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Economics 202
Spring 2026

Homework #3 (due by 9:00pm on Tuesday, February 24)

*Please submit your answers to this homework through the Assignment link at Blackboard. **No credit will be given for answers submitted in class or emailed to the professor, regardless of the excuse.** This includes unique excuses like my roommate ate my homework, as well as more traditional excuses like “I lost my Internet”. Please note that all submissions are final, again – regardless of the excuse (which includes “I accidentally hit the submit button”) and that if you do not correctly submit your work, then you will not receive credit. I.e., Blackboard has a Save button and a Save and Submit button, and you must use the Save and Submit button to submit your answers. If you are unfamiliar with Blackboard, then it would be a good idea to visit the class page at Blackboard and check out the homework assignments as they are posted.*

Please note that when Blackboard grades homework answers, more specifically – answers to the fill-in-the-blank questions – your answer must match exactly with the answer that Blackboard is looking for. Below, you’ll find some instructions on how to properly format these answers. A more complete discussion of these rules is provided at Blackboard. Reading this section is strongly recommended.

Formatting matters with the answers in these questions. For this reason, **understand that your answer can be technically correct but graded as wrong because you didn't follow the directions provided below.** Given that formatting is considered part of your answer, a wrongly formatted answer is still a wrong answer. I.e., you will not have points added to your homework score if you got answers wrong due to formatting mistakes. However, this is still something you will want to bring to Professor Haworth’s attention. *In addition, if you are not sure how to round an answer (e.g. whether 3.25 rounds to 3.2 or 3.3), then please contact Professor Haworth to get your questions answered.*

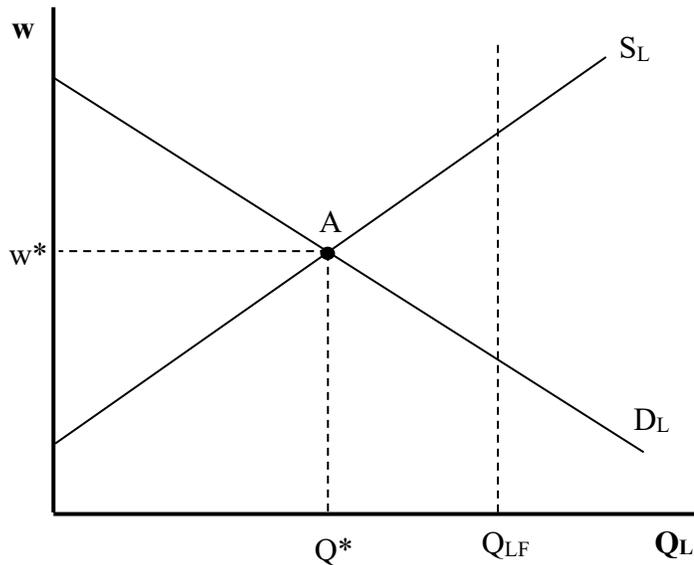
Homework #3 formatting instructions:

*(a) **Questions #10 and 12**, please express your answer as a whole number (with or without a comma) and not in terms of dollars. E.g., an answer of 10,000.25 should be expressed as 10000 (no comma) or 10,000 (with a comma) and not as 10,000.25, \$10,000, etc.*

*(b) **Question #11**, please express your answer as a decimal rounded to the nearest tenth. E.g., an answer of 0.592 should be recorded as 0.6.*

Homework #3 Questions

Use the graph below to answer questions #1-2. This graph depicts the U.S. labor market, which involves the labor demand curve (D_L) and labor supply curve (S_L). Our assumptions with this market match those from class. In addition, Q_L is the quantity of people in this market who work for a specific wage (w), and that Q_{LF} identifies the number of people in the labor force.



