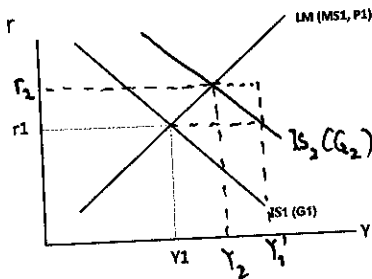


EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

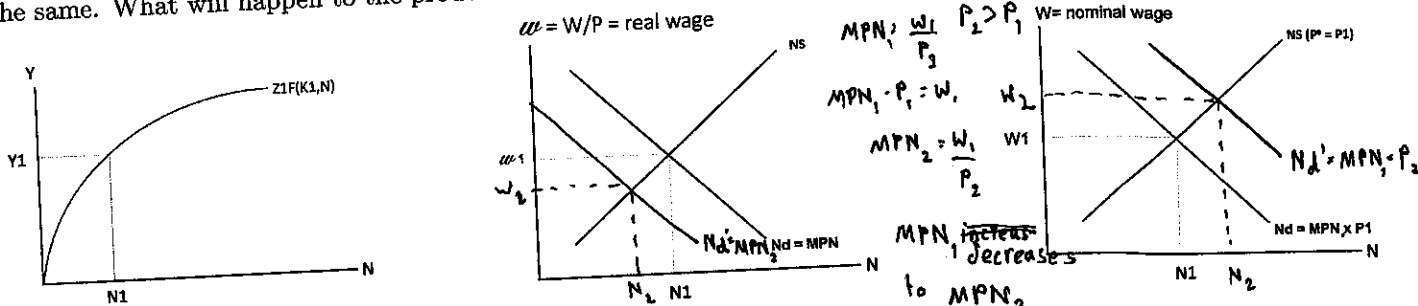


- Multiplier effect is $\frac{1}{1-b}$
- Crowding-out effect is increasing in r

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G, because the multiplier of G is larger.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



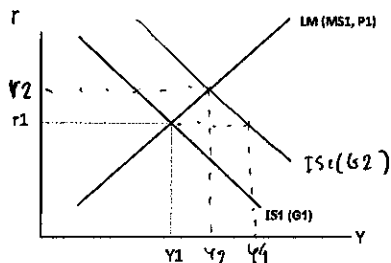
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
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 - Nd shift to the left
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
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 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
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 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

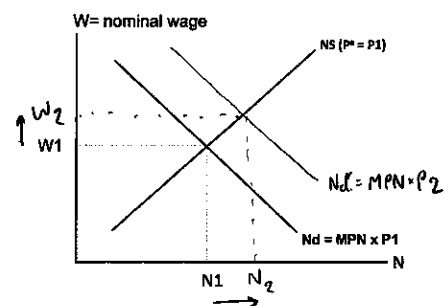
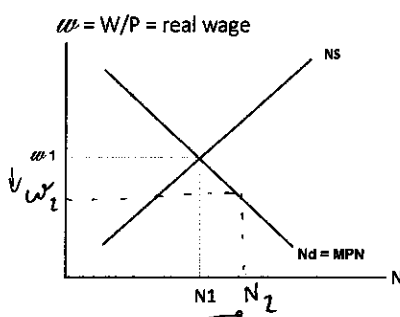
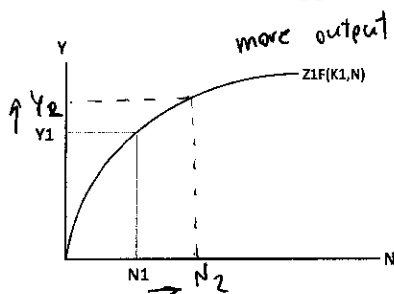


- Multiplier effect is $Y1 \text{ to } Y1'$
- Crowding-out effect is $Y1' \text{ to } Y2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because G has directly effect on DAE. $(\frac{1}{1-MPC})$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **increases** from $P1$ to $P2$. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?

a. N_s shifts to the left b. N_s shifts to the right c. N_s remains the same. d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?

a. N_s shifts to the left b. N_s shifts to the right c. N_d shift to the left d. N_d shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?

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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?

a. $N^* > N_F$ b. $N^* < N_F$ c. $N^* = N_F$ d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?

