

Determining general insurance profit margins

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Presentation summary

1. Regulation & competition
2. **The CAPM approach**
3. Alternate frameworks
4. **Suggested approach**
5. Conclusions



1. Regulation & competition

- Reasons for regulation
- Current competitiveness
- Insurance limits



Reasons for regulation

- Insurance as a public good
- Insurance seen as taxes
- Market flaws and failure



Current competitiveness

- Top five market share!
- Barriers to entry are variable:
 - Brand and relationships
 - Expertise and systems
 - Data and experience
- Crises?
 - High and difficult to judge costs...or
 - price opportunism?



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Insurance limits

“...The frequency and magnitude of the expected loss must be assessable...The circumstances of a loss must be capable of definition...”

Hart, Buchanan and Howe

- Risk management vs taking on risk



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2. The CAPM approach

- CAPM & related methods
- Liability β issues
- Non- β effects
- Conclusions



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CAPM & related methods

- CAPM $E(R) = R_f + \beta_i[E(R_m) - R_f]$
- Insurance CAPM
- Myers-Cohn



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Liability β issues

- Few sample companies
- Inconsistent results
- β changing over time
- β by type of business unclear
- Does insurance risk have value?



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Non- β effects

- “Commodity-type” vs “excellent”
- High $\beta \neq$ High profitability

GI BUSINESS \approx  ?

- Low insurance profitability linked to:
 - Fragmented market
 - Limited barriers to entry
 - Less strong brand effect



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Conclusions

- CAPM based approaches have limitations
- Many factors affecting profitability not captured

“For every human problem, there is a neat, simple solution; and it is always wrong.”

H. L. Mencken



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3. Alternate frameworks

- Frictions
- Skewness
- Diversification
- Franchise value



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Frictions

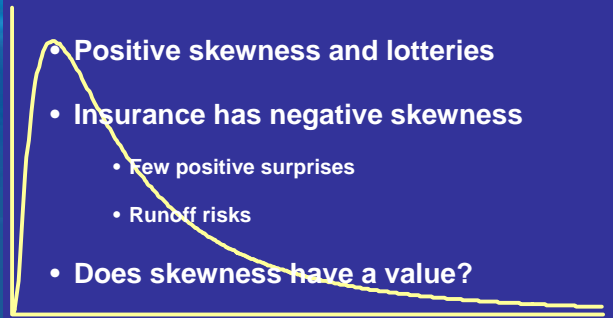
- Financial distress
- Agency costs
- Regulatory costs



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Skewness

- Positive skewness and lotteries
- Insurance has negative skewness
 - Few positive surprises
 - Runoff risks
- Does skewness have a value?



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Diversification

- Does insurance risk have value?:
 - Easy to diversify: local theft risk
 - Hard to diversify: Tokyo office buildings



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Franchise value

- Intangible assets and sunk costs
- Need to account for the NTA premium
- Issues of stock price movements
- Franchise value a circular argument?



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4. Suggested approach

- Capital base and ROE
- Historical profits
- Allocation



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Capital base and ROE

- Capital: Balance Sheet or Enterprise value?
- ROE:
 - Financial year versus fair return
 - How risky is insurance: $\beta = 0$ or $\beta < 0$?
 - Relationship to equity market



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Historical profits

- Sigma study $\approx 12\%$ after tax
- Corporate aims $\approx 15\%$
- Over-targeting and the expectation gap



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Allocation

- Many approaches, see Venter
 - Marginal capital
 - Leveraged mutual fund
 - Risk measure and allocation
- Risk measures: VaR, SD types, Default
- Allocation:
 - Proportional or marginal
 - Distribution issues



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5. Conclusions

- CAPM based approaches have significant limitations
- In practice insurance risk has some value
- Franchise value a reasonable approach
- Determination of profit margins is complex...



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"I have yet to see any problem, however complicated, which, when you looked at it in the right way, did not become more complicated."

Poul Anderson (1926-)



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