

CFA® SAMPLE QUESTION - LEVEL I

Quantitative Methods

Q: For a "Lognormal" Distribution

CORRECT ANSWER:

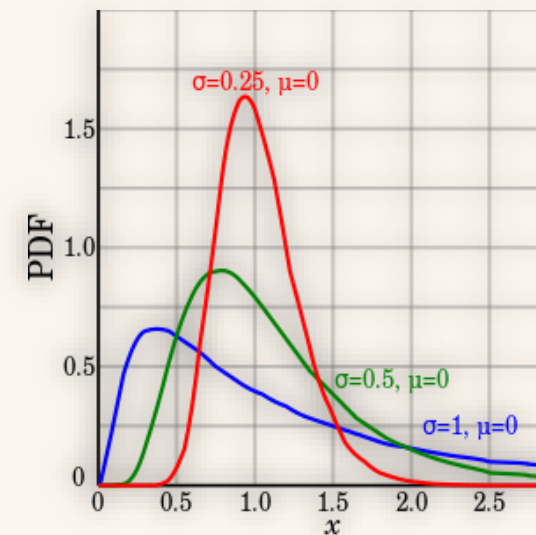
Ⓒ probability of a negative outcome is zero

By its nature, a lognormally distributed variable is never negative.

In probability theory, a log-normal (or lognormal) distribution is a continuous probability distribution of a random variable whose logarithm is normally distributed.

Thus, if the random variable X is log-normally distributed, then $Y = \ln(X)$ has a normal distribution. Likewise, if Y has a normal distribution, then $X = \exp(Y)$ has a log-normal distribution.

A random variable which is log-normally distributed takes only positive real values. The distribution is occasionally referred to as the Galton distribution or Galton's distribution, after Francis Galton.



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