

# Capital Allocation in the Property-Liability Insurance Industry

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Presented at the:  
2011 Enterprise Risk Management Symposium  
Society of Actuaries  
March 14-16, 2011

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This project has been funded by the Actuarial Foundation and the Casualty Actuarial Society. Please do not reproduce this article without permission from these organizations.

## **Abstract**

Capital allocation is a theoretical exercise because all of a firm's capital could be depleted to cover a significant loss arising from any one segment. However, firms do need to allocate capital for pricing, risk management and performance evaluation. One versatile allocation method, the Ruhm-Mango-Kreps algorithm, has several key advantages: additivity, simplicity and flexibility. However, the approach is so flexible it can be used to produce many different values instead of having a single answer. In this paper, the cost of capital in financial markets is incorporated into the Ruhm-Mango-Kreps algorithm to yield one allocation that reflects the true cost of capital an insurer would face.