Making money from insurance (through risk management)

Stephen Wilcox, CRO, Allianz UK
How to make money

• The theory
• The evidence
• Getting risk right

The theory

• You make money from insurance by managing risks well
• If you get the basics right, general insurance is a great sector to be in
• Stronger risk management feeds into stronger returns
• This is good news for actuaries – and actuarial risk managers
Key drivers of share price

- Drivers of M/B ratio
  \[ \frac{M}{B} = 1 + \frac{\text{RoE} - \text{CoC}}{\text{CoC} - g} \]

- RoE: Return on equity
- CoC: Cost of capital
- \( g \): growth factor
- “Make more money than your cost of capital”
  \[ \text{CoC and } g \text{ are partly external} \]

- M/B: Mkt:Book ratio
- RoE: Return on Equity achieved
For insurance

General
- Value =
  - Reserve surplus plus value of new business
- \( RS + \frac{(P[(1+rf)−CR]−r InsC+α EC)}{CoC−g} \)
- \( RS \) is stable and small, \( α = 1 \), other terms small
  - Shrink as interest rates -> 0
- Driven by CR: combined ratio

Life
- Value =
  - Reserve surplus plus value of new business
- \( EV + \frac{P \cdot NBM + α EC}{CoC−g} \)
- \( EV \) is volatile and large, \( α ≈ 1 \), \( NBM \) depends on the future
- \( EV \): Low when interest rates low
  - Diversify? Pure protection

The evidence

- Life companies’ share prices track EV
- GI trading above book value; life below
The US evidence

- The Journey (Revisited, III)
- McKinsey’s studies into US GI
- “Risk management is the primary driver of success”

Exhibit 7

Industry turnaround more dramatic when normalized for catastrophes and realized investment gains and losses

$ Billions

80
60
40
20
0
-20
-40
80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 2000 01 02 03 04 05 06 07 08 09 10

Exhibit 8

Underperformers have exited the U.S. P&C market or been acquired

<table>
<thead>
<tr>
<th>Year of exit</th>
<th>Carrier</th>
<th>Average combined ratio</th>
<th>Average NP$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>Crum &amp; Foster</td>
<td>122%</td>
<td>$3.0</td>
</tr>
<tr>
<td>1993</td>
<td>Continental</td>
<td>111%</td>
<td>$3.7</td>
</tr>
<tr>
<td></td>
<td>U.S. F&amp;G</td>
<td>113%</td>
<td>$3.0</td>
</tr>
<tr>
<td>2002</td>
<td>China P&amp;G</td>
<td>106%</td>
<td>$5.5</td>
</tr>
</tbody>
</table>

1. Historical combined ratios were determined using 10-year averages of U.S. exposed catastrophe losses.
2. [source: A.M. Best, A.M. Best Company analysis]

14 October 2013
"Focus on profit, not market share"

"Profit focused underwriting… careful risk selection"

"Disciplined underwriting… never sacrifice profitability"

"End exposures to financial guarantee… ugly… major emphasis [in 2009] on ERM… more efficient"

"First stage of transformation … restructure in progress"

**GI Risk management and actuaries**

\[
RS + \frac{(P[(1 + rf) - CR] \cdot r \cdot InsC + \alpha \cdot EC)}{CoC - g}
\]

- RS – reserve surplus
- InsC/EC – capital
- CoC – function of risk appetite

**CR**
- Loss ratio – Pricing/Underwriting risk
  - Catastrophe risk
  - Asset Matching
  - Reinsurance purchase
- Expenses – Operational risk
Risk management, not just Risk function

- Overall culture important
- Formal ERM impact mixed...
  - BUT lively ERM is essential
    - Models are always wrong
    - Frameworks will be arbitrag ed
    - Frameworks may not adapt

Provide technical analysis to support the business
Have a deep understanding of the business
Be close to the business
Encourage appropriate risk-taking, using professional judgement
Creative tension

Managers

CRO

Regulators

Shareholders

A balancing act

- Risk management or traditional actuarial?
- Non-traditional or traditional career?
- IFoA – supporting actuaries to develop in risk management
Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.