LIC IPO:

UNDERSTANDING VALUATION OF A LIFE INSURER

BY VALUENABLE PVT. LTD

NOV 2021

The Backdrop:

Indian life insurance industry for years has been synonymous with Life Insurance Corporation of India (LIC). Two decades after it lost its monopoly position when private players were allowed in the industry, in most metrices of significance, LIC still rules the roost. It also remains one of India's most valued and trusted brands.

In FY'21, LIC had 66% market share on New Business Premium (NBP) basis. On individual new business premiums, the market share was 50%. LIC sold almost 21 Mn. new policies in FY'21, i.e., 3 out 4 policies sold in India. It has assets under management of Rs. 37 trillion!

LIC is wholly owned by the Government of India who is now divesting its stake in this behemoth through an IPO. Reports are that the ***government targets to raise about Rs. 1 Trillion for a 10% offer for sale. That puts LIC's value at Rs. 10 trillion*** - among the most valued (in monetary terms!) in the country.

The purpose of this post is to deconstruct valuation of life insurance companies with specific focus on LIC's expected valuation.

Valuing a Life Insurance Company: 101

Life insurance business by nature is long term. Incomes (including investment income) and costs (including benefit payouts) are not uniform over time.

- In the initial years, cost far exceed income
- Over the policy term there is a break-even and post that incomes exceed costs

Moreover, cashflows on a policy/contract/cohort which is sold, have uncertainties.

- How many policyholders will die and when ?
- How many people will continue paying premiums ?
- How many people will surrender their policies ?

The profitability of a life insurer, hence, will be very difficult to understand using simple accounting profit measures (Income - Expense).

A life insurer would generally make a loss (or very little profit) in the first year of selling the policy with the expectation that profits in the future would surpass this loss.

Value of New Business/ New Business Margin - More Appropriate Profitability Measure

Considering the complexities mentioned, life insurers use an expected present value approach to measure profitability. They project all cashflows (premiums, expenses, benefit payments), superimposing probabilities(of death, premium discontinuance etc.) and compute future profits. The future profits are then discounted to present day and first year losses are adjusted against the same.

This net amount is called the *Value of New Business (VNB)* and when expressed as a proportion of one annual premium, one gets the *VNB Margin* or the *New Business Margin (NBM)*, which is the commonly used measure of life insurers' profitability.

This is only one element of life insurers' value - The value added by the business by writing new business/policies or acquiring new customers. ***What about the value of the policies sold in the past that are still in force with insurer ?***

Embedded Value (EV) - Value Accruing From What Has Been Sold

Given the long term nature of the policies, the insurer derives value from policies which are on its books. Many such policies would just have positive cashflows in future as explained before.

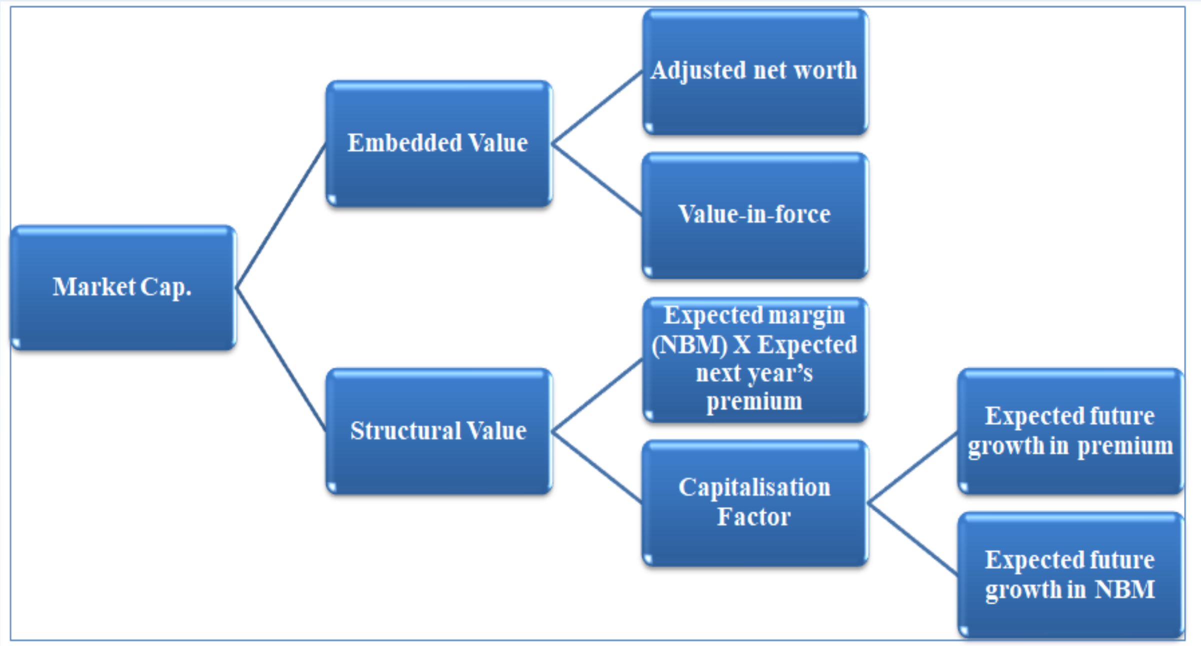
The present value of expected future profits of the "back-book" is called Value-In-Force (VIF).

