0.0 → Introduction

→ overview → think of an insurance company as having two main jobs: setting the right price for its services (ratemaking) & saving up enough money to pay future claims (reserving)

→ Ratemaking

→ In insurance, price of coverage = premium. To do this, actuaries (insurance experts) look at:

1) Expected claims → what will future claims cost based on past trends?

2) Operating costs → Insurance also has regular expenses

3) Profit & safety margin → insurers include a small margin to handle unexpected events & stay in business

→ To get these rates right, actuaries look at historical data, adjust for trends, & use mathematical models to ensure prices are fair, balancing affordability for customers & sustainability for the insurer

→ Reserving

→ In insurance, reserving is about setting aside enough money to pay for claims, both the ones reported & the ones that may come up later but haven't been reported yet ('IBNR' or Incurred but not reported). This way, even if there is a delay, the company can handle claims promptly

→ Actuaries use several methods here

→ Development method → This method analyzes patterns over time to see how claims have grown

→ Bornhuetter-Ferguson method → This combines past data w/ outside expectations to help predict future needs, even if there is a lack of history

→ Summary → Together, these two functions keep the insurance company strong & reliable, so it's always ready to protect customers when they need it most