a result the final version of the DSOP refers to both entity - specific and fair value but concludes the following : while IAS39 is in place, assets and liabilities arising under insurance contracts should be measured at entity - specific value; but if a successor standard to IAS39 introduces full fair value accounting for the majority of financial assets and liabilities then the IASB should consider requiring fair value for insurance contracts.
- 69. It is important to appreciate that fair value and entity-specific value are not fundamentally different concepts. They are very similar in the majority of respects and differ only in one or two specific areas. The DSOP gives a useful example of where entity-specific and fair value may lead to different results. The example refers to the treatment of claim expenses and identifies the following two aspects that will affect their level: the insurer’s strategy for determining the level of service provided to policyholders and its approach to claims management; and the insurer’s efficiency in providing that level of service and implementing its approach to claims management.

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70. Dealing with the first of these two points, the DSOP concludes that since the level of service and approach to claims management will impact on both the expense levels and lapse rates, both entity-specific and fair value should reflect the insurer's proposed approach in this area.
71. However, dealing with the second point, for a given level of service an insurer may be more or less efficient than the market and this should be reflected in the following way: entity-specific value should reflect the insurer's actual level of efficiency; and fair value should reflect the general level of efficiency in the market.
72. Although the comments we make in this paper are in the context of entity-specific value, we will assume that the terms entity-specific value and fair value are effectively interchangeable and for the remainder of this paper will only refer to the more commonly used fair value.

Prospective Discounted Cash Flow Approach

73. Fair value accounting will require a prospective approach to be taken. Cash flow items such as premiums, expenses and claims should be explicitly projected forward and discounted back to arrive at the value of liabilities.
74. The assumptions used to carry out these projections should be based on the company's expectation (i.e. the probability weighted average) of future experience. On the basis that the financial market's estimates will be more reliable than those of any individual company, market related assumptions (e.g. interest rates, inflation and asset prices) should be consistent with market data. Non-market related assumptions (e.g. lapse and expenses) should be determined by reference to factors such as historic information, the characteristics of the portfolio and industry data.
75. The starting point in the IASB proposal, before considering risk, is that cash flows should be discounted at the pre-tax risk-free rate of return. This rate should be based on: the current risk-free yield curve; and the currency of the cash flow.

Stochastic Projections

76. Traditionally, prospective calculations have been carried out on a deterministic basis. However, according to the DSOP, the calculation of insurance liabilities should, at least in principle, be performed stochastically. A key argument in favour of using stochastic

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techniques is that they are generally more robust than deterministic methods in valuing embedded options. In addition, with a stochastic approach allowance can be made for more complex features, such as the interaction of various market and non-market related assumptions (e.g. between lapse rates and economic conditions).

77. While the DSOP states that in principle stochastic methods should be used, it does acknowledge that for many contracts such a complex approach may not be necessary since deterministic methods would give results that would fall within an acceptable range.

Allowance for Non-market Risk

78. The prospective calculation approach described above is based on expected non-market assumptions. In practice, investors are generally risk averse and attach greater weight to an adverse outcome than a favourable one. Because of this, market prices tend not to be driven purely by the expected values of outcomes, but rather by a risk adjusted expected basis. This would suggest that some allowance should be made for risk in calculating the fair value of insurance liabilities.
79. The DSOP indicates that this allowance for risk can be made in either of the following ways: adjustment of the underlying cash flows; or adjustment of the rate used to discount cash flows.
80. So when valuing an insurance liability the risk preferences of investors should be allowed for either by increasing the liability cash flow or by reducing the discount rate. These adjustments for risk are often referred to as market value margins (MVMs) and although either of the above approaches is acceptable, there appears to be a preference for adjusting cash flows, on the basis that this is perhaps more transparent and easily understood.
81. When discussing risk the DSOP distinguishes between diversifiable and undiversifiable risk. Undiversifiable risks are those that tend to affect all investments. For example, macroeconomic factors such as changes in interest rates, inflation or unemployment would tend to fall into this category. They are called undiversifiable risks since, their impact cannot be removed by exposure to a larger number of entities.
82. Diversifiable risks are those that relate to specific companies rather than the market as a whole. For example, the share price of an airline will be correlated to the price of

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aviation fuel. These risks can theoretically be diversified away by investing in different companies that are not subject to this particular risk.

83. While it is accepted that allowance should be made for undiversifiable risk, financial economic theory would indicate that no allowance should be made for diversifiable risk, indeed this is consistent with many commonly used asset pricing models such as the Capital Asset Pricing Model (“CAPM”).
84. In contrast to this, the DSOP indicates that, for insurance liabilities, allowance should also be made for diversifiable risk. It believes that CAPM is based on idealized assumptions of highly efficient and liquid markets, which are not necessarily valid in less efficient markets such as that for insurance liabilities. This argument would seem to be borne out by market experience where, in reinsurance and securitisation deals, investors appear to demand a risk premium for taking on insurance related risks such as lapse or mortality risk that could, at least in theory, be diversified away.
85. While the DSOP indicates that allowance should be made for risk it does not answer the key question of what degree of allowance should be made, other than that it should be consistent with market risk preferences (i.e. the market price of risk).

