Skewness is a property of probability distributions characterizing the degree of asymmetry. The value of the skewness of a distribution includes the sign, which signals the direction of the asymmetry, and the numerical value, which measures of pronounced the asymmetry is. Intuitively, a unimodal distribution, as is the case for the returns on most financial instruments, is negatively (or left-) skewed if its left tail is longer and its mass is concentrated on the right tail, and positively (or right-) skewed if the opposite is true. Rule of thumbs exist involving the values of different location measures to determine the skewness, e.g. comparing mean and median; these approximations can fail if the distribution is multimodal or if one tail is short and thick, while the other is long and thin. Despite the variety of alternative definitions of measures of skewness, the current convention is that the skewness $\gamma\_1$ is the third standardized central moment of a distribution.

**\*\*Mathematical Definition:\*\***

$$\gamma\_1 = \mathrm{E}\left[\left(\frac{X - \mu}{\sigma}\right)^{3}\right]$$

This parameter is important when analyzing the behavior of financial assets and can be a measure of how often extreme market movements in one direction happen compared to events of opposite sign. Assets deemed safe often exhibit positive skewness in virtue of price surges during market meltdowns, whereas riskier investments tend to display negative skewness owing to prices precipitating in times of crisis.