Student ID: 6304641449

Question 1 Fill in the blanks. You must show your work.

I
X

Year	2014	2015
Nominal gross national income (GNI) ($ billion)	291.53	292.56
Factor income sent abroad ($ billion)	68.30	75.90
Factor income earned abroad ($ billion)	8.13	9.49
Nominal gross domestic product (GDP) ($ billion)	351.70	358.97
GDP deflator	100	100.88
Real GDP ($ billion)	351.70	355.84

stay the same

GDP deflator = $\frac{\text{Nominal GDP}}{\text{real RDP}} \times 100$ $100.88 = \frac{358.97}{\text{real GDP}} \times 100$ real GDP = 355.84

GDP = GNI + I - X

2015 $358.97 = GNI + 75.90 - 9.49$ GNI = 292.56

2014 GDP = 291.53 + 68.30 - 8.13 GDP = 351.70

Question 2 Fill in the blanks. You must show your work.

Year	2012	2013	2014	2015
Consumer price index (CPI)	99.08	100.55	102.51	107.52
Inflation rate (%)	–0.92	1.48	1.95	4.89
Employed (millions)	12.50	12.60	12.85	13.05
Unemployed (millions)	0.99	0.71	0.68	0.61
Population (millions)	20.75	21.48	21.82	22.02
Unemployment rate (%)	7.34	5.33	5.03	4.47

inflation rate = $\frac{\text{based year} - \text{last year}}{\text{based year}} \times 100$

2014 = $\frac{102.51 - 100.55}{100.55} \times 100 = 1.95\%$

2015 = $\frac{107.52 - 102.51}{102.51} \times 100 = 4.89\%$

unemployment rate = $\frac{\text{unemployed}}{\text{unemployed + employed}} \times 100$

2013 = $\frac{0.71}{0.71 + 12.60} \times 100 = 0.0533 \times 100 = 5.33$

2012 = $\frac{0.99}{0.99 + 12.50} \times 100 = 0.0734 \times 100 = 7.34$

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Question 3 Calculate GDP and GNP. You must show your work.

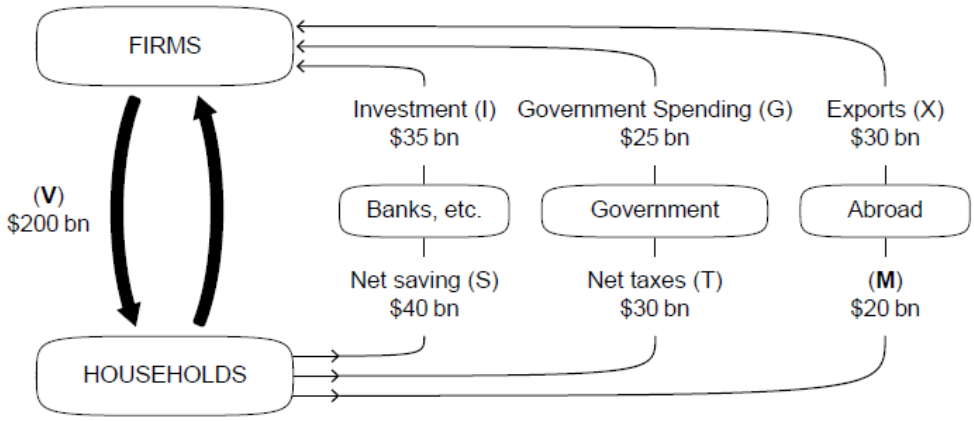
Item	$ billion
Imports	289
Transfer payments	253
Saving	82
Exports	234
Income from employment	1160
Taxation	396
Consumer spending	745
Investment	229
Net factor income from abroad	–111
Government spending on goods and services	437

GDP = C + I + G + (X − M) = 745 + 229 + 437 + (234 − 289) = 1356

GNP = GDP + net factor income from aboard

= 1356 + (−111) = 1245

Question 4 Answer the following questions.



4.1 What do the flows (V) and (M) represent?

V = goods & services M = import

4.2 Does the government run a budget deficit or surplus? By how much?

surplus by $ 5 bn

4.3 Does the country run a trade deficit or surplus? By how much?

surplus by $ 10 bn

4.4 Is the economy in equilibrium? Why or why not?

equilibrium because injection = leakage

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Question 5 Why does CPI tend to be higher than GDP deflator?

Year	Consumer price index (CPI)	GDP deflator	GDP ($ million)
2014	100	100	4465
2015	105.35	105.11	4814
2016	109.21	108.92	5026

CPI quantity is fixed but the price isn't. it may be affected by inflation of production.

Question 6 Answer the following questions.

