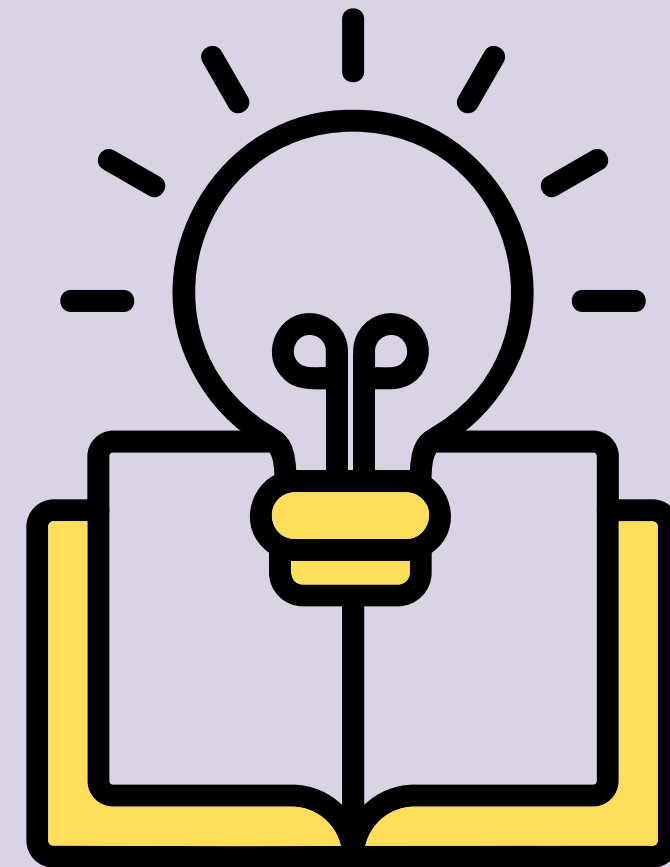




B

# Understanding Beta

Beta is a number that shows how much a stock's price moves compared to the market. For example, if Reliance stock has a beta of 1, it moves the same as the Nifty 50 index; if the index rises 10%, Reliance rises about 10%.



# Types of Beta

1

2

3

4

5

## Market Beta

Shows how a stock's price moves compared to the market, like the Nifty 50. Example: If Reliance has a market beta of 1, it rises 10% when Nifty 50 rises 10%.

## Levered Beta

Measures a stock's risk, including the company's debt, which increases market sensitivity. Example: Reliance's levered beta of 1.2 means it rises 12% if Nifty 50 rises 10%.

## Unlevered Beta

Shows a stock's risk without debt, focusing only on its business operations. Example: Reliance's unlevered beta of 0.8 means it rises 8% when Nifty 50 rises 10%.

## Portfolio Beta

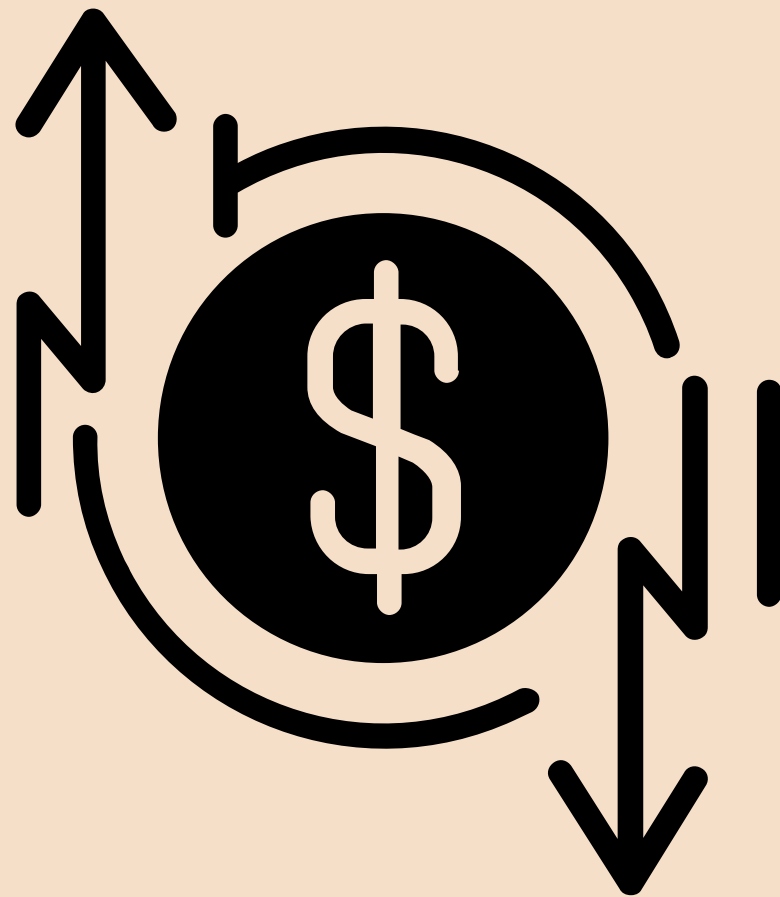
Measures the combined risk of all stocks in a portfolio compared to the market. Example: A portfolio with Reliance and others has a beta of 0.9, rising 9% if Nifty rises 10%.

## Asset Beta

Reflects the risk of a company's assets, adjusted for debt and tax effects. Example: Reliance's asset beta of 0.7 means its business rises 7% when Nifty rises 10%.

# Calculating Beta

$$\beta = \frac{\text{Covariance (Stock Returns, Market Returns)}}{\text{Variance (Market Returns).}}$$



## Steps:

1. Find how stock and market returns move together (covariance)
2. Divide by how much market returns vary (variance)

## Example:

If covariance = 0.015 and market variance = 0.01,  
 $\beta = 0.015 \div 0.01 = 1.5$

# BETA

## INTERPRETATION



$$\beta < 1$$

Stock is safer, moves less than the market (market up 10%, stock up 8%).

$$\beta > 1$$

Stock is riskier, moves more than the market (market up 10%, stock up 12%).

$$\beta = 1$$

Stock moves exactly like the market (market up 10%, stock up 10%); normal risk.

$$\beta = 0$$

Rare; stock doesn't move with the market (0) or moves opposite (e.g., market up 10%, stock down 5% for -0.5).

### Key Points :

Beta shows how a stock's price moves compared to the market, like the Nifty 50, to measure its risk level.

Use for Report: Helps assess how volatile a stock is compared to the market, guiding your investment analysis.

---

# Thank you

---

By - Alok Goutam