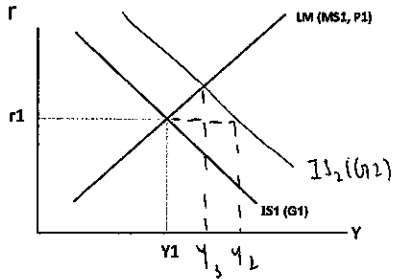
a. $N^* > N_F$ b. $N^* < N_F$ c. $N^* = N_F$ d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?

a. N_s shifts to the left b. N_s shifts to the right c. N_s remains the same d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



- Multiplier effect is $y_1 \rightarrow y_2$
- Crowding-out effect is $y_1 \rightarrow y_3$

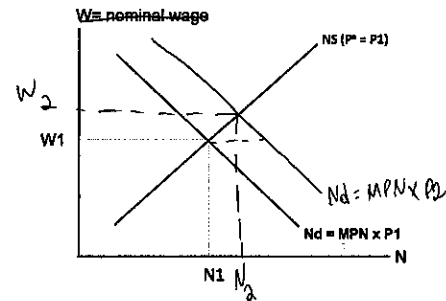
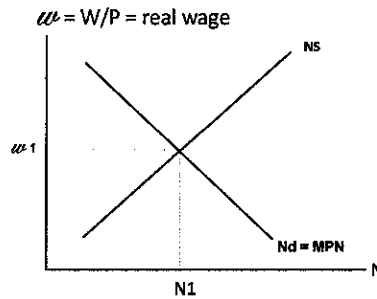
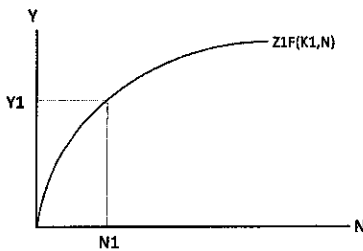
$AE = C + I + G + X - M$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift of the IS curve. G have a larger multiplier effect and directly affect the OAE while T affect the income which in turn affect consumption, thus indirectly affect the OAE and the IS.

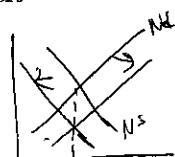
3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.

$P \uparrow$
 $w = P \cdot MPN$



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

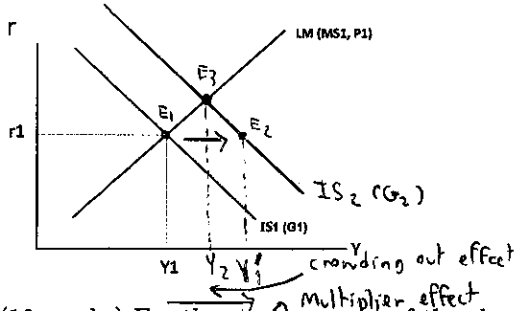
- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price (P^e < P*). Which of the following is correct?
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 - b. N* < N_F
 - c. N* = N_F
 - d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - a. N* > N_F
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 - c. N* = N_F
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given



EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

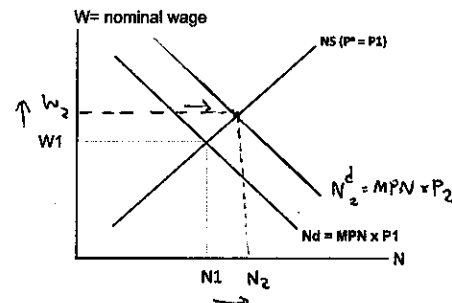
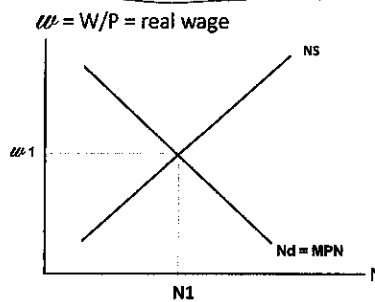
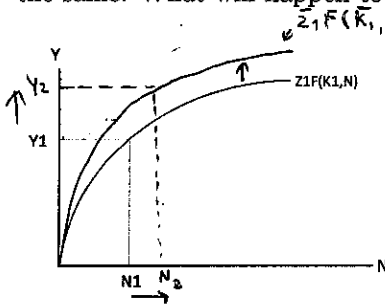
1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect. (5)



- Multiplier effect is $Y_1 \rightarrow Y_1'$
- Crowding-out effect is $Y_2 \leftarrow Y_1'$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?
 Government because the multiplier effect of government bigger than tax multiplier effect.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level (~~increases~~ from P_1 to P_2). Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