Section IV: “Fair Value Accounting: Issues at Hand”

86. In this section, we consider various actuarial and other related issues, which need to be addressed in the event of moving towards fair value accounting. Specific issues arising out of regulatory environment in India are addressed in Section V.

Product Design and Pricing

87. The profit profiles differ considerably whether we adopt traditional method or fair value method, because pricing techniques for a traditional product are based on prudential statutory profits. It could be shown that the initial fair value liability is greater and hence initial profit is lower than what could be arrived under embedded value calculations. Presence of financial guarantees further complicate the process, as sufficient attention was not paid towards pricing and charging for financial guarantees. In many developing countries, including India, due to absence of availability of replicated portfolio, the problem is further compounded. Furthermore, what are the optimal criteria to be used in a value system for working out the product profitability is not clear. One view is that we could retain the current approach of basing pricing decisions; we have to consider the impact of arriving at fair value profits.

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88. With reference to product design, the following issues are worth mentioning:
- i. At present, the product design ensures the availability of minimum required profitability, at various points in the product life. How to ensure this under fair value accounting is an important issue.
- 89.
- ii. Similarly the capital requirements of the product are well established both under GAAP and prudential reporting systems. But under the fair value accounting, estimation of capital requirement on a continuous basis poses considerable challenges.
 - iii. The working party on fair value accounting further highlighted implications for product design of the unresolved issues in respect of allowance for future premiums and contract designing.

b. Prudential Valuation

90. The working group of the UK Faculty and Institute on fair value accounting suggested that movement towards a risk based capital approach for prudential valuation was desirable. In this context, the Group highlighted the importance of some of the information arising from the prudential valuation. We could see some amount of contradictions between the objectives of fair value accounting and treatment of some items under the same. To be specific, one of the objectives of the fair value accounting is to ensure greater comparability among various insurers. But, fair value accounts specifically ignore any mismatching between assets and liabilities. For example, if a fixed liability is matched with a more risky investment, additional risk will not be reflected in the GAAP accounts. This is to be addressed by providing additional information on resilience to market movements.
91. Furthermore, how prudential statutory profits will behave under fair value system is unclear. One must also ask the questions whether such profits are more or less under fair value system as against the traditional one and in addition what type of volatility we may witness in these products under fair value system. This will help us in devising a suitable mechanism to guard against the ill effects. But as of today, it is hoped that moving towards risk-based capital will address these issues also.

c. Asset Allocation

92. Asset allocation continues to be important in fair value accounting, even though the mismatching calculations will become more complex. In general, we allow for interest rate changes and price changes in mismatching calculations. If a replicating portfolio

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matches a liability and there are not many deviations between the actual and expected outcomes, then fair value profits emanate only from the release in the risk margins inherent in fair value accounting. Hence one can look for additional profits from the variations in assumptions and from mismatching of assets and liabilities. If an insurer tries to minimize the volatility of profits, he will try to invest as closely as possible in the replicating portfolio. In a with profit contract, the fair value of profits could be worked out on the basis of stochastic projections of bonuses. But the issue is to identify the replicating portfolio and in this task, stochastic projections seem to be of much use.

d. Risk Management

93. Risk management has become very sophisticated in the financial industry in general and insurance sector in particular. While the banking system bases risk management strategies on the basis of value at risk, which is having a shorter time horizon, for insurance companies longer horizon is required. Although differences in the time horizon lead to many issues, introduction of fair value accounting will bring about some convergence.
94. The working group emphasized that the introduction of risk based capital and fair value accounting together will give many advantages in risk management area, especially the following issues could be answered easily, viz., a. how much capital does the company need to operate efficiently? b. how one could manage regulatory capital requirement? and c. what advantages are available to insurers in transferring risk in an efficient manner. In this context, the Group also felt that internal risk management strategy based on fair value method is more useful. In this process, although the fair value method addresses market risk, operational risk and compliance risk are not given due importance and the recent experience suggests that additional measures are required to measure them.

e. System Issues

95. To perform fair value calculations, insurers have to develop necessary expertise. In India, companies are yet to master the skills required to workout the embedded calculation. Although it is revealed that fair value calculations and embedded value calculations have a number of similarities, there are some special areas, which need specific expertise, viz., to measure and mitigate various risks, positioning option pricing techniques to model products with embedded financial guarantees, to measure additional capital requirement, if any, consequent to the introduction of fair value accounting etc.. Furthermore, system should be in a position to calculate fair values at a given point of

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time, it should ideally have the features viz., ability to project and discount cash flows on a fair value basis, ability to perform stochastic projections and analyze the results produced from an appropriate asset model etc..Furthermore, projection of fair value profits is required on a continuous manner. All these requirements pose challenges to the insurance companies and in particular in India as many of them are in infant stage.