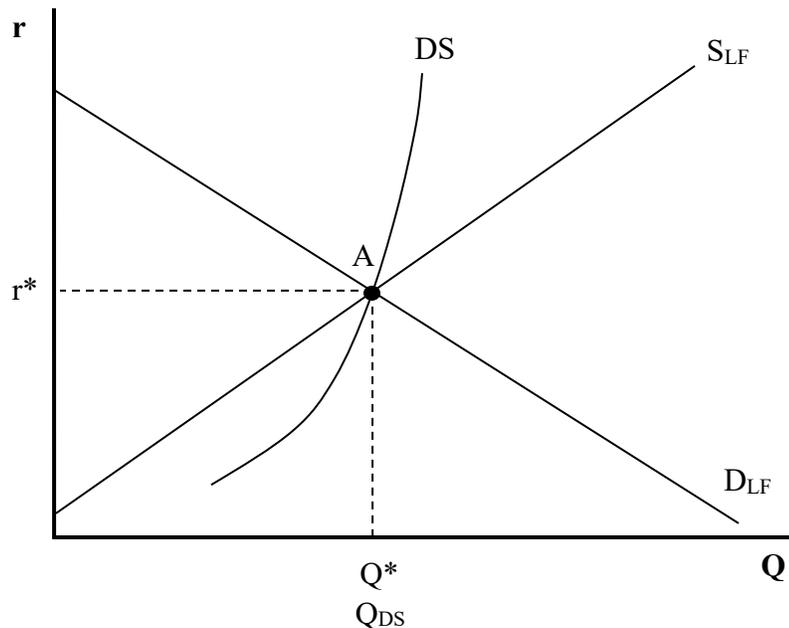
1. If this labor market is operating at pt A, then select every statement below that is currently correct (note that it is possible for there to be multiple correct answers):

- a. no voluntary unemployment currently exists within this market
- b. no involuntary unemployment currently exists within this market
- c. the unemployment within this economy is currently all voluntary unemployment
- d. the unemployment within this economy is currently all involuntary unemployment
- e. the unemployment within this economy currently consists of both voluntary and involuntary unemployment
- f. both answers b and c are correct
- g. both answers a and d are correct

2. If D_L decreases in this labor market, then select every statement below that would be a correct statement about the result of this shift (note that there can be multiple correct answers):

- a. a decrease in D_L leads to an increase in voluntary unemployment if the wage also decreases
- b. a decrease in D_L leads to an increase in involuntary unemployment if the wage also decreases
- c. a decrease in D_L leads to an increase in voluntary unemployment if the wage doesn't decrease
- d. a decrease in D_L leads to an increase in involuntary unemployment if the wage doesn't decrease
- e. a decrease in D_L always leads to an increase in both voluntary and involuntary unemployment
- f. both answers b and c are correct
- g. both answers a and d are correct

Use the graph below to answer questions #3-4. This graph depicts the U.S. market for loanable funds, which involves the demand for loanable funds curve (D_{LF}), the supply of loanable funds curve (S_{LF}) and a curve which reflects the quantity of domestic savings within the U.S. at each possible interest rate (DS). Our assumptions with this market match those from class. In addition, Q_{DS} reflects the quantity of domestic savings in this economy at the current interest rate, where Q^* is the quantity of loanable funds exchanged in this market at the current interest rate (r).



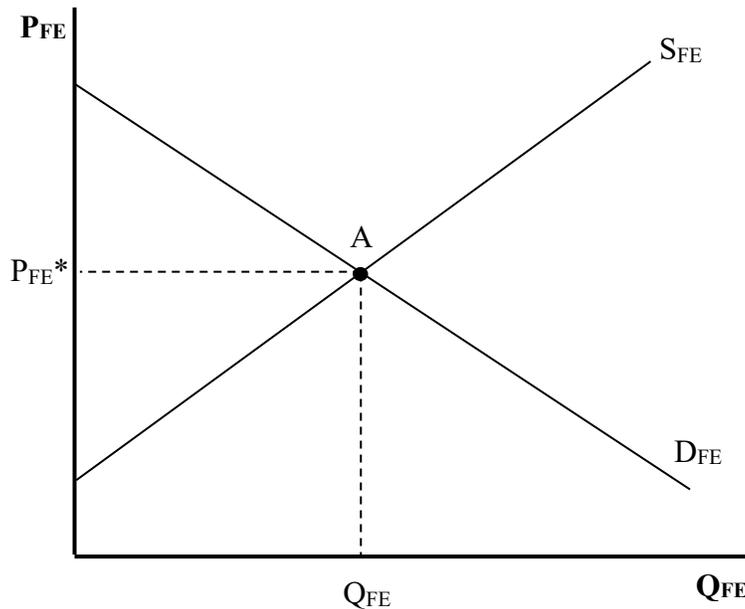
3. If this market is operating at pt A, then select every statement below that is currently correct:

- a. this market is experiencing capital inflow
- b. this market is experiencing capital outflow
- c. this market is experiencing no capital inflow
- d. this market is experiencing no capital outflow
- e. both answers c and d are correct
- f. both answers a and b are correct

4. If there is an increase in U.S. government borrowing, then select every statement below that would be a correct statement about the result of that borrowing:

- a. there will be a shift to the right in DS
- b. there will be a shift to the right in D_{LF}
- c. there will be a shift to the right in S_{LF}
- d. the interest rate will increase
- e. the interest rate will decrease
- f. answers a, c and e are all correct
- g. both answers b and d are correct
- h. both answers c and d are correct
- i. both answers b and e are correct

Use the graph below to answer questions #5-6. This graph depicts the U.S. market for foreign exchange, which in this situation, we'll assume is yen. Note this parallels what we did in class, and that our assumptions here will match those from class. The demand for foreign exchange (D_{FE}) and supply of foreign exchange (S_{FE}) determine the price of foreign exchange (P_{FE}) and reflects the quantity of yen (foreign exchange) exchanged within this U.S. market.



In the questions below, assume that $P_{FE} = \frac{\$}{¥}$ (i.e. dollars to yen).

5. If the U.S. economy experiences an increase in imports from Japan, then select every statement below that would be a correct statement about the result of this increase in imports:

- a. an increase in imports into the US from Japan leads to an increase in D_{FE}
- b. an increase in imports into the US from Japan leads to an increase in S_{FE}
- c. an increase in imports into the US from Japan leads to the dollar appreciating relative to the yen
- d. an increase in imports into the US from Japan leads to the dollar depreciating relative to the yen
- e. both answers a and d are correct
- f. both answers b and c are correct

6. If the U.S. economy experiences an increase in capital inflow from Japan, then select every statement below that would be a correct statement about the result of this greater capital inflow:

- a. an increase in capital inflow into the US from Japan leads to an increase in D_{FE}
- b. an increase in capital inflow into the US from Japan leads to an increase in S_{FE}
- c. an increase in capital inflow into the US from Japan leads to U.S. goods and services being more expensive for Japanese citizens
- d. an increase in capital inflow into the US from Japan leads to U.S. goods and services being less expensive for Japanese citizens
- e. both answers a and d are correct
- f. both answers b and c are correct

7. The Aggregate Demand-Aggregate Supply model (AD-AS model) from class is an example of a model reflecting the goods and services market. Which of the following is a correct statement about this model.

- a. in the AD-AS model, an increase in AD leads to an increase in the price level
- b. in the AD-AS model, an increase in the current price level leads to an increase in AD
- c. in the AD-AS model, an increase in AS leads to an increase in the price level
- d. in the AD-AS model, an increase in the current price level leads to an increase in AS
- e. the AD-AS model is designed to explain or predict changes in interest rates and overall expenditure
- f. the AD-AS model is designed to explain or predict changes in the unemployment rate and price level

Question #8 is based on the relationship between the market for loanable funds and the market for foreign exchange. Note that $P_{FE} = \frac{\$}{\text{¥}}$ (i.e. dollars to yen).

8. Assume that there is an increase in U.S. government borrowing that affects the U.S. market for loanable funds, but in turn affects the U.S. market for foreign exchange with Japan.