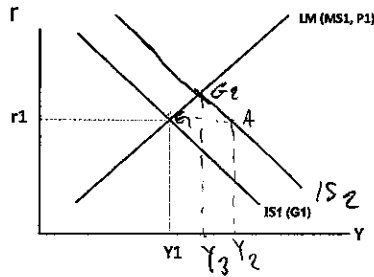
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
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 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
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 - c. Nd shift to the left
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 - c. $N^* = N_F$
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 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

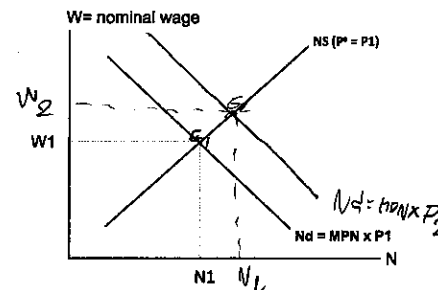
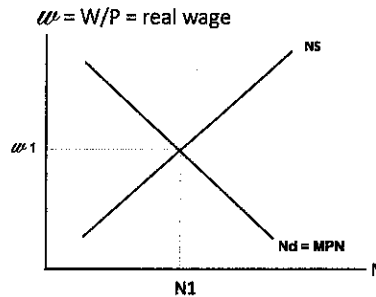
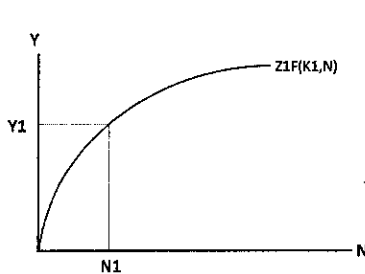


- Multiplier effect is $Y_1 \rightarrow Y_2$
- Crowding-out effect is $Y_2 \rightarrow Y_3$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because the multiplier of G is $\frac{1}{1-b}$ while multiplier of T is $\frac{-b}{1-b}$ and G is lesser than 1

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **increases** from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



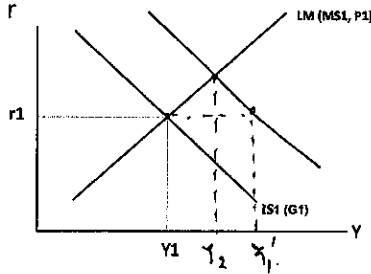
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

1. (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
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2. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
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4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 a. $N^* > N_F$ b. $N^* < N_F$ c. $N^* = N_F$ d. No correct answer given
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6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 a. N_s shifts to the left b. N_s shifts to the right c. N_s remains the same d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided. $G \uparrow$

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

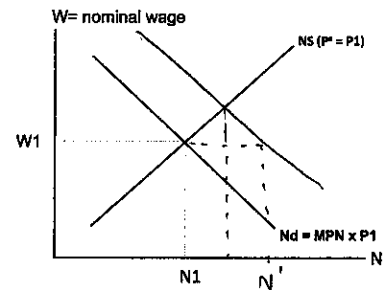
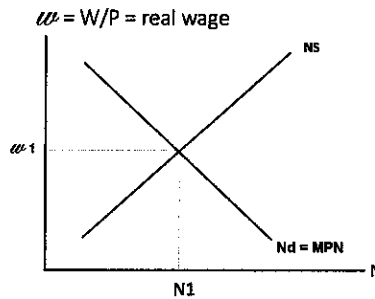
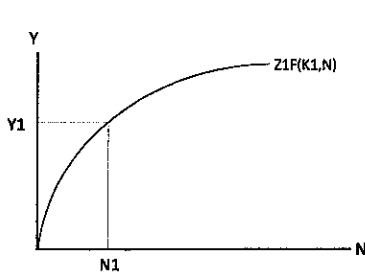


- Multiplier effect is $Y_1 \rightarrow Y_1'$
- Crowding-out effect is $Y_1' \rightarrow Y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G produces bigger shift because of the multiplier is $\frac{1}{1-b}$ but T is $\frac{-b}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



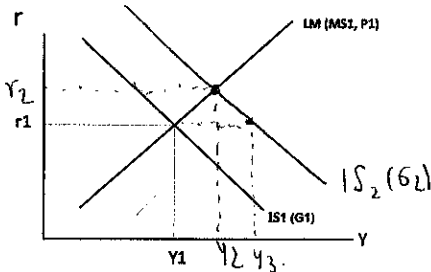
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
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 - No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the (size) of the multiplier effect and the crowding out effect.



