The distinctive characteristics of life insurance operation

Mr. Wan Feng
Executive Director, Vice President

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Foreword

• The characteristics
• Why we need to understand them
• How we analyze them
The distinctive characteristics of life insurance operations

1. Products
2. Premiums
3. Marketing and sales
4. Business operations
1. Life insurance is an intangible product

Insurance policies are the product
   A contract in nature
   Related to birth, aging, illness, death and injuries.

Conclusion:
A life insurance product is an intangible risk protection obligation. The business of a life insurance company involves risks related to birth, aging, illness, death and injuries. However, these risks may or may not materialize.

How do we understand “risks may or may not materialize”? 
Products:
1. Life insurance is an intangible product

The meaning of “Intangible product”:

• Insurance companies sell promises. An insurance policy is a proof of this promise. Therefore, credibility is the foundation of the business of an insurance company.

• A customer experiences the benefit of insurance products through the service of the insurance company. Customer service is, therefore, the core business of an insurance company.
Products:
2. The need for insurance is not obvious to buyers.

- The insured risks involve events that may or may not happen.

- Therefore, buyers can choose to buy or not to buy such products.

- The risks borne by an insurance company will materialize.
Products:
2. The need for insurance products is not obvious to buyers.

Implications:

• Most buyers are reactive.

• Since risks may or may not occur, sales is more difficult.

• Adverse selection may occur.
Products:
3. Sales of insurance products rely on sales people.

- The ‘needs’ are not obvious. And the risk involved – birth, aging, illness, death and injuries – are not something people want to talk about.

- Life insurance products need to be marketed by sales people.
Products:
3. Sales of insurance products rely on sales people.

The meaning of “marketed by sales people”:
- A life insurance company needs sales people. In the primary market, the number of sales people is in proportion to sales.
- A unique sales team management model
- Making the primary market a seller’s market
- The targets of promotional activities are salespeople, not the actual ‘consumer’.
- Misrepresentation may occur.
Products:
4. Life insurance products are not consumer products.

• Insurance covers life and health, which are not commodities.

• An insurer buys a policy for financial compensation, not for consumption.
Products:
4. Life insurance products are not consumer products.

**Implications:**

- Life insurance is not considered a basic necessity by many.
- Only people who have achieved a certain living standard feel the need.
- Development of the industry is closely linked to market environment.
Premiums:
1. The difference between first-year premiums and renewal premiums

- First-year premiums – the value of output of an insurance company
- The number of first-year policies – the quantity of output of an insurance company
Premiums:
1. The difference between first-year premiums and renewal premiums

The significance of “first-year premiums”:

- Measures the sales capability of an insurance company.

<table>
<thead>
<tr>
<th></th>
<th>Renewal premiums</th>
<th>First-year premiums</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2nd year</td>
<td>90</td>
<td>50</td>
<td>140</td>
</tr>
<tr>
<td>% change</td>
<td></td>
<td>(50%)</td>
<td>40%</td>
</tr>
</tbody>
</table>

• First-year premiums are a key performance indicator for an insurance company and a comparable among peers.
First-year premiums are a growth driver for the following year’s business.

The significance of the “first-year premiums”:

- First-year premiums are a growth driver for the following year’s business.

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYP regular-premiums</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Renewal premiums</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Gross premiums</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Driving factor</td>
<td>50%</td>
<td>33%</td>
<td>25%</td>
<td>20%</td>
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</tr>
</tbody>
</table>

There is no increase of FYP, but gross premiums increase every year.
The significance of the “renewal premiums”:

- Measures the sustainability of an insurance company.
- Determines the long-term nature of an insurance company’s business.
### Companies A and B: Assuming a renewal rate of 100%, different amounts of renewal premiums will lead to different gross premiums.