Section V: Issues for India

96. In this section we consider the issues arising from the regulatory framework in India for implementing Fair Value Accounting for life insurance companies. It is not surprising that most of these issues pertain to the changes required to the existing financial reporting framework, although there are logistical issues arising from the short period within which much of the developed world will move to Fair Value Accounting and the availability of actuarial and other skilled resources to carry out the work. We have identified a number of significant issues for India.
97. The existing regulatory and financial reporting framework is not aligned with Fair Value Accounting principles and requires substantial amendments.
98. The speed with which Fair Value Accounting is likely to become effective overseas together with the substantial changes already occurring in India leaves the industry, the professions and the regulator with inadequate time for considered implementation in India.
99. Compatibility with other financial services products – general insurance, mutual funds etc.
100. Section 49 issues – how to maintain the level of shareholder entitlements.
101. Taxation – how to ensure that changes do not result in an unintended change in the tax levied on policyholders and shareholders.
102. The private life insurance companies have significant shareholders from many countries including Australia, Canada, France, Germany, Holland, South Africa, UK, USA, UK and of course India.

Current Reporting Framework in India

103. For reference the following table summarizes the reporting framework for life insurers which currently operates in India.

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Insurance Act 1938

104. IRDA (Actuarial Report and Abstract) Regulations, 2000

Relates mainly to the disclosure of

- Assumptions
- Valuation liabilities
- Solvency margin
- Distributions to shareholders and policyholders
- Calculation of solvency margin.

IRDA (Assets, Liabilities and Solvency Margin of Insurers) Regulations, 2000

Schedule I: Valuation of assets modifies the value of assets as they appear in the financial statements for the purpose of calculating solvency margins places nil or reduced values on specified non investment assets.

Schedule IIA: Valuation of liabilities

105. Method of valuation required to be gross premium bonus reserve prudential assumptions to give a margin for adverse deviation recognises the cost of policy options.

Schedule IIIA: Solvency margin

106. Calculation of solvency margin as specified in Actuarial Report and Abstract

IRDA (Preparation of Financial Statements and Auditor's Report of Insurance Companies) Regulations, 2002

- Value of liabilities from Actuarial Report and Abstract
- Value of assets
- Fixed interest – historical cost amortised to redemption
- Equities – historical cost written down for net losses, gains carried to ‘Fair Value Change Account’ which may be distributed to policyholders only subject to IRDA directions
- Property – historical cost written down for net losses, gains carried to ‘Revaluation Reserve’ which may be distributed to policyholders only subject to IRDA directions
- Unlisted equity and derivatives – historic cost with provision for losses

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Actuarial Society of India Professional Standards

GN1: Appointed Actuary and Life Insurance Business framed to support prudential reserving under Schedule 11A of the Solvency Regulations

Draft GN2: Additional Guidance for Appointed Actuaries and other Actuaries involved in Life Insurance.

107. Asset/liability resilience reserves required as part of policy liabilities

Draft GN3: Financial Condition Report

108. No direct bearing on Fair Value Accounting

Accounting Standards

AS 13 Accounting for Investments

109. Traditional approach where assets are carried at the lower of cost and current realizable value

Existing Financial Reporting Framework is not Aligned with Fair Value Accounting

110. It would be possible for life companies to produce two sets of financial statements; the current statements for prudential purposes and a second set of statements prepared following the fair value principles. But to have any standing and recognition, the fair value statements must be codified in some way.

111. To avoid the inefficient production of two sets of statements, the preferred way is to produce realistic statements which are then supplemented with margins to give the desired level of prudential safeguard.

112. On the asset side, the current Indian financial reporting is based on the traditional use of the lower of the historic cost of the asset and its current realisable value. Unrealised gains are not recognised, but unrealised losses are, so the method is simply too conservative for realistic reporting and in some cases profit can be manipulated simply by selling selected assets to realise gains.

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113. For fixed income securities, amortised values are currently used in India which goes some way to addressing this issue by releasing some capital gain over the life of the security. Amortised values are flawed when there are capital losses in times of rising interest rates.
114. On the liability side, liabilities are determined using conservative assumptions. This needs to be replaced with a two tier process; first, liabilities are calculated with best estimate assumptions for realistic reporting, and second the liabilities are recalculated using assumptions with a margin for adverse deviation for establishing a prudential level of reserving.

