

i) ΔTK \rightarrow Las peras
u) años/dóms

$$IPD = \frac{GDP^N}{GDP^R}$$

$$GDP = P^A \cdot Q^A$$

$$KK_t = P_t^1 \times Q_t^1 + P_t^2 \times Q_t^2 = \sum_{j=1}^J P_{jt} \times Q_{jt}$$

Paache

$$\Delta TK = \frac{KK_{t+1}}{KK_t}$$

GDP_t, GDP_{t+1}

$$y = \frac{GDP_{t+1} - GDP_t}{GDP_t}$$

Σα αβιησηη I

Q		P	
A	B	A	B
4	3	1€	4€
2	3	2€	4€

$$\begin{aligned} \text{i) } GDP_{2010}^N &= P_{2010}^A \times Q_{2010}^A + P_{2010}^B \times Q_{2010}^B \\ &= 1 \times 4 + 4 \times 3 = \underline{\underline{16}} \end{aligned}$$

$$\begin{aligned} GDP_{2011}^N &= P_{2011}^A \times Q_{2011}^A + P_{2011}^B \times Q_{2011}^B \\ &= 4 + 12 = \underline{\underline{16}} \end{aligned}$$

ΔTK → Asperos
u) απρόδοτος

GDP^N

$$GDP = P^A \times Q^A + P^B \times Q^B$$

b) Έτος βάσης 2010

$$GDP_{2010}^R = P_{2010}^A \times Q_{2010}^A + P_{2010}^B \times Q_{2010}^B = 16$$

$$GDP_{2011}^R = P_{2010}^A \times Q_{2011}^A + P_{2010}^B \times Q_{2011}^B = 1 \times 2 + 4 \times 3 = 2 + 12 = 14$$

$$g_{2011}^{2010} = \frac{GDP_{2011}^R - GDP_{2010}^R}{GDP_{2010}^R} = \frac{14 - 16}{16} = \frac{-2}{16} = -1/8 \quad | \quad IPD = \frac{GDP_{2011}^N}{GDP_{2011}^R} = \frac{16}{14} = 1.14$$

Aufgabe 2

$$Q_2 = \frac{Q_1}{2}$$

$$P_2 = 2P_1$$

$$IPD = \frac{GDP_2^N}{GDP_1^R} = \frac{Q_2 \times P_2}{Q_1 \times P_1} = \frac{\frac{Q_1}{2} \times 2P_2}{\frac{Q_1}{2} \times P_1} = \frac{2P_1}{P_1} = 2$$

$$= \sum_{j=1}^n P_{jt} \times Q_{jt}$$

(Tache)

Άσκηση 2

$$Q_2 = \frac{Q_1}{2} \quad | \quad IPD = \frac{GDP_2^N}{GDP_1^R} = \frac{Q_2 \times P_2}{Q_1 \times P_1} = \frac{\frac{Q_1}{2} \times 2P_1}{Q_1 \times P_1} = \frac{2P_1}{P_1} = 2$$

$$P_2 = 2P_1$$

Άσκηση 3

$$GDP_{2014}^N = €10,000$$

$$GDP_{2015}^N = €15,000$$

$$GDP^N = P^N \times Q^N$$

Άσκηση 4

$$GDP_1^R, GDP_1^N ?$$

ΑΠΟΚΗ ΑΠΟΤΙΣ

Τ ΜΤΚΑ
δυναμία
*Sobek
A

$$K_t = P_t^1 \times Q_t^1 + P_t^2 \times Q_t^2$$

$$\Delta TK = K_{t+1} - K_t$$

$$\sum_{j=1}^n P_{jt} \times Q_{jt}$$

$$GDP = P^1 \times Q^1 + P^2 \times Q^2$$

Paache

A GUMON 6

• A, B, y_0^A, y_0^B

• g_A, g_B

• $y_t^A = y_0^A \cdot e^{t \cdot g_A}$

• $y_t^B = y_0^B \cdot e^{t \cdot g_B}$

• $y_0^A = \frac{y_0^B}{2} \Rightarrow g_A = 2g_B$

$$t=5 \Rightarrow y_5^A = y_5^B \Rightarrow y_0^A \cdot e^{5g_A} = y_0^B \cdot e^{5g_B} \Rightarrow \frac{y_0^B}{2} \cdot e^{t \cdot 2g_B} = y_0^B \cdot e^{t \cdot g_B}$$

$$\frac{1}{2} e^{t \cdot 2g_B} = e^{t \cdot g_B} \Rightarrow e^{t \cdot 2g_B} = 2 e^{t \cdot g_B} \Rightarrow \ln(e^{t \cdot 2g_B}) = \ln(2 \cdot e^{t \cdot g_B}) \Rightarrow$$

$$\Rightarrow t \cdot 2g_B = \ln 2 + t \cdot g_B \Rightarrow t \cdot 2g_B - t \cdot g_B = \ln 2 \Rightarrow$$

$$t \cdot g_B = \ln 2 \Rightarrow t = \frac{\ln 2}{g_B}$$

Ομάδα αβιήσεων

Y	Q		P	
	A	B	A	B
2010	4	3	1€	4€
2011	2	3	2€	4€

$$\begin{aligned}
 \text{a) } \text{GDP}_{2010}^N &= P_{2010}^A \times Q_{2010}^A + P_{2010}^B \times Q_{2010}^B \\
 &= 1 \times 4 + 4 \times 3 = \underline{\underline{16}}
 \end{aligned}$$

$$\text{GDP}_{2011}^N = P_{2011}^A \times Q_{2011}^A + P_{2011}^B \times Q_{2011}^B$$

$$\text{GDP}_{2011}^N = 4 + 12 = \underline{\underline{16}}$$

Άσκηση 7

	2006	2010
Τιμή IX	5000€	6000€
Τιμή Ψηφί	1€	2€
Ποσότητα IX	100	120
Ποσότητα Ψηφί	500,000	400,000

$$\alpha) \text{GDP}_{2006}^N = P_{2006}^{IX} \times Q_{2006}^{IX} + P_{2006}^{\Psi} \times Q_{2006}^{\Psi}$$

$$= 5000 \times 100 + 500,000 = 1,000,000$$

$$\text{GDP}_{2006}^R = P_{2006}^{IX} \times Q_{2006}^{IX} + P_{2006}^{\Psi} \times Q_{2006}^{\Psi} = 1,000,000$$

$$\text{IPD} = \frac{\text{GDP}^N}{\text{GDP}^R} = 1$$

$$\text{KK}_{2006} = \left(P_{2006}^{IX} \times Q_{2006}^{IX} \right) \times 0.2 + \left(P_{2006}^{\Psi} \times Q_{2006}^{\Psi} \right) \times 0.8$$

$$= 500,000 \times 0.2 + 500,000 \times 0.8 = 500,000$$

$f(t_1, t_2)$

$$KK_{2006} = 500,000$$

$$KK_{2010} = (P_{2010}^{ix} \times Q_{2006}^{ix}) \times 0,2 + (P_{2010}^{iv} \times Q_{2006}^{iv}) \times 0,8 =$$
$$= 600,000 \times 0,2 + 1,000,000 \times 0,8$$

$$KK_{2010} = 120,000 + 800,000 = 920,000$$

$$\Delta TK_{2010} = \frac{KK_{2010}}{KK_{2006}} = \frac{920}{500} = 1,84$$