Risk and Return Determinants of US Insurers

ARIA 2013 Annual Meeting – Washington, DC

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Brief Summary of the Paper

• Analysis of risk and reward-to-risk determinants for US insurers with data from 1992-2011
• Dependent variables: total-risk (stock volatility), systematic risk (CAPM beta), reward-to-total-risk (Sharpe ratio), reward-to-systematic-risk (Treynor ratio)
• Explanatory variables:
  – Profitability (ROE, ROA)
  – Leverage (LtA, NPEtE)
  – Liquidity (current ratio)
  – Business growth (% change in net premium earned)
  – Size (logarithm of total assets)
  – Form of executive compensation
  – Type of insurer
  – Stock exchange traded

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Major Thoughts

- A wide range of empirical studies exists in this area, with evidence for various countries, different industries or legal firm forms
- To some extend empirical findings go in the same direction, however there are also opposing findings
- It might be beneficial to explore those differences and investigate driving forces behind the individual determinants more carefully
- This paper goes in this direction
Suggestions for Improvement

- In order to capture heterogeneous effects, allow interaction terms, e.g. the stock exchange where the company is traded or size of the company.
- Increase reliability of estimates by conducting robustness checks, e.g. different time frequency (monthly or weekly stock returns) or run regressions on subsamples (5 or 10 years).
- Include time/state/firm fixed effects.
Suggestions for Improvement

The growth hypotheses could be analyzed in more detail:

• H4a: Healthy business growth reduces insurers’ risk and improves the reward-to-total-risk
• H4b: Business growth increases insurers’ risk

→ Growth shows an insignificant effect in the risk and in the return-to-risk regressions
→ The authors indicate that this might be the case as both effects offset each other
→ Hypotheses could be separated if distinctive values of growth are regarded, i.e. values representing healthy vs. non-healty growth
Suggestions for Improvement

The compensation hypotheses could be analyzed in more detail:

- See e.g. a current working paper by Yu-Luen Ma and Ping Wang: “Executive Compensation and Risk Taking“
- Sensitivity of stock compensation is primary measure: By how much does compensation package increase when stock increases by 1$?
- Using compensation and compensation squared they find a quadratic relationship
- This indicates that managers act risky only up to a certain level of variable compensation
- Also differences between stock based and option based compensation are found