Capital issues for new life insurers in India

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Abstract

This paper discusses some of the important factors that influence the capital requirements for a new life insurance company in India.

Keywords

Captial, Surplus, Tax, Participating, Non-Participating, Margins for Adverse Deviations

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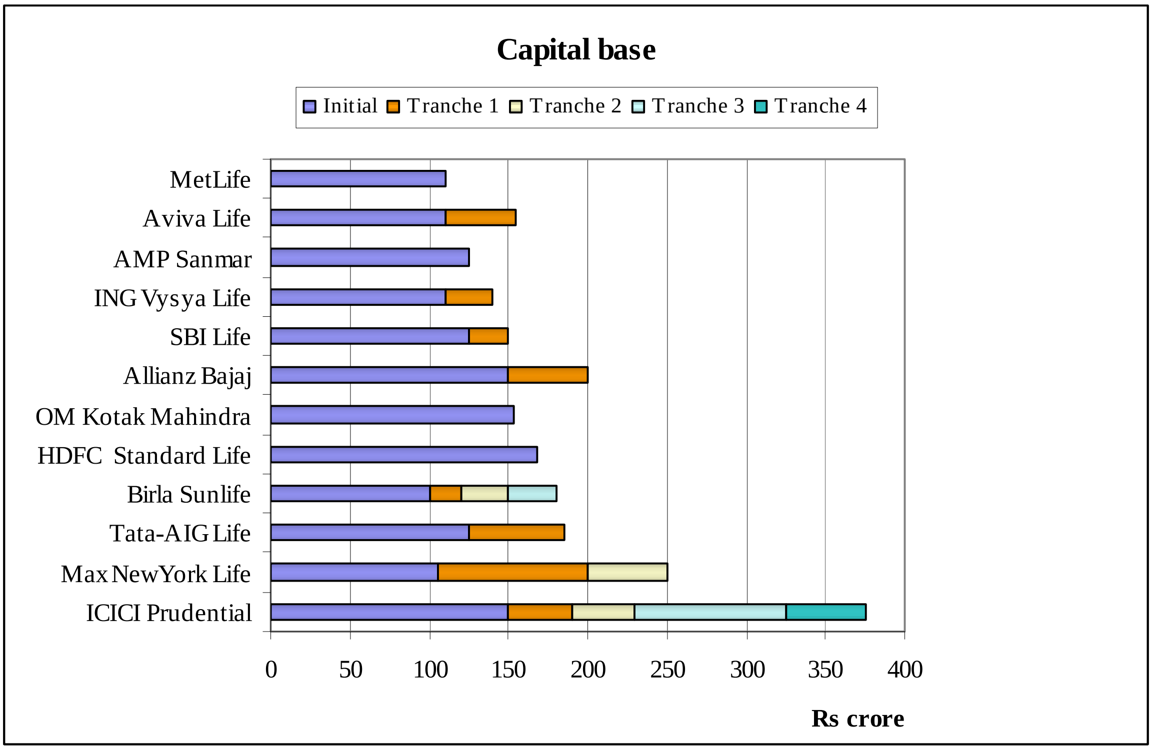
Introduction

Following the entry of the private players into the life insurance market, we have seen significant contributions of capital into the various joint-venture companies. The table below shows the amounts of capital injected into the various joint-venture companies at the time of writing based on press reports that we have been able to source.



As can be seen from the table, several of the players have already injected capital significantly above the Rs.100 crores minimum specified by regulation. Although there was some concern initially amongst a few potential entrants over the relatively high levels of initial capital requirement set by the IRDA, the above figures indicate that the actual capital requirement is much more than the minimum set by the regulations.

Furthermore, according to the press statements made by various players, it looks as if significant amount of further capital will be injected. The table below shows current capital levels and also “expected” levels where the “expected” levels have been based on the statements to the press on this issue that we have been able to source.