After all the new terms we introduced, the missing piece is the familiar *Net Worth*, i.e. capital invested + accumulated previous year surpluses (deficits) less dividends paid out.
Embedded Value (EV) is simply the Value-In-Force (VIF) + Net Worth

Bringing It All Together - Value Of Life Insurance Company

With that background, it would be apparent to you that the value of a life insurance company is effectively the sum of two broad factors - 1) Value of (and from) what it has sold in the past (Embedded Value), 2) Value of what it COULD sell in future (Structural Value).

The diagram below fleshes out the same:



Capitalisation Factor - Indian Life Insurance Context

Value of what the insurer can sell in the future is a key driver of its market value, like it is for most businesses. This is based on the expectation of profitable new business growth, i.e. how much can the company grow its new business and how much can the new business margins be increased. What we arrive at is then a P/E multiple equivalent of other industries. Instead of earnings, the relevant denominator would be the VNB generated by the insurance company in the latest year.

Alternatively, market participants more often express the entire structural value (and hence the market value) for a life insurance company as a multiple of Embedded value (EV).

Here is a summary of listed life insurers in India and each of their profitability metrics in reference to their market value.

Table 1.1

Insurer	EV @ 31st Mar'21 (In Cr.)	NBM for FY'21	VNB for FY'21 (In Cr.)	Market Value @ 18 Nov 2021 (In Cr.)	Implied EV Multiple
HDFC Life	26,620	26.1%	2,190	142,619	5.4
SBI Life	33,390	20.4%	2,330	118,230	3.5
ICICI Pru Life	29,106	25.1%	1,621	92,006	3.2
Max Life[1]	11,834	25.2%	1,249	40,981	3.5

[1] *Max Life valuation derived using Max Financial market value*

The above bottoms-up framework could then be used to arrive at an estimated market value for LIC. However, instead of speculating, given so many figures for the same are not available in the public domain, the effort is to look at aspects of LIC value which are comparable to listed private players and where there is significant departure.

Estimating LIC's Embedded Value:

Let's start with the publicly available component of EV, the net worth. At the quarter ending Jun 2021, ***LIC's net worth (reserves and surplus in shareholder account) was Rs. 6,228 Cr.,*** very similar to the figure at the end of March 2021.

Surprisingly, this is smaller than the net worth of the largest private player (by premiums), SBI Life by a margin. Why would this be so? LIC is fully owned by Govt. of India and most of the surpluses accrued to shareholders till now were transferred out in form of dividends to the Govt. with very little retained on the balance sheet of LIC. Compared to that, private life insurers, including SBI Life, retain most of this accrued surplus on their balance sheet.

The other part of EV is Value-in-Force (VIF). This is the *present value of expected future profits of the "back-book" or policies already sold.* As a proxy for this we look at LIC's policyholder account profits for the last few years. Policyholder account represents the profit cashflows accruing to shareholders arising from the business underwritten/products sold to policyholders. For FY'21 the amount was Rs. 2,889 Cr. This has grown at a CAGR of 6.1% over the last 3 years.

Profit emergence in a life insurance contract is over a period of time with a loss (or very low profits) in the year of writing the policy. Thus, the policyholder account profits shown above are arising from profits from policies written in the previous years and loss on policies sold in the year of reporting. Summarising the picture for LIC policyholder account profits, alongside their new business and renewal premiums in the last 4 years below:

Table 1.2

	FY'21	FY'20	FY'19	FY'18
Total Individual New Business Premium (in Cr.)	56,407	51,228	51,012	51,744
Total Renewal Premium	2,18,857	2,01,113	1,95,169	1,83,552
Policyholder Account Profits (in Cr.)	2,889	2,698	2,661	2,422

Assuming LIC makes very little loss writing new business, ***LIC's profit from back-book in FY'21 can be estimate to be close to Rs. 3,000 Cr***. This is in sharp contrast to private life insurers. For instance, HDFC Life disclosed its FY'21 policyholder account profits of Rs. 730 Cr. as, i) A loss of Rs. 2,500 Cr. on account of new business (first year) loss or strain, and, ii) Rs. 3,230 Cr. of surplus from back-book.

Why the assumptions that LIC's first year loss on writing new business (new business strain) is low?

1. Bulk of LIC's individual policies (***90%+ of weighted individual new business premium)*** are participating contracts, unlike large private players where such policies are only 10-30% of product mix. Participating contracts typically have little or no new business strain.
2. Uniquely, LIC also writes non-participating contracts in its participating fund, which also ensures that only a part of surplus/losses accrue to the shareholders. More on this later.

Group (institutional) business is ignored in the calculation which is large in premium contribution for LIC but most likely very short term and low margin. Hence, it is unlikely to impact policyholder account profits significantly.