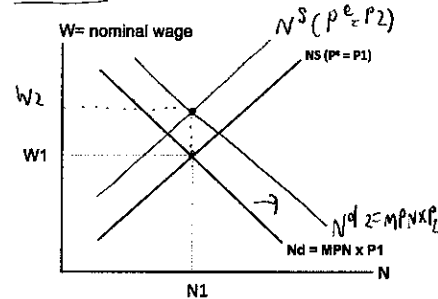
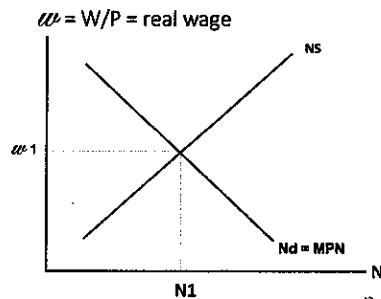
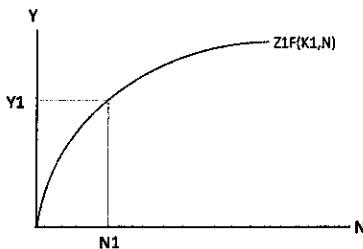
IS shift right
DAEP Y2

- Multiplier effect is y_1 to y_3
- Crowding-out effect is y_1 to y_2

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

6 because multiplier effect of G is greater than multiplier effect of T.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

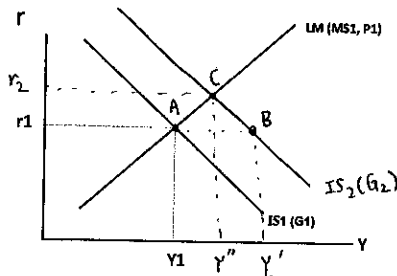
1. (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
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6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 a. N_s shifts to the left b. N_s shifts to the right c. N_s remains the same d. No correct answer given



EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

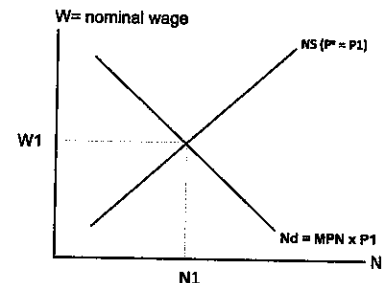
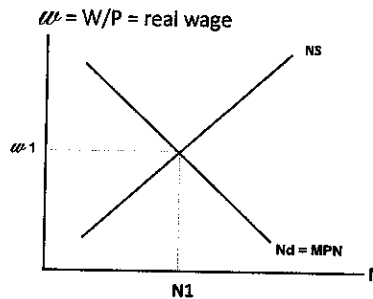
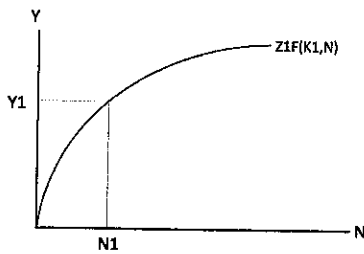


- Multiplier effect is A to B
- Crowding-out effect is B to C

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because government multiplier is $\frac{1}{1-b}$ which is bigger than tax multiplier ($\frac{b}{1-b}$)

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



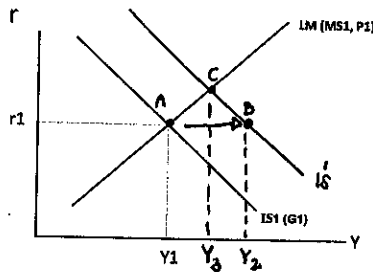
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

1. (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
2. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
3. (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price (P^e < P*). Which of the following is correct?
 - a. N* > N_F
 - b. N* < N_F
 - c. N* = N_F
 - d. No correct answer given
5. (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - a. N* > N_F
 - b. N* < N_F
 - c. N* = N_F
 - d. No correct answer given
6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