(figures in Rs. Crores)

Company	**Current capital base**	**Expected in 5 years**
ICICI Prudential	375	n/a
Max New York Life	250	550
Tata AIG Life	185	n/a
Birla Sun Life	180	500
HDFC Standard Life	168	500
OM Kotak Mahindra	153	n/a
Allianz Bajaj	200	300
SBI Life	150	n/a
ING Vysya Life	140	n/a
AMP Sanmar	125	n/a
Aviva Life	155	300
MetLife	110	450

* Source : Press Articles

Clearly, given the substantial amounts of capital that the players are seeking to inject, it is important to understand the factors that can have an impact on the level of capital required. There could be the following broad factors (which we acknowledge are by no means exhaustive) that may affect the level of capital required:

- Expenses
- Regulations
- Product mix & nature of products
- Business persistency
- Valuation assumptions

In this paper, we discuss the sensitivity of the capital requirement to some of these factors. More specifically, we focus on the following factors:

- Regulations
- Business persistency
- Valuation assumptions – in particular, the Margins for Adverse Deviations (MAD) in the withdrawal assumptions

We also discuss the impact the product mix & nature of product have on the capital requirements.

The "Base case"

Purely for the purposes of illustration, we have shown a base case with the following broad features:

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Total Premium (Rs.Crores)	32	86	169	273	445	661	899	1,228	1,598	2,116
FY Expense ratio	130%	120%	110%	100%	90%	78%	63%	45%	58%	41%
Renewal Expense ratio		64%	56%	46%	38%	28%	17%	13%	9%	8%

- For product mix, we have assumed that the portfolio is composed of regular premium with-profits endowment and moneyback, regular premium non-profit term and riders.

- We assumed that shareholders are entitled to one-ninth of the cost of bonus from participating business but the entire surplus from non-participating business. For riders, we assumed that the classification of rider follows that of the base plan that they were attached to. So riders attached to term plans were classified as non-participating while those attached to endowment and moneyback were classified as participating.

- We have assumed that shareholder transfers are made to zeroise any deficit in the life funds and to finance the cost of bonus.

- For taxation, we have taxed the shareholders' fund on the basis of 35% of the investment income earned. We have taxed the life funds at 12.5% of the surplus arising at the end of each year with the assumption that any transfers that are made from the shareholders' fund into the life funds enter into the calculation of surplus. We have further assumed that no carry-forward of tax losses is permitted.

(We would point out in passing that these are just a set of assumptions and do not necessarily represent the authors’ views or interpretation of the current tax laws in India or on the matter of transferring shareholder fund monies into the life fund.)

- It is assumed that the transfers out of the life fund to the shareholders fund are retained in the shareholders fund and are available to support the capital needs. Also, it is assumed that any capital needs are assessed in the block of Rs. 50 crores and the capital requirement is calculated on a present value basis. In reality, the actual capital injection may be made as and when required, in which case, the amount of capital injections may be higher.

On the above basis, based on the models developed by us for business planning purposes, we obtained a total capital requirement of Rs. 288 crores.

Regulatory sensitivities

Sensitivity 1: Historic surplus distribution rules

In this scenario, we have assumed that the maximum surplus distribution to shareholders is restricted to 7.5% of the cost of surplus distributed in the par fund and 7.5% of the surplus in the non-par fund (i.e. the situation before the Insurance Regulatory and Development Authority (Distribution of Surplus) Regulations, 2002 came into force). This results in a marginal reduction in the total capital requirement of the company.

Under this sensitivity, the shareholders are entitled to only 7.5% of the surplus from the non-participating business as compared to the earlier 100%. The remaining surplus is now available to participating policyholders to enhance their bonus rates or to reduce the deficit that would otherwise arise. The bonus rates are already set at the market competitive levels and hence the ‘extra’ surplus retained within the life fund is now available as an internal source of capital. With the extra surplus being retained within the life fund rather than in the shareholders’ fund as in the base scenario, the interest on such surplus is now being taxed at a lower rate than under the base scenario. This second order effect has an impact on the capital requirement. Consequently, the capital requirement reduces.

The quantum of reduction is only marginal as the proportion of non-participating business is relatively small in the product mix.

Sensitivity 2: Changes to the rider classification rules

There has been much debate within the industry regarding the classification of riders and consequently the surplus distribution rules for them. We have therefore, studied the impact on capital if all the riders are classified as non-participating in this sensitivity. The resulting capital requirement increases.

Again, the proportion of surplus that is transferred to shareholders' fund increases from 7.5% to 100% on all riders attached to participating endowment and moneyback plans as they are now classified in the non-par fund. As more surplus is now being retained in the shareholders' fund rather than in the life fund and the interest on which is now being taxed at a higher rate, the net (after tax) surplus is lower than in the base scenario and this requires an increases in the capital.

