Student ID: 6304640011

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

Year	2014	2015
Nominal gross national income (GNI) ($ billion)	291.53	292.56
Factor income sent abroad ($ billion) ex	68.30	75.90
Factor income earned abroad ($ billion) im	8.13	9.49
Nominal gross domestic product (GDP) ($ billion)	351.7	358.97
GDP deflator	100	100.88
Real GDP ($ billion)	351.7	355.84

$\frac{\text{Nominal GDP}_{2015}}{\text{Real GDP}_{2015}}$: Deflator_{2015} , $\frac{358.97}{x} \times 100 = 100.88$, $\frac{358.97}{100.88} = x$ $x = 355.84$

Deflator_{2014} , $\frac{351.7}{x} \times 100 = 100$, $x = 351.7$

GNI = GDP − (export − import)

= 358.97 − (75.9 − 9.49)

= 292.56

GNI + (export − import) = GDP

GDP = 291.53 + (68.3 − 8.13)

= 351.7

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

$\frac{CPI_{2014} - CPI_{2013}}{CPI_{2013}} \times 100 = \frac{102.51 - 100.55}{100.55} \times 100 = 1.95$

$\frac{CPI_{2015} - CPI_{2014}}{CPI_{2014}} \times 100 = \frac{107.52 - 102.51}{102.51} \times 100 = 4.89$

$\text{Unemployment rate} = \frac{\text{Unemployed}}{\text{Unemployed} + \text{employed}} \times 100$

$\text{Unemployment rate}_{2012} = \frac{0.99}{0.99 + 12.5} \times 100 = \frac{0.99}{13.49} \times 100 = 7.34$

$\text{Unemployment rate}_{2013} = \frac{0.71}{0.71 + 12.60} \times 100 = 5.33$

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

Item	$ billion
Imports (m)	289
Transfer payments X	253
Saving X	82
Exports (x)	234
Income from employment X	1160
Taxation X	396
Consumer spending ✓ C	745
Investment ✓ I	229
Net factor income from abroad GNP	–111
Government spending on goods and services ✓ G	437

$C + I + G + (x - m)$

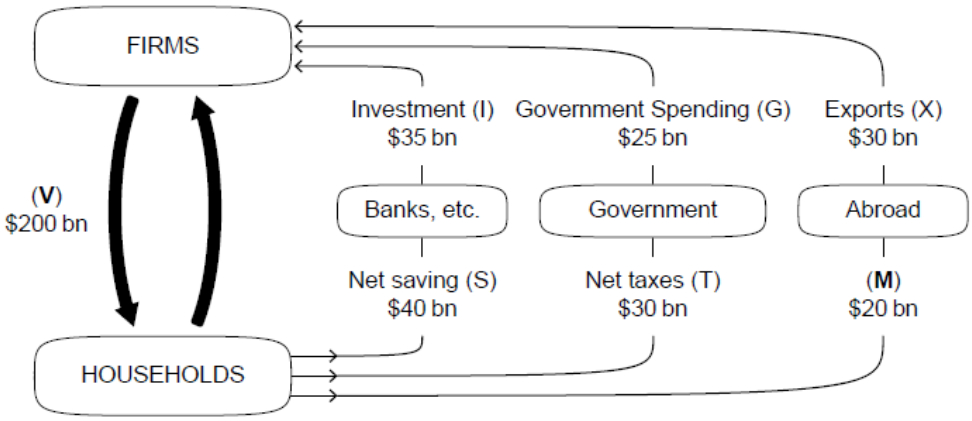
GDP = C + I + G + (x - m)

= 745 + 229 + 437 + (234 - 289)

= 1356

GNP = GDP + NFFI = 1356 - 111 = 1245

Question 4 Answer the following questions.



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

M) import V) income

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?

Deficit by $110 bn

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

No, because circular flow getting smaller

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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

≈ base (updates)

Because in GDP deflator we don't fix Q. In the other hand, we fixed Q in CPI so if there are an inflation rate in price, Q also fixed (in CPI) that why the number of CPI may be higher than the number of GDP deflator.

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	125+115+450 = 690	129+125+460 = 714

Q
10
100
10

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.

In 2013, CPI = 690

In 2014, CPI = 714

6.2 Calculate the inflation rate of 2014.

CPI Inflation rate = $\frac{714-690}{690} \times 100$

= 3.48 %.

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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	311.95		13273644	23501.46
2015	321.99	100	321.99	3.22	13340012	24137.16
2016	332.65	102.2	325.49	2.2	13473412	24157.95

GDP deflator = $\frac{\text{Nom GDP}}{\text{Real GDP}} \times 100$ = $\frac{\text{Nom}}{\text{deflator}} \times 100$; real

2014 = $\frac{309.12}{99.9} \times 100 = 311.55$

2015 = $\frac{321.99}{100} \times 100 = 321.99$ 2016 = $\frac{332.65}{102.2} \times 100 = 325.49$

Anual grow rate = $\frac{\text{new} - \text{old}}{\text{old}} \times 100$; 2015 = $\frac{321.99 - 311.95}{311.95} \times 100 = 3.22\%$

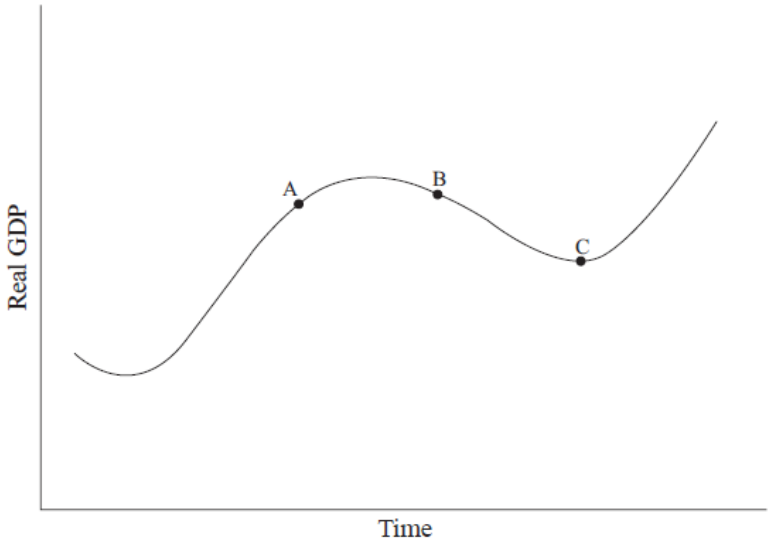
2016 = $\frac{102.2 - 100}{100} \times 100 = 2.2\%$.

Real GDP per capita = $\frac{\text{Real GDP}}{\text{Population}}$ 2014 = $\frac{311.95\$billion}{13273644} = \$23501.46$

2015 = $\frac{321.99\$billion}{13340012} = \$24137.16$

2016 = $\frac{325.49\$billion}{13473412} = \$24157.95$

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



In my opinion, I think point B might represents the economy in 2016, because point A, B tend to remain constant but when B → C are decrease, if we recall in 2019 and 2020 we have COVID-19 that make economy bad so that the graph is decrease. I would answer that B is economy in 2016 as my understanding

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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.

9.1 Calculate the value of the (investment) multiplier.

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.

200/4 = 50

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?

No , because In close economy denominator is only C+I but in open economy C+I+G+X-M (in case that X > M)