

Summer 2020 – Individual Assignment 4 – (15%)

ECON252 – Macroeconomics-

Name	ID

Problem 1: (40 points)

GDP/ Income	Consumption	Investment	Government expenditure	Exports	Imports	Aggregate Expenditure	Inventories	GDP will
8400	6800	1200	1000	400	600	8800	400	Decrease
9200	7400	1200	1000	400	600	9400	200	Decrease
10000	8000	1200	1000	400	600	10000	0	Be constant
10800	8600	1200	1000	400	600	10600	200	Increase
11600	9200	1200	1000	400	600	11200	400	Increase

a) Fill in the blanks. Find the equilibrium GDP.

b) Calculate the MPC and the multiplier.

$$\text{MPC} = \frac{\text{Change in Consumption}}{\text{Change in Income}} = \frac{(9200-6800)}{(11600-8400)} = 0.75$$

$$\text{MPS} = 1 - 0.75 = 0.25$$

$$\text{Multiplier} = 1 / 0.25 = 4$$

c) If the government wants to set a new equilibrium at 12000 by how much it needs to increase the government expenditure?

$$12,000 - 11600 = 400$$

The government will increase government expenditure by 400.



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Problem 2: (30 points)

Explain whether each of the following events will increase, decrease, or have no effect on long-run aggregate supply.

- a) Country invites more expats. **No effect. More expats will have no effect on supply since they do not participate in production.**
- b) Government raises the minimum wage. **Increase. An increase in the minimum wage will increase the purchasing power of the workers hence the unemployed will get attracted by the terms and seek for employment hence increased supply. An increase in minimum wage increases the cost of production and firms will lay off some workers hence the labor market will be flooded increasing the supply.**
- c) Intel invents a new and more powerful computer chip. **Increase. A more powerful chip will increase demand and increased demand will lead to high prices which will attract more supply.**
- d) A new virus results in closedown of many companies. **Decrease. Closure of companies leads to decreased output thus decrease in supply.**



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Problem 3: (30 points)

Consider the data of the following table for the years 2015 and 2016

Year	Real GDP	Potential GDP	Unemployment rate
2015	4.26 trillion \$	4.19 trillion \$	3.5 %
2016	4.27 trillion \$	4.34 trillion \$	4.9%

- a) In 2015, Real GDP is higher than potential GDP. Explain how is this possible
The overall level of employment was higher, the trade activities had increased and the government must have increased its expenditure.
- b) Real GDP in 2016 is higher than 2015, the unemployment rate increased substantially from 2015 to 2016. Why did this increase in unemployment occur? **The country may have employed new technology like use of machines in production that resulted in efficient production thus increase in real GDP but the machines replaced human capital resulting in increased unemployment.**
- c) Was the inflation rate in 2016 to have been higher or lower than the inflation rate in 2015? Does your answer depend on whether the recession that started in December 2015 was caused by a supply shock or by a change in a component of aggregate demand?
The inflation rate in 2016 must have been higher than 2015. The recession that started in December 2015 could have been as a result of a negative supply shock.