

Guide to Notation

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Object	Definition
<i>Random variables</i>	
z	state
p	probability
x	random variable
E	expectation: $E[f(x)] = \sum_x f(x)p(x)$ or $\int f(x)p(x)dx$
μ'_j	raw moment: $E(x^j)$ for positive integer j
μ_j	central moment: $E[(x - \mu'_1)^j]$
h	moment generating function: $h(s) = E(e^{sx})$
k	cumulant generating function: $k(s) = \log h(s)$
κ_j	cumulant: j th derivative of k evaluated at $s = 0$
γ_1	skewness: $\kappa_3/(\kappa_2)^{3/2} = \mu_3/(\mu_2)^{3/2}$
γ_2	excess kurtosis: $\kappa_4/(\kappa_2)^2 = \mu_4/(\mu_2)^2 - 3$
<i>Risk and risk aversion</i>	
α	risk aversion parameter
c	consumption
U	overall utility
u	utility in each state: $U = E[u(c)]$