<table>
<thead>
<tr>
<th></th>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company A</strong></td>
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<td>Single premiums</td>
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<tr>
<td>account for 50% of the FYP</td>
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<tr>
<td><strong>Gross premiums</strong></td>
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<td>8</td>
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<tr>
<td>First-year premiums</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>First-year regular-premiums</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
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<tr>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Company B</strong></td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Regular premiums</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>account for 100% of FYP</td>
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<td></td>
</tr>
<tr>
<td><strong>Gross premiums</strong></td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
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</tr>
<tr>
<td>First-year premiums</td>
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<td>2</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>First-year regular premium</td>
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<td>2</td>
<td>2</td>
<td>2</td>
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<td>2</td>
<td></td>
</tr>
<tr>
<td>Renewal Premiums</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>GP of A / GP of B</strong></td>
<td>2/2</td>
<td>3/4</td>
<td>4/6</td>
<td>5/8</td>
<td>6/10</td>
<td>7/12</td>
<td>8/14</td>
<td></td>
</tr>
<tr>
<td><strong>Market share</strong></td>
<td>50%</td>
<td>43</td>
<td>40</td>
<td>38</td>
<td>37</td>
<td>36</td>
<td>36</td>
<td>50%</td>
</tr>
</tbody>
</table>
Premiums:
2. Premium income is accumulative.

How do premiums accumulate?

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross premiums</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>...</td>
</tr>
<tr>
<td>New business</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>...</td>
</tr>
</tbody>
</table>

Gross premium income tends to grow arithmetically.

Why do premiums accumulate?
### Premiums:

2. **Premium income is accumulative.**

* Regular premiums are accumulative. Single premiums are not.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross premiums</th>
<th>Single premiums</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 2 2 2 2</td>
<td>2 2 2 2 2</td>
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<tr>
<td>2</td>
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<td></td>
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<td>3</td>
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<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
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<td></td>
</tr>
</tbody>
</table>

...
How do premiums accumulate?

• Longer payment periods result in higher premiums accumulated and higher sustainability for an insurance company.

• The higher the proportion of the accumulative part, the better the premium structure is.

• Short-term regular premiums are not fully accumulative.
### Organic growth of premiums

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
<th>Monthly premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>5 * Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>31/12</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>2</td>
</tr>
<tr>
<td>31/12</td>
<td></td>
<td>12 * Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>Pm</td>
<td>4</td>
</tr>
<tr>
<td>…</td>
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<td></td>
<td></td>
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<td>…</td>
</tr>
</tbody>
</table>

First-year premium income: $5 \times Pm$
Second-year Premium Income: $12 \times Pm$ (+140%)
Premiums: 3. Organic growth of premiums

Why do premiums grow organically?

Since the policy anniversary and financial year are usually different, most policies would straddle two financial years. Therefore, there will be a situation where premiums received in the current financial year will be less than the amount for the next premium renewal year. Hence, there is a natural increase in premiums in the second year.
**Premiums:**

3. **Organic growth of premiums**

Organic growth of premiums:

<table>
<thead>
<tr>
<th>Annual premium</th>
<th>5 * Pm</th>
<th>12 * Pm (+140%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly premium</td>
<td>Pm</td>
<td>Pm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>8</th>
<th>10</th>
<th>31/12</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
</table>

- The more premiums paid on a regular basis (except one-off annual payments) in an insured year, the more natural growth of the premiums in the next financial year.

- The more regular premiums paid (except one-off annual payments) in the second half of an insured year, the more natural growth of premiums in the next financial year.
Guaranteed interest rates and guaranteed policy dividend payments are the cost of premiums of a life insurance company.
Implications:

- Since premiums come with a cost, the use of capital has a very significant impact on the business operations of a life insurance company.

- The “cost” is deducted from the tax a life insurance company pays.
Sales:
1. Sales of new policies need proper control
Sales:
1. Sales of new policies need proper control

* Why do we need proper control?

* Costs in the first year of life insurance policies are higher than in renewal years

* Insurance companies nowadays use level premiums schemes
Sales:
1. Sales of new policies need proper control

Natural premium vs level premium

- Premium
- Period
- Natural premium (Expense loading)
- Level premium
- Insurance cost
Sales:
1. Sales of new policies need proper control

How do insurance companies control sales?

