

Student: _____
Date: _____
Time: _____

Instructor: Muhammad Rahman
Course: 20101_Econ202_Principles of
Macroeconomics
Book: Case/Fair: Principles of
Macroeconomics 9e

Assignment: Homework_4

1. The MPC .

If planned investment is greater than actual investment, then

.

The relationship between aggregate expenditure and real GDP is best described by:

- ☐ A. If aggregate expenditure falls short of real GDP, inventories will accumulate and real GDP and aggregate income will fall in future.
- ☐ B. If aggregate expenditure is equal to real GDP, inventories will decrease and real GDP and aggregate income will increase in future.
- ☐ C. If aggregate expenditure falls short of real GDP, inventories will decrease and real GDP and aggregate income will fall in future.
- ☐ D. If aggregate expenditure is higher than real GDP, inventories will accumulate and real GDP and aggregate income will fall in future.

Aggregate output is equal to the

and aggregate
income equals the .

Aggregate output is aggregate income.

Answers is the slope of the consumption function

inventories decrease and production increases

A

total quantity of goods and services produced in an economy during a time period

total income received by all the factors of production during a time period

always equal to

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2. Which of the following best describes the relationship between [aggregate expenditure](#) and [real GDP](#)?
- ☐ A. If aggregate expenditure falls short of real GDP, inventories will decrease and real GDP and aggregate income will increase in future
 - ☐ B. If aggregate expenditure falls short of real GDP, inventories will decrease and real GDP and aggregate income will fall in future
 - ☐ C. If aggregate expenditure falls short of real GDP, inventories will accumulate and real GDP and aggregate income will increase in future
 - ☐ D. If aggregate expenditure falls short of real GDP, inventories will accumulate and real GDP and aggregate income will fall in future

Definition

Aggregate expenditure:

Planned aggregate expenditure is the total amount the economy plans to spend in a given period.

Equal to consumption plus planned investment: $AE \equiv C + I$.

Definition

Real GDP:

Nominal GDP adjusted for price changes. Gross domestic product measured in base-year dollars.

Answer: D

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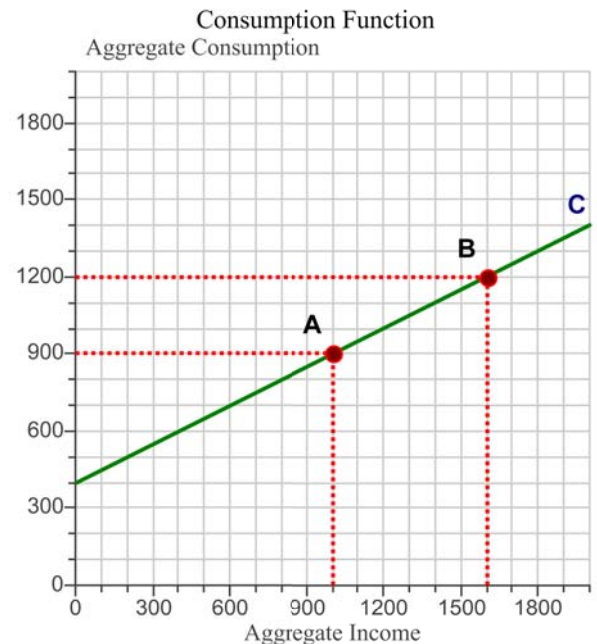
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3. The graph shows two points A and B on the consumption function, C, of a small country Tynika.

Marginal Propensity to Consume (MPC) is

- ☐ A. 0.75
☐ B. 0.90
☐ C. 0.50
☐ D. not possible to determine without additional information



Definition

Marginal Propensity to Consume:

The fraction of a change in income that is consumed, or spent.

Answer: C

4. All of the following changes shift the consumption function *except*:

- ☐ A. an increase in household wealth
☐ B. an increase in interest rate
☐ C. an increase in income
☐ D. expectations of higher income in the future

Answer: C

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5. You are given the following data concerning Freedonia, a legendary country:

Consumption Function: $C = 200 + 0.60Y$

Investment Function: $I = 300$

Aggregate Expenditure Function: $AE = C + I$

Equilibrium: $AE = Y$

Calculate the following:

MPC = . (Enter your response rounded to two decimal places.)

MPS = . (Enter your response rounded to two decimal places.)

The Level of Equilibrium Income, $Y = \$$.

The value of the Investment Multiplier = . (Enter your response rounded to two decimal places.)

The change in the level of equilibrium income if investment increases by \$15. $\Delta Y = \$$.

Answers 0.60

0.40

1250

2.50

37.50

6. If MPC decreases, the value of the investment multiplier

.

Answer: **decreases**

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7. You are given the following data concerning Freedonia, a legendary country:

Consumption Function: $C = 200 + 0.60Y$

Investment Function: $I = 200$

Aggregate Expenditure Function: $AE = C + I$

Equilibrium: $AE = Y$

Calculate the following:

a. the Level of Equilibrium Income, $Y = \square$

b. the value of the Investment Multiplier = \square .

c. the change in the level of equilibrium income if Investment increases by 10. $\Delta Y = \square$.