Speed of Implementation

115. As noted earlier in this paper, it is likely that Fair Value Accounting will be adopted in Europe for 2005, which means comparatives will be needed for 2004. There are several of the new private life companies with overseas shareholders who may be required to produce statements on a fair value basis as early as next year. There is some urgency for India to have a compatible financial reporting framework if foreign investors are to be able to analyze life insurance operations in India.
116. The arguments and pressure for moving to fair value reporting are compelling. The issue for India is that the resources of the industry, the professions and the regulator are already strained by the liberalization of the insurance industry over the last few years. The iterations of drafting and consultation, together with the background of change already underway, will require further skilled manpower which is already in short supply.

Compatibility with other Financial Services Products

117. The fundamental call for Fair Value Accounting is so that investors and consumers of financial services products can compare and evaluate the performance of financial services companies both within that industry as well as with companies in other industries.
118. The introduction of Fair Value Accounting should be concurrent for life insurance companies, general insurance companies, mutual funds, deposit takers, public offer pension funds, banks and others. In India this will require coordination between several regulators including the IRDA, SEBI and the RBI.
119. The number of stakeholders is itself an issue as the amount of co ordination and consultation required and the difficulty in reaching conclusions increases dramatically as the number increases.

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Section 49 Issues

120. Section 49 of the Insurance Act 1938 restricts the declaration of bonus to policyholders and the payment of dividends to shareholders. These distributions are calculated with reference to the surplus emerging under the current financial reporting framework, that is with assets valued at historic cost and liabilities valued with prudential margins.
121. On a change to Fair Value Accounting, there will be a one off change in the amount of surplus at the date of implementation as well as an ongoing change to the future stream of surplus emerging and the portions attributable to policyholders and shareholders will change. This will have an impact on policyholders' reasonable benefit expectations, as well as investors' evaluation of the worth of the company.
122. Transitional arrangements will have to be considered, and the impact of the change to fair value accounting explained to policyholders and investors.

Taxation

123. Issues similar to the Section 49 issues arise for taxation. Taxation of life business in India is levied on surplus emerging. If the calculation of surplus changes, so will the calculation of tax.
124. Not only does this issue introduce the Income Tax Office as another stakeholder in the change to Fair Value Accounting, but also the need to avoid an unintended change in the tax levied on policyholders and shareholders.
125. There may be political or other practical reasons why the scope of Fair Value Accounting should not be extended to the Life Insurance Corporation.
126. Similar considerations may also arise with the public general insurance companies and other statutory insurers such as the Post Office Life Insurance Company and state insurance companies.
127. The private life insurance companies have significant shareholders from many countries including Australia, Canada, Germany, Holland, South Africa, UK, USA, UK and of course India. If India does not have a codified standard for Fair Value Accounting, these foreign shareholders will have their own preferences for the preparation of financial statements which will make it more difficult to compare and analyze Indian life insurance companies.

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Conclusions

128. The preparations for the movement towards Fair Value Accounting are going on at a rapid pace at the international level and India cannot be slow or indifferent to respond, particularly with the wide representation of major multinational insurers operating in joint ventures in the country.
129. There is an important role for the actuarial profession to play in being proactive and showing leadership in the design and implementation of this development.
130. It is also clear that the actuarial profession cannot work in isolation on Fair Value Accounting and that there needs to be a multi-stakeholder working group with representatives from Actuarial Society of India, Institute of Chartered Accountants of India, IRDA, SEBI, RBI, Income Tax Department, life insurers, general insurers and industry bodies, such as FICCI/CII.

Appendix A : Summary of DSOP

Chapter 1: Scope

Principle 1.1 - Scope

A future International Financial Reporting Standard on Insurance Contracts (the Standard) should prescribe the accounting and disclosure in general purpose financial statements by insurers and policyholders for all insurance contracts, other than those excluded by principle 1.5. The Standard should not address other aspects of accounting by insurers or policyholders (except as specified in principles 4.9, 7.4, 10.1, 10.2, and 11.2).

Principle 1.2 - Definition of Insurance Contract

Insurance contracts should be defined as follows in all International Financial Reporting Standards and International Accounting Standards.

An insurance contract is a contract under which one party (the insurer) accepts an insurance risk by agreeing with another party (the policyholder) to compensate the policyholder or other beneficiary if a specified uncertain future event (the insured event) adversely affects the policyholder or other beneficiary (other than an event that is only a change in one or more of a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index or similar variable).

Principle 1.3 - Amount of Insurance Risk Required for a Contract to Qualify as an Insurance Contract

A contract creates sufficient insurance risk to qualify as an insurance contract if, and only if, there is a reasonable possibility that an event affecting the policyholder or other beneficiary will cause a significant change in the present value of the insurer's net cash flows arising from that contract. In considering whether there is a reasonable possibility of such significant change it is necessary to consider both the probability of the event and the magnitude of its effect.

