

4. Conclusion

In this paper we use a two stage least squares estimation model (2SLS) to estimate the impact of the RBC ratio on the risk-taking behavior of property-liability insurers. The correlation between capital and risk in our paper is the same as the findings of CS. It appears that the higher risk insurers hold more capital in order to avoid regulatory and bankruptcy costs and managerial risk aversion and to protect franchise values.

The other variables affecting the change in capital are size, belonging to an insurance group, the intra-group Herfindahl index, being licensed in over 16 states, being an independent agent and being either a mutual or a stock company. The variables affecting the change of risk are similar to those found in CS. The intra-group Herfindahl index variable and the national variable do not affect risk, but being licensed in New York would affect it.

The RBC ratio will be a major regulatory tool in the insurance industry in Taiwan when it is implemented in 2003. The results of this paper show that the RBC ratio has a positive influence. The target of the RBC system is to maintain an insurance firm's solvency and to put pressure on the insurers to comply. Insurers with a low RBC ratio should increase their capital ratio or decrease their risk to meet the

regulator's requirements. Results show that the RBC system can accomplish its desired purposes.

When we go step further, we find that insurers with high RBC ratios would also increase their capital and decrease their risk. To explain the seemingly unreasonable results, we incorporate the interrelationship among RBC, size and organizational form into the analysis. The risk-taking behavior of insurers with high RBC ratios is affected by the firm's size. A large firm with a higher RBC ratio decreases its capital ratio and increases its total risk, mainly on the product risk side. The conclusion we can draw is that large insurers, having high RBC ratios, tend to take steps to prevent management inefficiency.

Conversely, small insurers with high RBC ratios increase their capital ratios and decrease their risk. Smaller firms prefer to increase capacity by raising their sales of insurance products in order to prevent any future catastrophe. This is specific to the property-liability insurance industry.

The insurance supervisor in Taiwan is going to implement RBC in the near future. Since the above experience from U.S. show that the RBC system could have positive effects on risk-taking behavior of property-liability insurers, we expect that RBC will enhance the insurers' solvency in Taiwan as well. How this expectation will turn out is an interesting topic to investigate in the future.