Answers 1000.00

2.50

25.00

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8. **Textbook Problem #2** The government of Lumpland is enjoying a fat budget surplus with government expenditure $G = 200$ and taxes $T = 250$. Both G and T are independent of income. The consumption function of Lumpland has been estimated to be

$$C = 150 + 0.75(Y - T).$$

Suppose further that investment spending is fixed at $I = 100$.

Calculate the equilibrium level of GDP in Lumpland. Solve for equilibrium levels of Y , C , and S . *Enter your answers to the nearest cent.*

$$Y = \square$$

$$C = \square$$

$$S = \square$$

Now, suppose that the Republican Congress of Lumpland succeeds in reducing taxes by 20 billion to a new fixed level of 230. Determine the value of the tax multiplier.

Tax Multiplier = \square (*enter an integer value and include the minus sign*).

Solve for equilibrium levels of Y , C , and S after the tax cut and check to ensure that the multiplier worked. *Enter your answers to the nearest cent.*

$$Y = \square$$

$$C = \square$$

$$S = \square$$

Answers 1,050.00
 750.00
 50.00
 − 3.00
 1,110.00
 810.00
 70.00

9. **Textbook Problem #3a** During periods of budget surplus (when $G < T$), the government debt

.

Answer: **falls**

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10. **Textbook Problem #7b** Assume that in 2005, the following prevails in the Republic of Nurd:

Government Spending, $G = \$0$

Net Taxes, $T = \$0$

Planned Investment, $I = 30$.

Furthermore it is known that the citizens of Nurd consume 75 percent of their income and save 25 percent. Thus the consumption and saving function of Nurd are given to be:

$$C = 0.75Y_d \text{ and } S = 0.25Y_d, \text{ where disposable income, } Y_d = Y - T.$$

Determine the equilibrium level of income.

Equilibrium Income = (enter your result as a whole number).

Answer: 120

11. We have the following information for an economy. All values are in billion dollars.

Output (Income) Y	Net Taxes T	Disposable Income $Y_d = Y - T$	Consumption Spending C	Saving $S = Y_d - C$	Planned Investment I	Government Purchases G	Planned Aggregate Expenditure $C + I + G$
\$200	\$100	\$100	\$75	\$25	\$80	\$120	\$275
300	100	200	150	50	80	120	350
400	100	300	225	75	80	120	425
500	100	400	300	100	80	120	500
600	100	500	375	125	80	120	575
700	100	600	450	150	80	120	650
800	100	700	525	175	80	120	725
900	100	800	600	200	80	120	800
1000	100	900	675	225	80	120	875
1100	100	1000	750	250	80	120	950
1200	100	1100	825	275	80	120	1025
1300	100	1200	900	300	80	120	1100
1400	100	1300	975	325	80	120	1175

In this economy, equilibrium income/output is .

At $Y = \$1200$, planned aggregate expenditure income, and income or output .

Answers 500

falls short of


falls

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12. In an economy MPC is estimated to be 0.80. The congress has decided that 80 percent of an increase in a specific government expenditure initiative (G) must be covered by an increase in taxes (T). Both G and T are independent of income.

For this economy, the net value of the government spending multiplier is .

Answer: 1.80

13. When the average income tax rates increase as a result of economic expansion, it is known as:

- ☐ A. debt monetization
☐ B. counter cyclical fiscal policy
☐ C. fiscal drag
☐ D. tax multiplier


Answer: C

14. The structural deficit:

- ☐ A. is the same as cyclical deficit.
☐ B. remains the same at full employment.
☐ C. acts as an automatic stabilizer.
☐ D. increases during recessions.


Answer: B

15. **Textbook Problem #10d** In an economy where taxes and government spending do not depend on income, the government spending multiplier is calculated to be 3.

The value of the tax multiplier is .

Answer: -2

16. Suppose that in an economy, net taxes and government spending are independent of income. It is determined that when government spending decreases by \$100 billion, income falls by \$800 billion. In this economy the value of the MPC and MPS are:

MPC = .

MPS = .

Answers 0.87

0.13

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17. We have the following information for a country:

Consumption Function: $C = 100 + 0.80Y_d$

Investment Function: $I = 100$

Government Spending: $G = 150$

Net Taxes: $T = -40 + 0.25Y$

Disposable Income: $Y_d = Y - T$

Equilibrium: $Y = C + I + G$

Determine the level of equilibrium income. $Y = \$$ (enter your response in dollars and cents).

Calculate the amount of taxes collected by the government at equilibrium. $T = \$$ (enter your response in dollars and cents).

Calculate the amount of budget deficit at equilibrium. $G - T = \$$ (enter your response in dollars and cents).

Answers 955.00

198.75

- 48.75