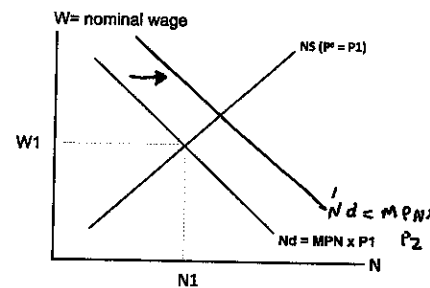
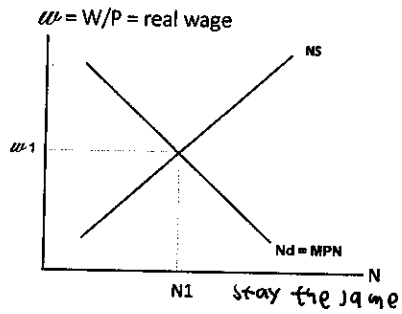
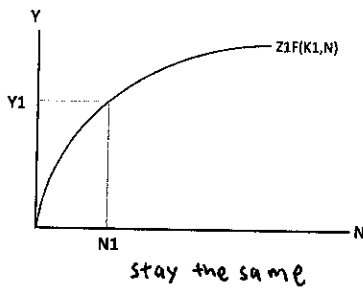


- Multiplier effect is A to B
- Crowding-out effect is B to C

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G will produce a bigger shift because Government multiplier is larger than tax multiplier.

3. (10 marks) Given that technology and aggregate capital remain the same (\bar{Z} and \bar{K} remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



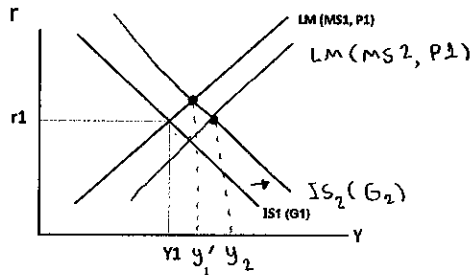
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left *firm want to hire less labor.*
 - d. Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
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 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



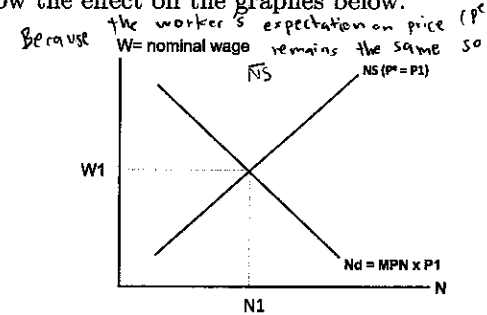
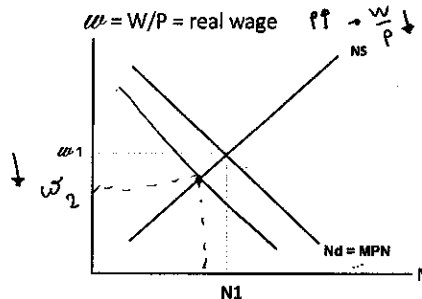
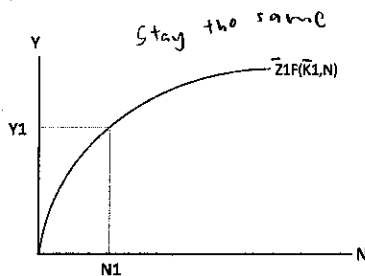
$G \uparrow \rightarrow \Delta DAE \uparrow \rightarrow IS \uparrow \rightarrow Y \uparrow \rightarrow LM \uparrow$

- Multiplier effect is $\dots y_1 \rightarrow y_2 \dots$
- Crowding-out effect is $\dots y_1' \rightarrow y_2 \dots$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift on IS curve because of the multiplier of G is larger ($\frac{-b}{1-b}$)
 $p \uparrow \rightarrow$ workers need more wage

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

$P^e \uparrow \rightarrow$ labor work less

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - (b.)** Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - (c.)** Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - (c.)** Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - (a.)** $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - (c.)** $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - (a.)** Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

