

**2000 GENERAL INSURANCE CONVENTION
25-28 OCTOBER**

CAPITAL ALLOCATION WORKING PARTY

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Outline of Research and Planned Paper

Following on from the preliminary report of last year's Capital Allocation Working Party, the group has focused on three key issues:

- The importance of capital allocation within a property & liability insurance company.
- The determination of a coherent risk measure for insurance business.
- The application of a coherent risk measure within a capital allocation framework related to techniques used in the banking sector.

The research paper, which we hope to present at conference, begins by asserting that the total capital of an insurer is determined by exogenous factors. These factors are driven by regulators, ratings agencies, the balance of shareholders' need for efficiency and the company's need for flexibility of operation (i.e. not having to raise additional capital to realise new investment opportunities).

The definition and attractions of a "coherent" (due to Artzner, et al) risk measure are then discussed and the "right-tail deviation" proposed by Wang is discussed as a potential candidate. The derivation of the right-tail deviation, as an extension of the Proportional Hazards Transform (PHT), is also discussed and the attractive properties of PHT are summarised.

Finally, it is proposed that the right-tail deviation can be incorporated within a framework for capital allocation that is derived from related practices in the banking sector. It is then demonstrated how insurance company managers can use this approach to strike the balance between risk and required return that should underlie rational investment decisions.

The research has also identified a number of key papers from the fields of financial mathematics, economics and actuarial science that are relevant to capital allocation, and full references will be included in the paper.