INDEX NUMBERS

Subscript 0 ⇒ Base year | 1 ⇒ Current year

Price Relatives

$$I = \frac{P_1}{P_0} \times 100$$

Simple Aggregative Price Index

$$P_{01} = \frac{\Sigma P_1}{\Sigma P_0} \times 100$$

Simple Average Price Relative

$$P_{01} = \frac{\Sigma I}{n}$$

Weighted Aggregative Price Index Number

$$P_{01} = \frac{\Sigma P_1 \cdot W}{\Sigma P_0 \cdot W} \times 100$$

Laspeyre's Index (I_L)

$$I_L = \frac{\Sigma P_1 q_0}{\Sigma P_0 q_0} \times 100$$

Paasche's Index (I_P)

$$I_P = \frac{\Sigma P_1 q_1}{\Sigma P_0 q_1} \times 100$$

Dorbish-Bowley Index (I_{DB})

$$I_{DB} = \frac{I_L + I_P}{2}$$

OR

$$I_{DB} = \frac{1}{2}\left(\frac{\Sigma P_1 q_0}{\Sigma P_0 q_0} + \frac{\Sigma P_1 q_1}{\Sigma P_0 q_1}\right) \times 100$$

Fisher's Index (I_F)

$$I_F = \sqrt{I_L \times I_P}$$

OR

$$I_F = \sqrt{\frac{\Sigma P_1 q_0}{\Sigma P_0 q_0} \times \frac{\Sigma P_1 q_1}{\Sigma P_0 q_1}} \times 100$$

Marshall EdgeWorth Index (I_{ME})

$$I_{ME} = \frac{\Sigma P_1 q_0 + \Sigma P_1 q_1}{\Sigma P_0 q_0 + \Sigma P_0 q_1} \times 100$$