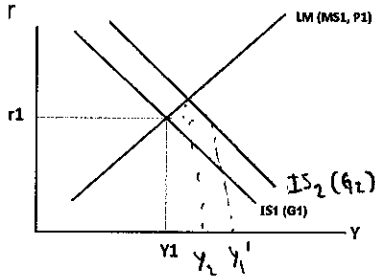
~~$P \downarrow$ worker~~

$P \downarrow, P^e \downarrow, N^S$

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

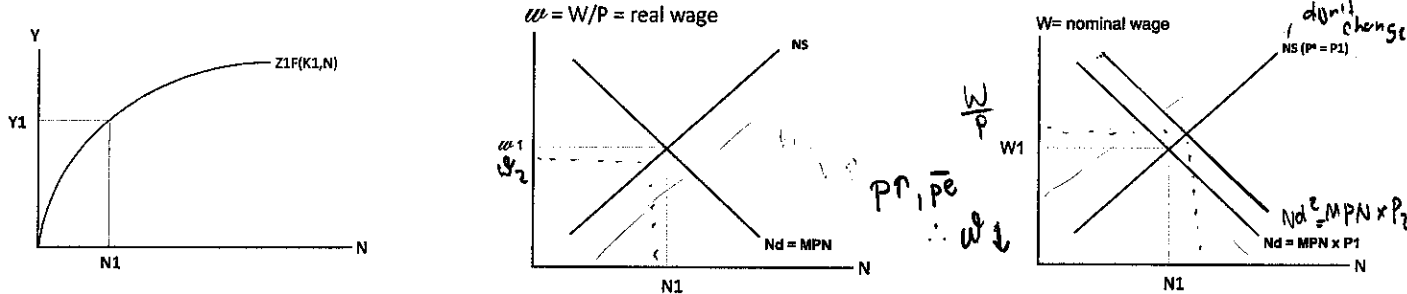


- Multiplier effect is $Y_1 \rightarrow Y_1'$ ($\frac{1}{1-b}$)
- Crowding-out effect is $r_1 \rightarrow r_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift since its multiplier is larger than T . $G = \frac{1}{1-b}$, $T = \frac{-b}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - (b)** Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - (d)** Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - (d)** Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* > N_F$
 - (b)** $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - (c)** $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - (a)** Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

19

$P^e < P^*$

P^e

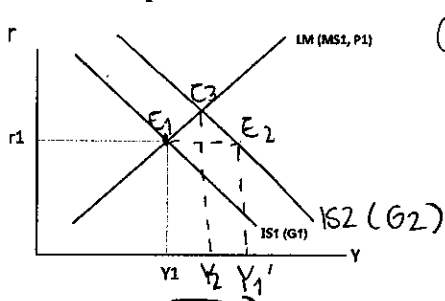
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L

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

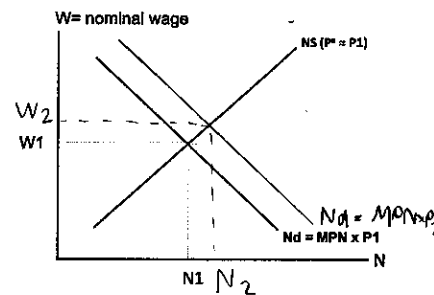
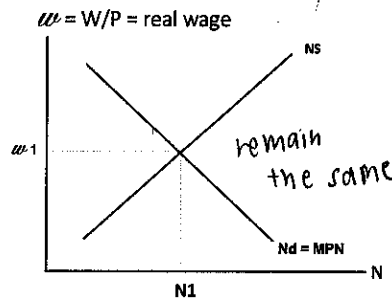
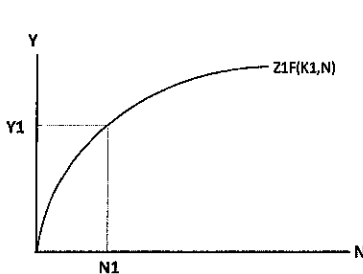


- Multiplier effect is \uparrow (from Y_1 to Y_1')
- Crowding-out effect is \downarrow (from Y_1' to Y_2)

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because change in G is $\frac{1}{1-b}$ but T is $\frac{-b}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



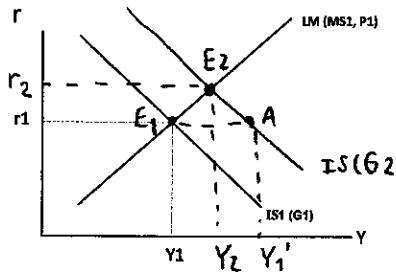
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - ~~Ns shifts to the left~~
 - ~~Ns shifts to the right~~
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



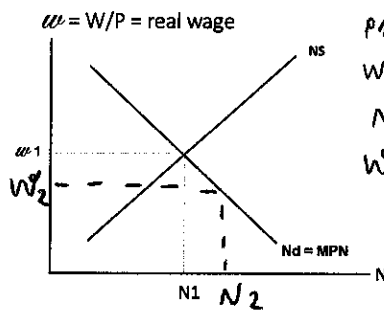
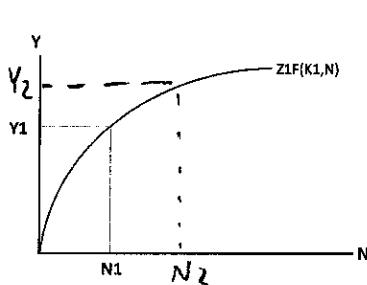
6↑