Select the statement below which represents a correct statement about how this increase in borrowing will ultimately affect the U.S. market for foreign exchange with Japan.

- a. the dollar will appreciate relative to the yen
- b. the dollar will depreciate relative to the yen
- c. U.S. goods and services will be more expensive for Japanese citizens
- d. U.S. goods and services will be less expensive for Japanese citizens
- e. both answers a and c are correct
- f. both answers b and d are correct
- g. both answers a and d are correct
- h. both answers b and c are correct

9. Assume that the current exchange rate between the US and Japan is $P_{FE} = \frac{\$2}{1\text{¥}}$. If the yen appreciates, the exchange rate will change. Which of the answers below are at least possible as the new exchange rate?

- a. $P_{FE} = \frac{\$3}{1\text{¥}}$
- b. $P_{FE} = \frac{\$1.5}{1\text{¥}}$
- c. $P_{FE} = \frac{\$3}{2\text{¥}}$
- d. both b and c are correct

Use the equations below to answer Question #10. These equations describe the expenditures within a specific macroeconomy and we'll assume the equations conform to the assumptions associated with the fixed price level Aggregate Expenditure model. All values for expenditure and income are dollar amounts, but for simplicity, we've dropped the \$ below.

Note: be sure to read the formatting instructions for this question.

$C = 0.9(DI) + 4500$	(C = consumption expenditures, DI = disposable income)
$I = 5000$	(I = investment expenditure)
$G = 5000$	(G = government expenditure)
$X = 3000$	(X = spending on exports)
$M = 2000$	(M = spending on imports)
$DI = Y - T$	(Y = real GDP, T = tax revenues)
$T = 5000$	

10. Equilibrium GDP in this economy is equal to _____

11. To answer Questions #11a and 11b, you must utilize the consumption function equation below, where C = Consumption Expenditure and DI = Disposable Income.

$$C = 0.6(DI) + 1000$$

where $DI = Y - T$ ($Y = \text{real GDP}$ and $T = \text{Taxes}$)

Note: be sure to read the formatting instructions for rounding your answer to the nearest hundredth (i.e. 2 decimal places) on this question.

a. If we assume that $Y = 12,000$ and $T = 2000$, then the value of the average propensity to consume (APC) is _____

b. If we assume that $Y = 12,000$ and $T = 2000$, then the value of the average propensity to save (APS) is _____

12. Consider the table below, where each row illustrates a macroeconomic relationship between consumption, savings and disposable income. Your job in this question will be to fill in the empty boxes. *You'll be using this table to also answer Question #13.*

Assume that within this macroeconomy, the marginal propensity to consume (MPC) is constant at a value of 0.8 (i.e. **MPC = 0.8**). This allows you to predict how changes in consumption and disposable income should relate between the rows.

Note: be sure to read the formatting instructions for this question.

Row	C	S	DI
A			4000
B		-100	4500
C	5000		5000
D			5300
E	5640		

where $C = \text{Consumption}$, $S = \text{Savings}$, $DI = \text{Disposable Income}$

Given the information in the table above and the understanding that $MPC = 0.8$, please answer the following questions below. *Note that you are not being asked to submit answers for the values of Consumption and Savings in row A.*

- What is the amount of Consumption in Row B?
- What is the amount of Savings in Row C?
- What is the amount of Consumption in Row D?
- What is the amount of Savings in Row D?
- What is the amount of Savings in Row E?
- What is the amount of Disposable Income in Row E?

Use the table above to answer Question #13 below.

13. Which of the following statements is correct:

- a. in this economy, we do not observe dissaving in rows A, B, C, D or E
- b. in this economy, we observe dissaving in row A, not in rows B, C, D or E
- c. in this economy, we observe dissaving in rows A and B, not in rows C, D or E
- d. in this economy, we observe dissaving in rows A, B and C, not in rows D or E
- e. in this economy, we observe dissaving in rows A, B, C and D, not in row E
- f. in this economy, we observe dissaving in rows A, B, C, D and E