

Uncertainty in the evaluation of the reserve

Background The file *hurricane.txt* contain insurance losses due to US hurricanes in the period 1949-80. They are in US\$ and would have been much larger today. Suppose this is the historical data for a portfolio in large claims insurance where the 35 claims on file are those recorded during 32 years. There is on the responsibility for each claim an upper limit b that is going to be varied.

Objective: You are to present an evaluation of the reserve with uncertainty when the hurricane data used as as basis for modelling.

Material: Sections 4 and 5 in “Historical estimation and error” and some of the exercises to Section 5, the file *hurricane.txt*.

Main points: The presentation (25 minutes) should cover

- Which loss distribution to use. Possibilities:
 - Normal or gamma on log-scale
- Consequences for the reserve as b is varied.
- Uncertainty evaluated by the nested bootstrap as b is varied