ECON 1002 Tutorial-1

Large ⇒ economy as a whole | individuals / firms / consumers (small)

1. What is macroeconomics about? How is it different from microeconomics? Why might macroeconomics be relevant to businesses?

larger units

policy-making

unemployment — growth (GDP) — inflation (cost of businesses)
→ interest rates, — international trade

2. Consider the following data for two countries.

			Country A	Country B
C	Household Consumption		100	100
G	Government Expenditure		100	100
I	Total Gross Fixed Capital Expenditure } investment		50	150
	Changes in Inventories		50	-50
X	Exports		20	20
M	Imports		20	20

$$A \Rightarrow 100 + 100 + (50+50) + 20 - 20 = \underline{300}$$

a. Calculate GDP for both countries.

$$GDP = C + I + G + X - M$$

$$B \Rightarrow 100 + 100 + 150 - 50 + 20 - 20 = \underline{300}$$

b. Comment on the usefulness of these figures for deciding which, if any, of these two countries is likely to be experiencing an economic recession.

Capital expenditure is less in A than B
Inventories (unsold items) in A depict excess supply
while in B there is excess demand
} A is experiencing recession

3. An economy produces three goods: cars, computers, and oranges. Quantities and prices per unit for years 2007, 2008 and 2009 are as follows:

	Q_1 2007	P_1	Q_2 2008	P_2	Q_3 2009	P_3
	Quantity	Price	Quantity	Price	Quantity	Price
Cars	10	$2,000	12	$3,000	11	$2,500
Computers	4	$1,000	6	$500	5	$750
Oranges	1000	$1	1000	$1	1000	$1

→ value ($P \times Q$) of all final goods and services

a. What is nominal GDP in 2007, 2008 and in 2009? By what percentage does nominal GDP change from 2007 to 2008, and 2008 to 2009?

b. Using the prices for 2007 (base) as the set of common prices, what is real GDP in 2007, 2008 and in 2009? By what percentage does real GDP change from 2007 to 2009 and 2008 to 2009?

$P_1 \times Q_1$	$P_2 Q_2$	$P_3 \cdot Q_3$	$P_1 Q_2$	$P_1 Q_3$
$10 \times 2000 = 20000$	36000	27500	24000	22000
$4 \times 1000 = 4000$	3000	3750	6000	5000
$1 \times 1000 = 1000$	1000	1000	1000	1000
$GDP_{2007} = \underline{25000}$	$GDP_{2008} = \boxed{40000}$	$GDP_{2009} = \underline{32250}$	$RGDP_{2008} = 31000$	$RGDP_{2009} = 28000$

$$\% \text{ change} = \frac{Current - Previous}{Previous} \times 100$$

$$\% \Delta GDP_{2007-2008} = \frac{GDP_{2008} - GDP_{2007}}{GDP_{2007}} \times 100 = \frac{40000 - 25000}{25000} \times 100 = \boxed{60\%}$$

GDP ↑ from 2007 to 2008

$$\% \Delta GDP_{2008-09} = \frac{32250 - 40000}{40000} \times 100 = \frac{-7750}{40000} \times 100 = \underline{-19\%}$$

GDP ↓ from 2008 to 2009

(b) RGDP $<$ prices from base year / quantity from current year

$$RGDP_{2007} = \sum P_{2007} q_{2007} = \sum P_1 q_1 = 25000$$

$$RGDP_{2008} = \sum P_{2007} \cdot q_{2008} = \sum P_1 q_2 = \underline{31000}$$

$$RGDP_{2009} = 28000$$

$$\% \Delta RGDP_{07-08} = \frac{31000 - 25000}{25000} \times 100 = \boxed{24\%}$$

$$\% \Delta RGDP_{08-09} = \frac{28000 - 31000}{31000} \times 100 = \underline{-9.7\%}$$

c. Using the prices for (2008) as the set of common prices, what is real GDP in 2007 and in 2008? By what percentage does real GDP change from 2007 to 2008 and 2008 to 2009?

$$GPP_{2008} = RGDP_{2008} = 40000$$

d. Why are the two output growth rates constructed in (b) and (c) different? Which one is correct? Explain your answer.

gives you a number

4. What are some of the problems associated with using GDP as a measure of economic welfare? Do you think economists are justified in their use of GDP as a measure of economic welfare? Explain.

→ Social welfare { rights
intellectual property
education
health
political stability
security }

WDI { Human Development Index
Social Dev. Index }