Principle 1.4 - Changes in the Level of Insurance Risk

A contract that qualifies as an insurance contract at inception or later remains an insurance contract until all rights and obligations are extinguished or expire. If a contract did not qualify as an insurance contract at inception, it should be subsequently reclassified as an insurance contract if, and only if, a significant change in the present value of the insurer's net cash flows becomes a reasonable possibility (see principle 1.3)

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Principle 1.5 - Scope Exclusions

Although the following items arise under contracts that may meet the definition of insurance contracts, they should be excluded from the scope of the Standard:

- i. Financial guarantees (including credit insurance) measured at fair value;
- ii. Product warranties issued directly by a manufacturer, dealer or retailer;
- iii. Employers' assets and liabilities under employee benefit plans (including equity compensation plans);
- iv. Retirement benefit obligations reported by defined benefit retirement benefit plans,
- v. Contingent consideration payable or receivable in a business combination; and
- vi. Contractual rights or contractual obligations that are contingent on the future use of, or right to use, a non-financial item (for example, certain licence fees, royalties, lease payments and similar items)

Principle 1.6 - Bundled Contracts

An insurer or policyholder should not account separately for the components of an insurance contract that bundles together:

- i. An insurance element and a non-derivative investment element; or
- ii. An embedded derivative and a host insurance contract.

Chapter 2: Overall Approach, Recognition and Derecognition

Principle 2.1 - A single recognition and measurement approach for all forms of insurance
There should be a single recognition and measurement approach for all forms of insurance contracts, regardless of the type of risk underwritten.

Principle 2.2 - Recognition

Insurance assets and insurance liabilities are assets and liabilities arising under an insurance contract. An insurer or policyholder should recognise:

- i. An insurance asset when, and only when, it has contractual rights under an insurance contract that result in an asset; and
- ii. An insurance liability when, and only when, it has contractual obligations under an insurance contract that result in a liability.

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Principle 2.3 - Derecognition

An insurer or policyholder should derecognise an insurance asset or insurance liability or a component of an insurance asset or insurance liability when, and only when, it no longer has the contractual rights or the contractual obligations that resulted in that insurance asset, insurance liability or component.

Chapter 3: Measurement: Overall issues

Principle 3.1 - Measurement Objective

While IAS 39, “Financial Instruments: Recognition and Measurement”, is still in place, insurance liabilities and insurance assets should be measured at entity-specific value. Entity specific value represents the value of an asset or liability to the enterprise that holds it, and may reflect factors that are not available (or not relevant) to other market participants. In particular, the entity-specific value of an insurance liability is the present value of the costs that the enterprise will incur in settling the liability with policyholders or other beneficiaries in accordance with its contractual terms over the life of the liability. If a successor standard to IAS 39 introduces fair value measurement for the substantial majority of financial assets and liabilities, IASB should consider introducing fair value measurement for all insurance liabilities and insurance assets. Fair value is the amount for which an asset could be exchanged or a liability settled between knowledgeable, willing parties in an arm’s length transaction. In particular, the fair value of a liability is the amount that the enterprise would have to pay a third party at the balance sheet date to take over the liability.

Principle 3.2 - Interaction with Measurement of an Insurer’s Non-Insurance Financial Assets

The entity-specific value or fair value of insurance liabilities should not be affected by the type of assets held or by the return on those assets (unless the amount paid to policyholders is directly influenced by the return on specified assets, as with certain performance-linked contracts, as discussed in chapter 7).

Principle 3.3 - Neutrality

Overstatement of insurance liabilities in general purpose financial statements should not be used to impose implicit solvency or capital adequacy requirements.

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Principle 3.4 - Annual Basis of Accounting

Deferred and fund methods of accounting should not be used.

Chapter 4: Estimating the Amount and Timing of Cash Flows

Principle 4.1 - Expected Present Value of all Future Cash Flows

The starting point for measuring insurance assets and insurance liabilities should be the expected present value of all future pre-income-tax cash flows arising from the contractual rights and contractual obligations associated with the closed book of insurance contracts. Those cash flows include estimates of future:

- i. Payments to policyholders under existing contracts, and related claim handling expenses;
- ii. Premium receipts from policyholders under existing contracts, including retrospective adjustment to premiums;
- iii. Future policy loans to policyholders, and repayments by policyholders of principal and interest on current and future policy loans;
- iv. Transaction-based taxes and levies relating to existing contracts;
- v. Policy administration and maintenance costs;
- vi. Recoveries, such as salvage and subrogation, on unsettled claims and potential recoveries on future claims covered by existing insurance contracts.

