Calculating the cumulative distribution function of

Since is a continuous random variable, this is obtained by integrating the density function from 0 to

Expectation of

**Conditions for the parameters:**

is a positive random variable, therefore clearly leading to a positive mean size of claims. Also for the same reason, ensuring that the basic integration step can be applied. Clearly, to ensure that the mean size of claim is well defined.

Median of

Let

Solving for *,*

Variance of

By definition,

**Conditions for the parameters:**

Variance is strictly positive . Hence . Clearly , again ensuring that the variance is well defined.

The Inversion method

1. Generate ui (0,1)
2. Set ui=F(xi) and make xi the subject

#This can be done since F(x) is continuous and strictly increasing based on the restrictions imposed on the parameters.