Stochastic Calculus The Normal Distribution

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Abstract. This is a survey on normal distributions and the related central limit theorem under sublinear expectation. We also present Brownian motion under sublinear expectations and the related stochastic calculus of Itô's type.

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Suppose that the share is worth S0 = 80p now. Calculate the probability that the share will go down by 10p or more in a year: express it through N, the distribution function for φ (0, 1) and calculate it numerically. I know how normal distribution works but I don't know how this version of it works.

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Stochastic Calculus The Normal Distribution

A stochastic differential equation (SDE) is a differential equation in which one or more of the terms is a stochastic process, resulting in a solution which is also a stochastic process. SDEs are used to model various phenomena such as unstable stock prices or physical systems subject to thermal fluctuations .

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