Principle 4.2 - Renewals

In applying principle 4.1, cash flows arising from the contractual rights and obligations associated with the closed book of insurance contracts should include cash flows from future renewals to the extent, and only to the extent, that:

- i. Their inclusion would increase the measurement of the insurer's liability; or
- ii. Policyholders hold uncancellable renewal options that are potentially valuable to them.

Principle 4.3 - Cash Flows Excluded

The following future cash flows should not be included in determining the expected present value of future pre-tax cash flows arising from the closed book of insurance contracts:

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- i. Income tax payments and receipts;
- ii. Cash flows arising from future insurance contracts;
- iii. Payments to and from reinsurers;
- iv. Investment returns from current or future investments (except for certain performance-linked contracts, see chapter 7); and
- v. Cash flows between different components of the reporting entity.

Principle 4.4 - Assumptions

In determining entity-specific value, each cash flow scenario used to determine expected present value should be based on reasonable, supportable and explicit assumptions that:

- a. Reflect
 - i) All future events, including changes in legislation and future technological change, that may affect future cash flows from the closed book of existing insurance contracts in that scenario;
 - ii) Inflation by estimating discount rates and cash flows either both in real terms (excluding general inflation, but including specific inflation) or both in nominal terms; and
 - iii) All entity-specific future cash flows that would arise in that scenario for the current insurer, even cash flows that would not arise for other market participants if they took over the current insurer's rights and obligations under the insurance contracts;
- b. In relation to market assumptions, are consistent with current market prices and other market-derived data, unless there is reliable and well-documented evidence that current market experience and trends will not continue. Such evidence is likely to exist only if a single, objectively identifiable, event causes severe and short-lived disruption to market prices. In such exceptional cases, the assumptions should be based on this reliable evidence; and
- c. In relation to non-market assumptions, are consistent with the market assumptions discussed in (b) and with the most recent financial budgets/forecasts that have not current and not intended as neutral estimates of future events, the insurer should adjust those assumptions. If the budgets and forecasts are deterministic, rather than stochastic, the entire package of scenarios should be consistent with the budgets and forecasts.

Principle 4.5 - Assumptions

When fair value is not observable directly in the market, fair value should be estimated by using principle 4.4, but with the following two differences.

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- i. Fair value should not reflect entity-specific future cash flows that would not arise for other market participants if they took over the current insurer's rights and obligations under the insurance contract.
- ii. If there is contrary data indicating that market participants would not use the same assumptions as the insurer, fair value should reflect that market information.

Principle 4.6 - Overheads

The future cash flows used to determine entity-specific value or fair value should include overheads that can be directly attributed to a book of insurance contracts, or allocated to it on a reasonable and consistent basis. These overheads should include a reasonable charge for the consumption of all assets used to generate the cash flows concerned. All other overheads should be excluded.

Principle 4.7 - Transaction Costs

The fair value of an insurance liability (insurance asset) should be determined without adding (deducting) transaction costs that would be incurred on a settlement (sale).

Principle 4.8 - An Insurer's Own Credit Standing

The entity-specific value of an insurance liability should not reflect the insurer's own credit standing. Conceptually fair value should reflect the insurer's own credit standing, but this would have practical implications that need further investigation.

Principle 4.9 - Recoveries Related to Claims

Until rights to recoveries qualify for recognition as an asset under the following paragraph, an insurer should:

- i. Include potential recoveries from salvage and subrogation in estimated future cash flows from existing insurance contracts; and
- ii. Not recognise those rights to recoveries as separate assets.

An insurer should recognise rights to recoveries, such as salvage rights and subrogation rights, as an asset when, and only when:

- i. The insurer controls those rights, as a result of past events;
- ii. It is probable that the economic benefits associated with those rights will flow to the insurer; and

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- iii. The insurer can measure those rights reliably. An insurer should measure those rights (including salvage property acquired by exercising those rights) at entity-specific value if insurance liabilities are measured at entity-specific value, and at fair value if insurance liabilities are measured at fair value.

Principle 4.10 - Provisions for Catastrophes and Equalisation

An insurer should not recognise catastrophe provisions relating to possible future claims beyond the end of the contracts included in the closed book. Similarly, an insurer should not recognize equalisation provisions to cover random fluctuations of claim expenses around the expected value of claims.

Principle 4.11 - Acquisition Costs

Acquisition costs should be recognised as an expense when they are incurred.

Chapter 5: Adjustments for Risk and Uncertainty

Principle 5.1 - Risk and Uncertainty

The entity-specific value and fair value of insurance liabilities and insurance assets should always reflect risk and uncertainty.

Principle 5.2 - Where Should Risk and Uncertainty be Reflected

Adjustments for risk and uncertainty should be reflected preferably in the cash flows, or alternatively in the discount rate(s), without any double counting.

