

ISEP LUTPI NUT
2113191079 (T. Informatika / A2)

1. Indeks tidak tertimbang

Jenis Barang	Harga per unit (P)			Produksi (Q)			P_t/P_0	Q_t/Q_0
	1993	1994	1995	1993	1994	1995		
A	300	315	330	35	25	40	1,1	1,142
B	100	125	150	4	10	50	1,5	12,5
C	500	600	550	1	2	3	1,1	3
Jumlah	900		1030	40		93	3,7	16,642

A. Angka indeks sederhana Harga agregatis

$$I = \frac{\sum P_t}{\sum P_0} \times 100\% = \frac{1030}{900} \times 100\% = 1,144 \times 100\% = 114,4\%, //$$

B. Angka indeks ~~kuantitas~~ sederhana kuantitas agregatis

$$I = \frac{\sum Q_t}{\sum Q_0} \times 100\% = \frac{93}{40} \times 100\% = 2,325 \times 100\% = 232,5\%, //$$

C. Angka indeks sederhana Harga rata-rata relatif

$$\begin{aligned} I_{t,0} &= \frac{1}{n} \sum \left\{ \frac{P_t}{P_0} \times 100\% \right\} \\ &= \frac{1}{3} \times 370\% = 0,333 \times 370\% \\ &= 0,333 \times 370\% \\ &= 123,333\%, // \end{aligned}$$

D. Angka indeks sederhana kuantitas rata-rata relatif

$$\begin{aligned} I_{t,0} &= \frac{1}{n} \sum \left\{ \frac{Q_t}{Q_0} \times 100\% \right\} \\ &= \frac{1}{3} \times 1664,2\% \\ &= 0,333 \times 1664,2\% \\ &= 554,73\%, // \end{aligned}$$

Jenis Barang	Harga per unit (p)			Harga produksi (q)			Po.Qo	Po.Qt	Pt.Qt	Pt.Qo
	1993	1994	1995	1993	1994	1995				
A	300	315	130	35	25	40	10500	12000	13200	11550
B	100	125	150	4	10	50	400	5000	7500	600
C	500	600	550	1	2	3	500	1500	1650	550
							11400	18500	22350	12700

2. Indeks Tertimbang

A. Indeks Harga agregatis tertimbang

1. Indeks Laspeyres

$$L = \frac{\sum P_t Q_o}{\sum P_o Q_o} \times 100\% = \frac{12700}{11400} \times 100\% = 1,114 \times 100\% = 111,4\%$$

2. Indeks Pasche

$$P = \frac{\sum P_t Q_t}{\sum P_o Q_t} \times 100\% = \frac{22350}{18500} \times 100\% = 1,2081 \times 100\% = 120,81\%$$

B. Indeks Produksi agregatis tertimbang

1. Indeks Laspeyres

$$L = \frac{\sum P_o Q_t}{\sum P_o Q_o} \times 100\% = \frac{18500}{11400} \times 100\% = 1,6228 \times 100\% = 162,28\%$$

2. Indeks Pasche

$$P = \frac{\sum P_t Q_t}{\sum P_t Q_o} \times 100\% = \frac{22350}{12700} \times 100\% = 1,7598 \times 100\% = 175,98\%$$

C. Variasi dari indeks Harga tertimbang

1. Indeks Fischer = $I = \sqrt{L_{\text{Harga}} \times P_{\text{Harga}}}$

$$I = \sqrt{111,4 \times 120,81} = \sqrt{13458,234} = 116,01\%$$

2. $I = \frac{1}{2} (L_{\text{Harga}} + P_{\text{Harga}})$

+

2. Indeks Drobisch

$$I = \frac{1}{2} (L_{\text{Harga}} + P_{\text{Harga}})$$

$$I = 0,5 (111,4 + 120,81) = 116,105\%$$

D. Variasi Indeks Produksi Tertimbang

1. Indeks Fischer $I = \sqrt{L_{\text{Produk}} \times P_{\text{Produk}}}$

$$I = \sqrt{162,28 \times 175,98} = \sqrt{28558,01} = 169,99\%$$

2. Indeks Drobisch = $\frac{1}{2} (L_{\text{Produk}} + P_{\text{Produk}})$

$$I = 0,5 (162,28 + 175,98) = 0,5 \times 338,26 = 169,13\%$$