Sensitivity 3: Changes to the tax rules

Tax is a particularly grey area and there may soon be tax reforms as well. We show here the impact on capital if -

(i) Tax loss carry forwards are permitted in the life fund and

(ii) The transfers made from the shareholders' fund to the life fund to meet the deficit and to declare bonuses are not included in the calculation of surplus within the life fund. Shareholder fund tax is assumed to be unchanged.

The capital requirement under this scenario is Rs. 246 crores.

We are analysing the capital needs of a start-up life company. Thus, there are expected to be substantial expense overruns for some years. These expense overruns result in a deficit / increase the deficit / reduce the surplus in the life fund. Under this scenario, the tax losses can be carried forward and set off against future years' taxable surpluses. This results in an overall reduction in the tax liability over the years. Consequently, the capital requirement reduces.

Sensitivity 4: Business Persistency

We have seen some insurers experiencing lower than expected levels of persistency. This results in a loss of potential future profits as well as inability to recoup the high acquisition costs when the asset shares are negative. Obviously, the statutory minimum surrender value as well as the surrender values actually being declared would also have an impact on the potential loss upon early termination of the policies.

The business persistency is of vital importance for a new company as it already has substantial expense overruns for some years.

As low as 15% worsening of business persistency (i.e. existing persistency rates * 0.85) has a relatively high impact on the capital requirement. The new capital requirement is Rs.296 crores. Any drastic change in the level of withdrawals / lapses will have a significantly high impact on the capital requirement. Given the nature of the products sold and the high initial costs assumed in the model, any early termination results in a loss for the company as long as the asset shares are negative. It, therefore, requires the company to inject additional capital to finance its operations.

Sensitivity 5: Valuation Assumptions – in particular, the MAD in the withdrawal assumption

In India, we have adopted the Gross Premium Valuation method. The regulations require that all the cash-flows should be included in the reserves calculation. However, at the same time, all the actuarial assumptions have to be conservative with an inclusion for the margins for adverse deviation (MAD).

We have seen that for obvious reasons, withdrawal rates are the most difficult to predict and hence to assume in the gross premium valuation. Also, it is important to assume MAD in the right direction (i.e. the one that results in an increase in the reserves). If we assume zero withdrawal rates for the purpose of valuation, the reserves required increases substantially and so does the capital requirement.

Given the uncertainty surrounding the likely level of withdrawal rates that will be experienced, this has proved to be one of the most important factors in the valuation assumptions, which has a huge impact on the total capital requirements of the company.

Product mix and nature of product

Sensitivity 6: Greater emphasis on unit-linked products

We have seen several players launch unit-linked products and expect to see further launches particularly given the recent surplus distribution changes.

The capital requirement declines sharply if a front-end loaded unit-linked product is introduced in place of the traditional plans. The front-end loaded nature of the unit-linked product makes it particularly capital-efficient. Also, as the investment, expenses and mortality risks are transferred back to the policyholders, the reserves as well as solvency margin requirements reduce. This too reduces the capital requirement.

Sensitivity 7: Greater emphasis on single premium products

Single premium products may also result in a lower capital requirement. Instead of the regular premium participating endowment, if we include a single premium bond (non-participating), this may change the capital requirement substantially.

If the single premium bond policies are backed up by government securities of an appropriate yield & term to maturity and the death benefit provided under such a bond is relatively low, the reserves and solvency requirement as a % of the single premium received may be relatively low. Single premium products may also result in a substantial savings in the cost of administration. The combined effect may result in an overall lower capital requirement.

We would like to highlight that if the single premium business is sold backed with mismatched assets, the business could potentially require substantially more capital, particularly as it is written on a non-participating basis and companies are not in a position to adjust the bonus rates as in the case of participating plans. In any case, even if the interest rates remain stable, the reserves requirement in this situation could be higher, resulting in a higher capital requirement than the single premium business backed by fully matched assets portfolio as described above.

Conclusions

The total capital requirement for a life insurer is influenced by internal as well as external factors. These factors may have conflicting influences and the ultimate impact on the capital requirement will depend upon their relative strength. Hence, it is prudent to regularly check the capital availability and requirement based on an individual insurer's own business plans & expense models.