To arrive at VIF, present value of future profit stream from existing policies would need to be computed. The present value computation takes into account the current risk-free long term interest rate (Govt. security yields) and the outstanding policy term of contracts already written. LIC typically writes long term (>15 years) policies and hence the present value factor could be in the range of 11-12, thereby making the ***VIF estimate to be in the range of Rs. 33,000-36,000 Cr.*** starting from the estimated back-book profit for FY'21.

Adding net worth to the above, LIC's EV could be in the range of Rs. 40,000-43,000 Cr.

We have made 2 big assumptions so far -
1) The amount of new business strain which if higher would mean higher back-book surplus,
2) The VIF of group business which has been completely ignored.

Keeping some legroom for the same, ***on the higher side, we estimate LIC's FY'21 EV to be Rs. 50,000-55,000 Cr.***

Quick Sense Check:
The above estimation method would need to be tweaked for private players (especially the listed ones) who have been growing new business at a much faster rate and have changed product mix (and hence profit profiles) in the last 5 years. As a sense check, HDFC Life's FY'21 back-book profits are Rs. 3,230 Cr. We would use a 5-7X factor for present value of back-book profits to capture relatively shorter policy terms compared to LIC. That would take us to a range of Rs. 16,000-22,000 Cr., broadly confirming with HDFC Life's reported VIF as at March 2021 of Rs. 17,630 Cr.

Participating plans, Participating Fund and Profitability

Predominance of participating plans in LIC's business was referred to earlier in the article in the context of new business strain. The relevant point is the surplus distribution structure between policyholders (through bonus declarations) and shareholders. The ratio is typically 90:10 which is true for private players, but for LIC this is 95:5.

Moreover, LIC writes other lines of non-participating business such as annuities, term and unit linked, "in the participating fund". That means, the (fairly large) surpluses generated by these lines of business would eventually be subjected to the 95:5 split before they accrue to shareholders.
This is likely to change with the proposed Amendment[1] to LIC Act, 1956 (Especially Section 28).

1. The 95:5 surplus sharing ratio is expected to become 90:10 similar to the rest of the life insurance industry.
2. Non-participating business is to be written in a separate non-linked fund. This is similar to how most of the industry manages non-participating products. This would also mean profits from these lines of businesses would belong entirely to the shareholders.

These changes could have large scale ramifications for policyholders (especially point 1). But, if and when they are implemented, LIC's back-book profits will be positively impacted. For a participating policy sold in the past which contributes Rs. 100 in the 95:5 regime would start giving Rs. 200 to shareholders if surplus sharing ratio becomes 90:10.

Assuming that the above changes take effect for existing policies, back-book profits and in turn Value-In Force would almost double. ***Conditional to these changes*** and for the rationale stated in the previous paragraph, ***our estimate of EV increases to Rs. 100,000 Cr. or Rs. 1 Trillion.***

Improvements in Persistency ratios and Possibility for Embedded Value Uplift

While it is difficult to estimate the extent of persistency sensitivity in LIC's EV, it should be noted that the runway for persistency uplift is long. LIC persistency is among the lowest in the industry, partly due to its geographical spread in the nooks and crannies of India and thereby a large proportion of business coming from low ticket sizes.

13th month persistency as per public disclosures is decent at 79%. However, this considers single premium policies in both numerator and denominator. Given LIC's single premium business is almost 50% of overall individual business, non-single premium policies alone are likely to have much lower persistency ratios (in the low 60s most likely for 13th month).

If policy administration is centralised similar to how it is for private insurers, an uplift to persistency and thereby to EV is pretty much within realms of possibility.

The Final Step: Calculating LIC's Market Value

….

To get the full report, just write to us on info@valuenable.in with the Subject line "LIC IPO" or simply what's app/SMS us your email id on 9321661831.

---

[1] https://www.indiabudget.gov.in/doc/Finance_Bill.pdf : Amendment of Section 28 of the Act

Who are we?

We at ValuEnable are focused on ***"existing customers"*** *of insurers. We partner with life insurance companies to help improve their persistency ratios, lower surrender outgoes. Our* ***Policy Assignment Platform*** *helps surrendering customers retain part of their life insurance cover, whereas our digital* ***Policy Loan Marketplace*** *enables quick liquidity for policyholders aiding continuation of policies. We also help insurers with their customer communications facilitating higher retention and revival rates.*

Extension of this is our ambition to become the "existing customer specialists", not limited to persistency levers alone. Given relevant experience in life insurance and focus on insurers' existing policies/back-book, we could partner with insurers in ***evaluation*** *to implementation stages of such* ***M&As*** *and help uncover synergies.*

We expect many such transactions in the Indian life insurance landscape in the next couple of years. In some cases, there could be a ***takeover of back-book alone*** *as smaller insurers rationalise product and distribution lines. We hope to be a part of this ecosystem and help generate values for all stakeholders involved!*

Want to know more about ValuEnable and our services? *You can visit us at valuenable.in or alternatively can write into satprem@valuenable.in or call us at +91-97696-23603.*