

**METHODS OF RESERVING IN GENERAL INSURANCE**

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## **ABSTRACT**

This project illustrates the concept of reserving and its methodologies in general insurance. The main objective is to analyse reserving methodologies in general insurance in order to assess several discrepancies between deterministic and stochastic models. An overview of the nature of general insurance is given in the introduction for a better understanding of the concept of reserving. What follows is an illustration of the theoretical background underlying reserving as well as a discussion of the types of reserves that a general insurance company can hold. An illustration of the typical procedure underlying any reserving exercise is also given. The traditional deterministic chain-ladder technique is discussed in detail, together with an example to illustrate the method. The stochastic claims reserving in general insurance has been introduced, along with the advantages and disadvantages of the stochastic techniques over the traditional deterministic techniques. The stochastic chain-ladder models which reproduce reserve estimates given by the chain-ladder technique are further discussed, and an example is given to illustrate the models. Lastly, the prediction errors underlying the stochastic chain-ladder models are examined followed by an example. In conclusion, despite the fact that there has been an increasing interest in stochastic claims reserving in the last twenty years, their use is still limited due to a number of reasons including a general lack of understanding of the methods as well as lack of flexibility in the methods.

**Key Words:** deterministic chain-ladder, stochastic claims, stochastic chain-ladder, prediction error