Life Insurance: A Business of Risk Management

Motilal Oswal CEO track | Aug 24, 2020

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What are life insurance companies supposed to do for their customers?

- Risk of inflation & interest rate movements
- Risk of dying too early
- Risk of living too long
- Risk of falling ill
- Risk of falling ill
- Competition reduces as we approach the core

Sources: www.rbi.org.in; www.sebi.gov.in; www.irdai.gov.in

Banks (>2100)  AMCs (>45)  Life Insurers (24)  Gold  .....and many more!

Health / General Insurers (34)  Life Insurers (24)

Life Insurers (24)  

Cover a variety of risks that customers are exposed to.
And how are they expected to generate value?

Spread
- Savings
  - Market-linked
- Annuity
  - Traditional
- Risk charge
- Protection
  - Term
  - Health
However, what we’ve seen in India till the early 2000s was mainly focused on mobilising savings. The end result being that a lot of savings were mobilised, but without adequate risk transfer!
After trying to emulate LIC for a while, private insurers decided to find their own path... with ULIP

The new product category mobilised even more savings, while continuing to compete with other financial and non-financial products...

But with no material risk transfer yet!

(While Total premium grew at a CAGR of ~26%, In-force sum assured grew slower by ~21% between FY06 and FY10)

Note: 1. Based on New business premium, Source: IRDAI Handbook and Annual report, Internal estimate
At HDFC Life, we charted our independent, unique path introducing innovative products that helped address customer concerns.

- **Retirement**
  - Early commitment to the category

- **2006**
  - Children’s plans
    - Expanded the category with our Youngstar brand
  - Women as a category
    - Introduced concept with Smart Woman *

- **2011-14**
  - Low charge ULIP
    - Pioneered with Click2Invest *
  - Online sale of protection
    - Popularized with our flagship Click2Protect

- **2015**
  - Niche health concerns
    - Addressed with products like Cancer Care *

- **2017-18**
  - Annuity deferment
    - Introduced concept with Pension Guaranteed Plan *

- **2019**
  - Long term guarantees
    - Advanced risk management with Sanchay Plus *
  - Cost effective ULIP, even at higher ages
    - Joint life concept innovatively used in Classic One *

- **2020**
  - Credit Life
    - Leveraged a prominent white space
  - Long term solution with cash payouts
    - Creatively structured via Sanchay Par Advantage

- **Risk transfer solutions**
  - * Industry firsts
These propositions were directed at real customer needs across their lifespans

**Objective**

Responding to customer needs and socio-economic changes (Addressing mortality, morbidity, longevity, interest rate risks)

- **20 – 30 years**
  - Simple Savings
  - Gold / real estate less attractive
  - First Job
- **30 – 40 years**
  - Borrowing
  - Youngsters buying houses & borrowing
  - Get married
- **40 – 50 years**
  - Investments
  - Pay off mortgage
  - Plan for retirement
- **50+ years**
  - Asset Drawdown
  - Medical care
  - Retire
  - Retired folks wanting to pursue interests
  - Joint families disappearing in metros

Net Worth

And our approach was validated with a **number of our propositions becoming the industry norm!**
Our propositions over the years were all centered around the core of risk management

- **Mortality**
  (Risk of dying early)

- **Longevity**
  (Risk of living too long)

- **Morbidity**
  (Related to illness / disease)

- **Interest rate**
  (Related to investments, managing guarantees)
But risk management can be tricky...

- Being a first mover, might get it wrong
- Frauds, lack of hedging options
- Not enough credible data
- Capital strain, losing street credibility
So, what is the science behind our risk management that helps HDFC Life stay balanced on the rope?

1. **Risks we cover for our customers**
   - **Mortality** (Risk of dying early)
   - **Longevity** (Risk of living too long)
   - **Morbidity** (Related to illness / disease)
   - **Interest rate** (Related to investments, managing guarantees)

2. **Risks intrinsic to our business**
   - **Operational risks** (Persistency, Mortality, Expense)
   - **Economic risks** (Equity markets, Interest rates, Credit risk)
# Risk management measures: Mortality & Morbidity

## 1. Reducing incidence of fraud & early claims

- **Analytics and Data Enrichment**
  - Risk+: AI-ML based risk models, rule engines, credit bureaus etc.
- **No ‘one size fits all’ underwriting**
  - Dynamic classification depending on profile, detailed medical & financial underwriting
- **Regular portfolio review**
  - To identify emerging trends, outliers and take corrective actions
- **Industry collaboration**
  - Mitigation from organised cartels

## 2. Limiting impact on profitability & solvency

- **Reinsurance**
  - Optimized reinsurance strategies for risk transfer
- **Catastrophe agreement**
  - To protect excess loss
- **Proactive reserving**
  - Well provisioned to prevent sudden shocks from current pandemic

## 3. Balancing price and risk

- **Active re-pricing**
  - Ongoing wherever required (mostly applies for Group schemes)
- **Product boundary conditions**
  - Gate criteria depending upon customer profile and sourcing channel
- **Product design**
  - Exclusions - pre-existing conditions, age limitations, suicide clause etc.

