



**Analyst Guide**  
POWERED BY SOLEADEA

**CFA LEVEL 1**

**Must-Understand CFA Relations**

**E-BOOK**

**SAMPLE**

The kurtosis of a normal distribution always equals \_\_\_\_\_. So for platykurtic distributions, kurtosis is less than \_\_\_\_\_ and for leptokurtic ones, greater than \_\_\_\_\_.

The excess kurtosis of a normal distribution is \_\_\_\_\_. For leptokurtic distributions, excess kurtosis is \_\_\_\_\_. The excess kurtosis of platykurtic distributions is \_\_\_\_\_.

Fat tails means that the probability of extreme results (namely very low or very high ones) is \_\_\_\_\_ than in the case of a normal distribution.

The values of the Sharpe ratio are used to compare the performance of portfolios. Portfolios with \_\_\_\_\_ Sharpe ratios are perceived as better, as they achieve greater mean excess return per unit of standard deviation.

The greater the coefficient of variation, the greater the \_\_\_\_\_. So, if – for example – you compare the performance of two investment funds, the fund with the greater coefficient of variation will be characterized by \_\_\_\_\_.

[Find answers on the next page →](#)

→ The kurtosis of a normal distribution always equals **3**. So for platykurtic distributions, kurtosis is less than **3** and for leptokurtic ones, greater than **3**.

→ The excess kurtosis of a normal distribution is **zero**. For leptokurtic distributions, excess kurtosis is **greater than zero**. The excess kurtosis of platykurtic distributions is **less than zero**.

→ Fat tails means that the probability of extreme results (namely very low or very high ones) is **higher** than in the case of a normal distribution.

→ The values of the Sharpe ratio are used to compare the performance of portfolios. Portfolios with **higher** Sharpe ratios are perceived as better, as they achieve greater mean excess return per unit of standard deviation.

$$S_R = \frac{\bar{R}_p - \bar{R}_f}{s_p}$$

**Where:**

- ▶  $\bar{R}_p$  – mean return on the portfolio,
- ▶  $\bar{R}_f$  – mean return on a risk-free asset,
- ▶  $s_p$  – standard deviation of return on the portfolio.

→ The greater the coefficient of variation, the greater the **risk per unit of the arithmetic mean**. So, if – for example – you compare the performance of two investment funds, the fund with the greater coefficient of variation will be characterized by **greater risk**.

$$CV = \frac{s}{\bar{X}}$$

**Where:**

- ▶ CV – coefficient of variation,
- ▶  $\bar{X}$  – sample mean,
- ▶  $s$  – sample standard deviation.

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find out more at:

<https://analyst.guide/#relations>