1) Two-year principle:

1st year: 120%—130%
2nd year: 70%—80%

Therefore, if reserves are not set aside for two years, the policy will have no ……
Sales:
1. Sales of new policies need proper control

How do insurance companies control sales?

2) Budget management:

Example:
- Cost of new policy (assumption) 130%
- Annual profit plan 80 million
- Realizable profit 110 million
- New policy premium plan 100 million

What would happen if the new policy premium reaches 120 million?
Sales:

1. Sales of new policies need proper control

* First-year premiums do not generate profit

* Premiums from policy renewal generate profit

* More “resources” should be allocated to new first-year policies

Why do we *need* proper control?

These features are yet to be reflected in China’s life insurance industry.
Sales:

2. Careful selection of customers is essential

Companies in general

Life insurance companies

All customers are welcome

Increase premiums, accept with conditions or even reject applications
Sales:
2. Careful selection of customers is essential

Why be selective:
* Not everyone can be a customer of a life insurance company
* Key to success: look for those who match our criteria
* Application underwriting is essential in the life insurance business
Business operations:
1. Production comes after sales

**Companies in general:**
- Purchase of raw materials → Production → Sales → Service

**Insurance companies:**
- Sale of policy → Management (production) → Service → Payment
Business operations:
1. Production comes after sales

**Implications:**
* Sales has the leading role in the company’s operational chain
* The company’s development is driven by sales
* Think about “production” before selling; never sell any product that is unable to deliver
* Rules can be violated
* Underscore the important role of sales agents
Business operations:
2. Risk declines over the years

Net risk of insurance = Sum insured – reserve

Net risk of insurance is the actual risk borne by an insurance company
Business operations:
2. Risk declines over the years

Example: $A = 1000$, $N = 10$, Rs for each year below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Risk Calculation</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>$R = 1000 - 0$</td>
<td>1000</td>
</tr>
<tr>
<td>2</td>
<td>200</td>
<td>$R = 1000 - 200$</td>
<td>800</td>
</tr>
<tr>
<td>3</td>
<td>450</td>
<td>$R = 1000 - 450$</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>......</td>
<td>......</td>
<td>......</td>
</tr>
<tr>
<td>9</td>
<td>890</td>
<td>$R = 1000 - 890$</td>
<td>110</td>
</tr>
<tr>
<td>10</td>
<td>1000</td>
<td>$R = 1000 - 1000$</td>
<td>0</td>
</tr>
</tbody>
</table>
Implications:

- The longer an insurance policy has been in force, the less risky it is for an insurance company.
- Therefore, after-sales service to long-term customers is extremely important.
Business operations:
3. Profitability hinges on anticipated costs

Companies in general:
- Actual cost of raw materials
- Actual cost of production
- Actual cost of sales
- Estimated profits

Life insurance companies:
- Estimated mortality rate
- Estimated interest rate
- Estimated additional costs
- Estimated profit

Product prices

Premium rates

Product sold, profits realized

Insurance policies terminated, profits realized
Business operations:
3. Profitability hinges on anticipated costs

_Implications:_

- Operating risks for a life insurance company are “potential” in nature.
- Cost control is essential.
- The [actuary](index) has a very special position and duties.
- Use of embedded value (EV) to evaluate the value of a life insurance company.
Business operations:
4. Reserves are an obligation to customers

A property insurance company’s reserve is the cash reserve for the company to pay against natural risks. It belongs to the company.

A life insurance company’s reserve is the cash reserve for the company to pay against obligations to customers at certain points of time. It belongs to customers.
Implications:

- A life insurance company operates with liabilities.
- A life insurance company’s financial stability is very important.
- Prudent business operations are the fundamental management principle of a life insurance company.
Business structure and profitability of a life insurance company

In general:

• Product nature: For protection > Savings > Dividend-paying > Derivative

• Duration: long term > short term

• Payment method: Regular > Single

• Distribution channel: agents > Bancassurance > group direct sales

Conclusion: For protection, long-term, regular premium, agent distributed channel