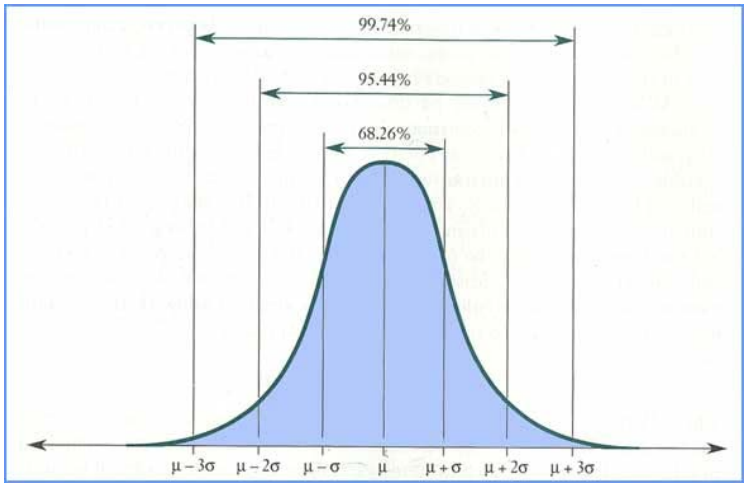
Basic Statistics[1]
Quick Sheet[2]

Probability, Mean, Median, Mode, Weighted Average, Standard Deviation and Variance

Probability (ρ)	Measure of the likelihood that an event will occur.	$\rho = \frac{Number\ of\ ways\ an\ outcome\ can\ occur}{Total\ number\ of\ possible\ outcomes}$
Mean ($\overline{x}$)	Average of a set of numbers	$\overline{x} = \frac{\sum X_i}{Number\ of\ X's}\ or\ \frac{1}{n}\sum_{i=1}^{n} X_i$
Median ($\tilde{x}$)	Middle value in a set of numbers	$\tilde{x} \equiv \begin{cases} Y_{(N+1)/2} & \text{if } N \text{ is odd} \\ \frac{1}{2}\left(Y_{N/2} + Y_{1+N/2}\right) & \text{if } N \text{ is even} \end{cases}$
Mode	Number that occurs the most often in a set of numbers	
Weighted Average $\langle x \rangle$	The average of a set of values (X_i) in which each value is interacted with a complementing value (E_i).	$\sum Y_i E_i$ in which $\frac{X_i}{Y} = Y_i; E_i; \sum Y_i = 1$ $or\ \langle x \rangle = \sum_{i=1}^{n} X_i E_i$
Variance (σ^2)	The average of the squared differences from the mean in a set of values	$\sigma^2 = \frac{\sum (X_i - X_{mean})^2}{\#\ X's\ in\ sample}$
Standard Deviation (σ)	Distance from the mean value in a set of values; square root of the variance (σ^2)	$\sigma = \sqrt[2]{\sigma^2} = \sqrt[2]{\frac{\sum (X_i - X_{mean})^2}{\#\ X's\ in\ sample}}$
Normal Distribution		

[1] This is intended to present an abbreviated presentation of the included concepts in corporate finance and is not intended to be a full or complete representation of the concepts, models, metrics or the underlying foundations from which they are built.

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