Severity Class Cheat Sheet

m Severity(name, sev_name="", sev_a=np.nan, sev_b=0, sev_mean=0, sev_cv=0, sev_loc=0, sev_scale=0, sev_xs=None, sev_ps=None, sev_wt=1, sev_lb, sev_ub, sev_conditional=True)

The following tables show all methods, and fields or properties (used interchangeably). Comments elucidate the meaning of more obscure entries.

1. Specification & creation

name name for object sev_name scipy distribution name, or (c|d)histogram exp_attachment gross loss attachment or None exp_limit gross loss limit sev_a shape parameter 1 sev_b shape parameter 2 sev_mean ground-up loss mean sev_cv ground-up loss CV sev loc location (shift) sev scale scale factor sev xs vector of outcomes sev ps vector of probabilities; missing for equal likelihood sev wt ignored, mixing handled by Aggregate sev 1b lower bound for conditional range

sev_conditional gross losses conditional on attaching

Specify the ground-up loss, optionally converted to gross

2. Update

sev ub upper bound

loss by the limit clause.

layer (default) or unconditional

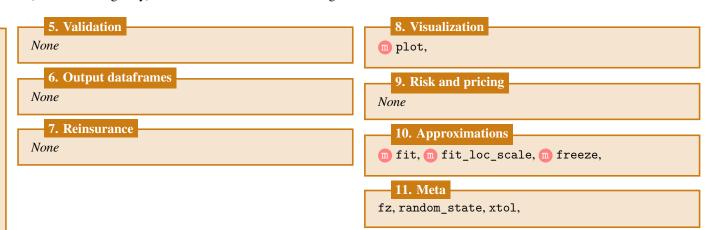
m cv_to_shape, m mean_to_scale, pattach, pdetach,

3. Moments

- m generic_moment, m mean, m median, m moment,
- moment_type, m moms, sev1, sev2, sev3,
- m stats, m std, m support, m var,

4. Statistical functions

- m cdf, m entropy, m expect, m interval, m isf,
- m logcdf, m logpdf, m logsf, m nnlf, m pdf,
- m ppf, m rvs, m sf, m vecentropy,



Notes:

[0]: Arguments sev pick attachments=None, sev_pick_losses=None, omitted; see help.

[1]: matches Portfolio

Any vectorizable input accepts numeric or iterable datatypes. Abbreviations: gcn=gross (subject), ceded, and net; stats: m=mean, cv=coefficient of variation, sd=standard deviation, var=variance, skew(ness); VaR=value-at-risk