Principle 5.3 - Risk Preferences

Estimates of both entity-specific value and fair value should reflect the market's risk preferences, inferred, as far as possible, from observable market data. Inferences about the market's risk preferences should be determined using a consistent methodology over time. Changes in the inferred level of risk preferences should be made only in response to observable market data.

Principle 5.4 - Diversifiable and Undiversifiable Risks

The entity-specific value or fair value of an insurance liability or insurance asset should always reflect both diversifiable and undiversifiable risk.

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Principle 5.5 - Unit of Account

Measurement of insurance contracts should focus on books of insurance contracts that are subject to substantially the same risks, rather than on individual insurance contracts. Measurement of the book of contracts should reflect all benefits of diversification and correlation within that book of contracts (to the extent that they are readily determinable), but should not reflect the benefits of diversification and correlation outside that book of contracts.

Principle 5.6 - Options and Guarantees Contained in Insurance Liabilities and Insurance Assets

Option pricing models should be used to measure options and guarantees contained in insurance contracts.

Principle 5.7 - Reliability

In the exceptional cases when no reliable estimate can be made of the market value margin at initial recognition of an insurance liability or insurance asset, an insurer should set the market value margin at a level that leads to no net underwriting profit or loss from the contract, until a reliable estimate of the market value margin becomes possible.

Principle 5.8 - Illiquidity and Market Imperfections

Both fair value and entity-specific value should exclude the effect of illiquidity and market imperfections, unless there is persuasive evidence that enables these items to be quantified by reference to observable market data.

Principle 5.9 - Foreign Currency Risk

When all the future cash inflows and outflows from an insurance contract are denominated in a single foreign currency, the entity-specific value and fair value of that insurance contract should not reflect foreign currency risk arising from the possibility of future changes in the foreign exchange rate for that currency (consistent with IAS 21, The Effects of Changes in Foreign Exchange Rates). When future cash flows are in more than one currency, or where the policyholder can choose the currency in which premiums or benefits are paid, at a predetermined exchange rate, entity-specific value and fair value should reflect the resulting foreign exchange risk.

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Chapter 6: Discount Rates

Principle 6.1

The starting point for determining the discount rate for insurance liabilities and insurance assets should be the pre-tax market yield at the balance sheet date on risk-free assets. That starting point should be adjusted to reflect risks not reflected in the cash flows from the insurance contracts. The currency and timing of the cash flows from the risk-free assets should be consistent with the currency and timing of the cash flows from the insurance contracts. Risk free assets are those assets with readily observable market prices whose cash flows are least variable for a given maturity and currency.

Principle 6.2 - Foreign Currency Cash Flows

Estimated cash flows in foreign currency should be discounted using the appropriate discount rate for the foreign currency. The resulting present value should be translated into the measurement currency using the spot rate at the reporting date.

Chapter 7: Performance Linked Contracts

To be completed

Chapter 8: Reinsurance

Principle 8.1 - Accounting by Reinsurers and Cedants

A reinsurance contract should be defined as an insurance contract issued by one insurer (the reinsurer) to indemnify another insurer (the cedant) against losses on an insurance contract issued by the cedant.

Principle 8.2 – Accounting by Reinsurers and Cedants

Reinsurers and cedants should apply all the recognition, derecognition and measurement requirements in Principles 2.1-7.6 to all reinsurance contracts.

Principle 8.3 - Gross Presentation for Reinsurance

If a reinsurance transaction does not qualify for derecognition of the related direct insurance liability under principle 2.3, a cedant should present:

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- i. An insurance asset arising under reinsurance contracts as an asset, rather than as a deduction in measuring the related direct insurance liability; and
- ii. Reinsurance premiums as an expense and the reinsurer's share of claims expense as income.

Chapter 9: Measurement of Direct Insurance Contracts by Policyholders

Principle 9.1

A policyholder should apply principles 3.1-7.6 in measuring its contractual rights and obligations under a direct insurance contract.

Chapter 10: Other Assets and Liabilities

Principle 10.1 - Property

An entity whose primary business is issuing insurance contracts should measure its:

- i. Investment property using the fair value model in IAS 40, Investment Property; and
- ii. Owner-occupied property using the allowed alternative treatment in IAS 16, Property, Plant and Equipment.

Principle 10.2 - Deferred Tax

An entity whose primary business is issuing insurance contracts should use discounting in measuring its deferred tax assets and deferred tax liabilities.

