

Gesellschaft für aktuarielle Beratung mbH

# Actuarial expert knowledge on reinsurance

Carefully designed reinsurance coverage is decisive for the success of a company as a whole. No matter if it is traditional or structured reinsurance: evaluations based on simulations offer valuable help for choosing the ideal reinsurance type. For all customary forms of risk transfer, Meyerthole Siems Kohlruss determines a technical price, calculates the achieved risk relief and assesses the predicted effects on the balance sheet and profit/loss accounts.

## Quotation

As a rule, the pricing process for reinsurance is very different from case to case. For non-proportional contracts we determine an individual quotation based on burning cost, Pareto, and exposure curves. For proportional cessions, we determine the expected loss ratio on the basis of major claims per risk and per catastrophe loss. The quotations are based on the individual situation of the company as reflected in the data. In addition, recent information about the market is also considered.

# Optimization

The design of reinsurance coverage generally depends on the equity capital of the assigner. We use the portfolios of the insurer as a starting point to calculate a set of possible reinsurance patterns. The analysis is carried out by simulation models. On the basis of a given quota level, we determine the 'good' programs and give individual recommendations for a successful reinsurance design.

## Risk modelling for natural disasters

It is the modelling agencies that usually determine probabilities of natural disasters. Their predictions are based on numerical weather prediction. In practice, the results of such predictions differ noticeably. For risk modelling, Meyerthole Siems Kohlruss generally employs the agencies' results. But in addition we also perform independent studies that contain individual predictions for the customer. For this calculation classical actuarial models are applied to the loss experience data of your company. The results enable our customers to evaluate their natural disaster exposure from an additional viewpoint.

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# Run-off of reinsurance contracts

More and more frequently, the run-off of reinsurance contracts is terminated prematurely. In most cases the commutation is amicable. However, in some situations the value of the portfolio is controversial, or it is only one party which demands the commutation, within a Solvent Scheme of Arrangement. We provide reports on the economic value of the remaining run-off program and of the safety loadings. In addition, we comment on the limits of actuarial methodology.

# Meyerthole Siems Kohlruss

Meyerthole Siems Kohlruss (MSK) was established in Cologne/Germany in 1998 as the first German actuarial consulting firm. It supports insurers in strategic decisions and operative processes. Our areas of focus include data pooling, pricing, assessment of reserves, and risk modelling.

# Clients

- > Primary insurers and reinsurers
- > Captives and corporates

# Contact

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