	Price per unit in dollars ($)	
	2013	2014
Pizza	12.50	12.90
Chocolate milk (litres)	1.15	1.25
Jazz concert	45.00	46.00
Total cost of the typical basket	690	714

P·Q 2013: 125 + 115 + 450

P·Q 2014: 129 + 125 + 460

The typical basket of goods purchased by an average consumer consists of 10 pizzas, 100 litres of chocolate milk and 10 jazz concerts.

6.1 With 2013 as the base year, calculate CPI of 2013 and 2014.

$CPI_{2013} = \frac{P_{2013} \cdot Q_{Base}}{P_{Base} \cdot Q_{Base}} \times 100$

$= 100\%$

$CPI_{2014} = \frac{P_{2014} \cdot Q_{Base}}{P_{Base} \cdot Q_{Base}} \times 100 = \frac{714}{690} \times 100 = 103.48\%$

6.2 Calculate the inflation rate of 2014.

$\frac{CPI_{2014} - CPI_{2013}}{CPI_{2013}} = \frac{714-690}{690} = 3.478\%$

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Question 7 Fill in the blanks. You must show your work.

Year	Nominal GDP ($ billions)	GDP deflator	Real GDP ($ billions)	Annual real growth rate (%)	Population	Real GDP per capita ($)
2014	308.12	98.9	311.55		13273644	23471.32
2015	321.99	100	321.99	3.35	13340012	24137.16
2016	332.65	102.2	325.49	1.09	13473412	24157.95

$\frac{311.55 \times 10^9}{13273644}$

$\frac{321.99 \times 10^9}{13340012}$

$\frac{325.49 \times 10^9}{13473412}$

Real GDP = $\frac{\text{Nominal GDP}}{\text{GDP deflator}} \times 100$

Real GDP 2014 = $\frac{308.12}{98.9} \times 100 = 311.55$

Real GDP 2015 = $\frac{321.99}{100} \times 100 = 321.99$

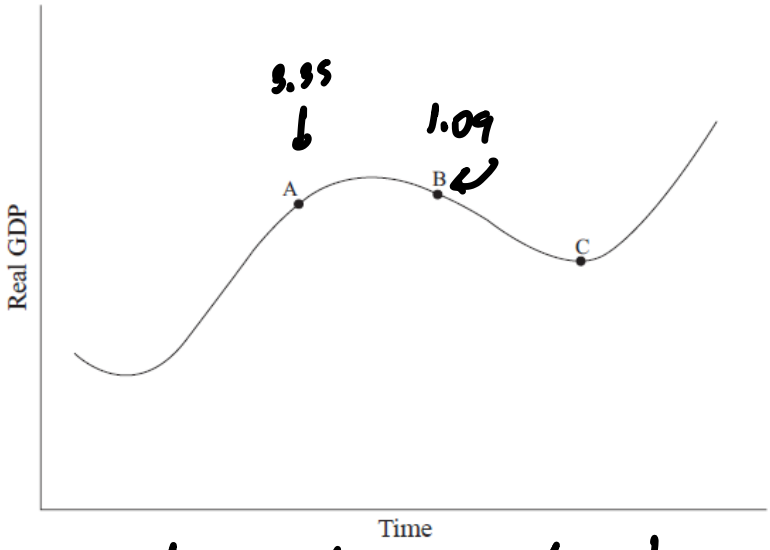
Real GDP 2016 = $\frac{332.65}{102.2} \times 100 = 325.49$

Base year - Old year / Old year $\times 100$

2015 % = $\frac{GDP_{2015} - GDP_{2014}}{GDP_{2014}} \times 100 = 3.35\%$

2016 = $\frac{325.49 - 321.99}{321.99} \times 100 = 1.09\%$

Question 8 Based on the data above, which position – A, B, or C – best describes the economy in 2016? Why?



point B because due to annual growth rate, from year 2015 to 2016 growth rate is 1.09%. mean that it slightly increase from last year

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Question 9 Answer the following questions.

Country A is a closed economy with no government. The marginal propensity to save in the country is 0.25. (MPS)

9.1 Calculate the value of the (investment) multiplier.

$\frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$

9.2 Due to the initial investment made by firms and the multiplier effect, the (equilibrium) output in the economy has increased by $200m. Calculate the value of the initial investment.

$4 \times \$200\,m = \$800\,m$

Country B is an open economy with government.

9.3 Do you think the multiplier effect in Country B will be larger than that of Country A? Why or why not?

Yes in open economy multiplier $\frac{1}{MPC} = \frac{1}{MPS + MPM}$

in closed economy multiplier $\frac{1}{MPC} = \frac{1}{MPS}$