## 4. Strong governance & audits @Partners

- **TPAs & medical centers**
  - Ensure process & quality adherence
- **Distribution partners**
  - Adherence to best practices and continuous monitoring of risk

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**Risk management measures:**

- **Mortality & Morbidity**
  - Adherence to best practices and continuous monitoring of risk
Risk management measures: Longevity & Interest rate

1. **Natural hedges & Residual strategy**
   - **Naturally hedged product lines**
     - Protection and longevity; Unit linked and Non-par savings
   - **Limit quantum of AUM**
     - Quantum of retail guaranteed products 14% of AUM
   - **External hedging**
     - Instruments such as FRAs, IRFs, Swaps, amongst others
   - **Reinsurance**
     - Natural offset to mortality risk exposure

2. **Product design & mix monitoring**
   - **Prudent pricing assumptions**
     - Interest rate and risk margins assumptions
   - **High Annuity ROPP business**
     - Return of premium annuity products (>95% of annuity)
   - **Regular monitoring & repricing**
     - Monitoring of interest rates and business mix; repricing to align benefits with prevailing rates

3. **Prudent ALM approach**
   - **Target cash flow matching**
     - For Non-par savings + Group protection portfolio to manage non-parallel shifts & convexity
   - **Duration matching**
     - Immunise overall portfolio to manage parallel shifts in yield curve

4. **Validation**
   - **Stress test scenarios**
     - W.r.t. interest rates and persistency to identify impact on net asset-liability position
   - **External validation (by Milliman)**
     - ALM strategy appropriate to meet policyholder liability cash flows & protect net asset-liability position

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**Longevity & Interest rate**
**Operational risks**

- **Balanced product mix**
  To manage risk emerging from market volatility

- **Digital renewals**
  ~90% of renewal payments made digitally

- **Conservative assumptions**
  To factor adverse market impact

- **Mortality assumptions**
  Regular, granular review of experience vs assumptions, with corrective actions

- **Cost control measures**
  Continuous measures to reduce variable and discretionary costs

- **Continue to invest in Tech**
  To stay ahead of the curve & invest in future cost-saving technologies

**Economic risks**

- **Conservative investment strategy**
  GSecs or AAA rated securities (~97%);
  Exposure to below AA assets 0.3% of AUM

- **Regular monitoring**
  Ongoing investment portfolio review

- **Calibrated approach to shareholders funds**
  Risk averse approach for investment in shareholders funds (~25% equity)
In conclusion

### Sensitivity of key risk factors (FY20)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Change in VNB Margin</th>
<th>% Change in EV</th>
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<tbody>
<tr>
<td>Reference rate</td>
<td></td>
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<tr>
<td>▲ 1%</td>
<td>-0.7%</td>
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<tr>
<td>▼ 1%</td>
<td>0.2%</td>
<td>0.6%</td>
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<tr>
<td>Equity Market movement</td>
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<tr>
<td>▼ 10%</td>
<td>-0.1%</td>
<td>-1.1%</td>
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<tr>
<td>Persistency (Lapse rates)</td>
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<tr>
<td>▲ 10%</td>
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<td>-0.7%</td>
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<tr>
<td>▼ 10%</td>
<td>0.6%</td>
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<tr>
<td>Acquisition Expenses</td>
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<tr>
<td>▲ 10%</td>
<td>-3.9%</td>
<td>NA</td>
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<tr>
<td>▼ 10%</td>
<td>3.9%</td>
<td>NA</td>
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<tr>
<td>Mortality / Morbidity</td>
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<td>▲ 5%</td>
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#### Key takeaways:

- We are in the business of risk transfer, which implies the need for strong risk management measures.
- These measures, if executed in a calibrated manner, have the potential to generate significant value, while also meeting varied customer needs.
- At HDFC Life, we follow a prudent approach along with regular assessment of assumptions vs actual experience.
- As seen, this has resulted in lower sensitivity to EV and VNB, which is also validated by external agencies.
Thank You