Chapter 11: Reporting Entity and Consolidation

Principle 11.1 – Separate Statutory Funds

The insurer, comprising both policyholder and shareholder interests, is a single reporting entity which should prepare a single set of financial statements. In consequence:

- i. The insurer's financial statements should include the assets, liabilities, income and expenses of any separate statutory funds associated with its insurance contracts; and

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- ii. The effect of transactions between separate policyholder funds of an insurer should not be recognised in the financial statements as assets, liabilities, income or expenses. Income and expense from transactions between policyholder funds and shareholder funds should be eliminated. However, where such transactions affect the relative interests of policyholders and shareholders in the assets held in the respective funds, the effect of such transactions should not be eliminated in determining the balance sheet effect.

Principle 11.2 - Transferee Accounting for a Block of Insurance Contracts

An insurer should not recognise goodwill when it acquires a block of insurance contracts in a transaction that is not a business combination as defined in IAS22, Business Combinations. The insurer should recognise any difference between the entity-specific value of fair value of the block of contracts at the transaction date and the amount paid as income or expense in the income statement.

Principle 11.3 - Horizontal Groups

The Standard should not prescribe whether a horizontal group that includes an insurer should prepare combined financial statements covering all the entities under unified management.

Chapter 12: Interim Financial Reports

Principle 12.1

The Standard should not contain guidance on the application of IAS 34, Interim Financial Reporting, to insurance contracts.

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About the Author :

V. Rajagopalan

I am a Fellow of the Actuarial Society of India and a Fellow of the Institute of Actuaries. I am with the ICICI Prudential Life Insurance Company Limited as the Chief Actuary. I had a long stint in the Life Insurance Corporation of India during which I handled assignments relating to Actuarial, Investment, IT, Pension and Group Schemes, Underwriting and Marketing functions at different places. I have worked overseas in Zambia and Bahrain with insurance companies and in Kenya with the Commissioner of Insurance. I am also a Fellow member of the Insurance Institute of India and an Associate of the Society of Actuaries.

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About Author :

Dr. R. Kannan

Dr. R. Kannan is the Chief Actuary and Chief Financial Officer of the SBI Life Insurance Company Ltd., in Mumbai since April 2001. Since March 2002, he is the Appointed Actuary of the Company. He is on deputation from the Reserve Bank of India, where he is the Chief General Manager in the Department of Economic Analysis and Policy. During 1994-98, he was Advisor in the International Monetary Fund and during 1992-94, he was Advisor to Governor, Bank of Mauritius.

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About Author :

Mike Wood

Mike Wood BSc(Eng) FIA FIAA
Chief Actuary
AMP Sanmar Assurance Company Limited

Mike is an actuary with 30 years experience in life insurance and pension funds in South Africa , Australia and more recently, India. He qualified as an actuary with the Institute of Actuaries (London) in 1982 and is also a member of the actuarial associations of India, Australia, South Africa and New Zealand.

Before taking up his current role with AMP Sanmar, Mike headed AMP's actuarial pensions consulting services in Australia. He advised many large pension funds and also headed a development aid project for AusAID, the Australian government aid agency. This project was to advise and assist the Government of Tonga in converting its unfunded civil service pension scheme to a contributory accumulation fund.

Mike has also been the appointed actuary of a niche direct marketing and group life insurance company in Sydney

At Westpac Life he was chief manager, superannuation with responsibility for a wide range of individual and group superannuation products. Westpac Life was the life insurance arm of Australia's Westpac Banking Corporation where Mike gained extensive inside experience of a successful start up bancassurance operation.

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About the Author :

Sanket Kawatkar

Sanket graduated from Sydenham College, Bombay University in 1995 and qualified as a Fellow of the Institute of Actuaries in 2000. He is an Affiliate Fellow of the Actuarial Society of India.

Sanket has worked for AIG for several years. He joined American International Assurance (AIA) in Singapore in 1995. He was involved in various tasks including product development & launch – including unit linked products, experience analysis, statutory reporting and monthly valuations. Reporting to the Appointed Actuary, he was also involved in a few high profile projects such as the review and reduction in bonuses and the subsequent communication to policyholders, and the re-pricing of products etc.

Sanket returned to India in 1999 and worked with AIG India Liaison Office in Mumbai as an Actuarial Consultant for about a year before joining Tata AIG Life in 2000. While in India, Sanket was a key member of the team involved in the IRDA licensing process. He was responsible for analysing the regulatory developments, developing Tata AIG's product strategy and providing guidance to other members of the team. He was also involved in designing the Agency Compensation Structure for his Company.

Sanket has represented Tata AIG Life in the Legal & Financial Sub-Committee set up under the Life Insurance Council.

After joining Watson Wyatt in May, 2002, Sanket was involved in an internal project on fair values and its impact on reported profits in our Reigate office. Whilst in the UK, he was also involved in a UK statutory compliance job for a UK life company and a financial restructuring project for two UK life companies.

He has been involved in professional activities of the Actuarial Society of India and has also been an examiner/marker for the examinations by the Actuarial Society of India as well as by the Institute of Actuaries.