- Multiplier effect is Y_1, Y_1'
- Crowding-out effect is Y_1', Y_2

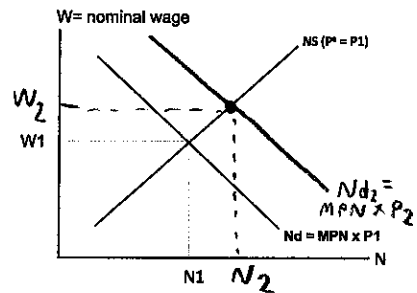
2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

...G because G is the main factor that effect DAE. $DAE = C + I + G + (X - M)$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



$P \uparrow, P^e$
 $w \uparrow, N \uparrow$
 $N_2 > N_1$
 $w = \frac{W}{P} \uparrow$
 $w \downarrow$



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?

(a) Ns shifts to the left b. Ns shifts to the right c. Ns remains the same. d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?

a. Ns shifts to the left b. Ns shifts to the right c. Nd shift to the left (d) Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?

a. Ns shifts to the left b. Ns shifts to the right c. Nd shift to the left (d) Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?

(a) $N^* > N_F$ b. $N^* < N_F$ c. $N^* = N_F$ d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?

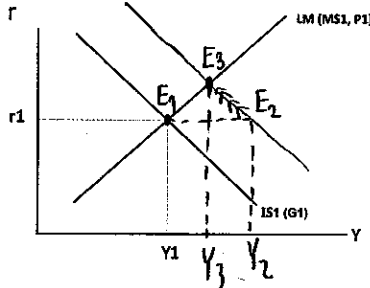
a. $N^* > N_F$ (b) $N^* < N_F$ (c) $N^* = N_F$ d. No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?

a. Ns shifts to the left b. Ns shifts to the right c. Ns remains the same (d) No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

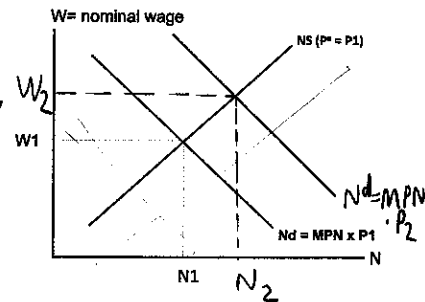
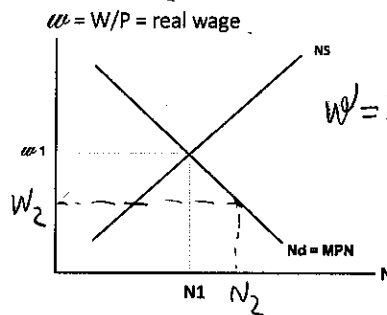
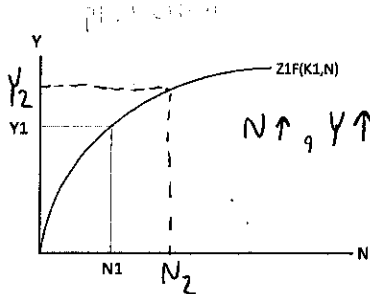


- Multiplier effect is ... Y_1 to ... Y_2
- Crowding-out effect is ... Y_2 to ... Y_3

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

..... G because Government spending is the main factor in DAE but Tax will depend on C

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



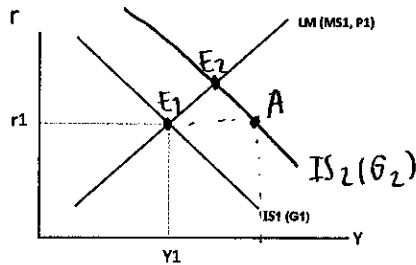
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

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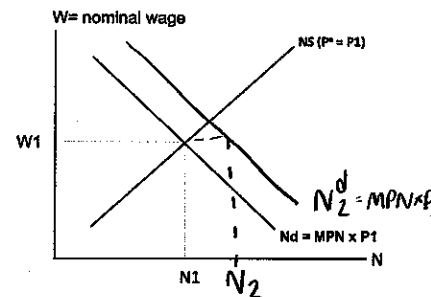
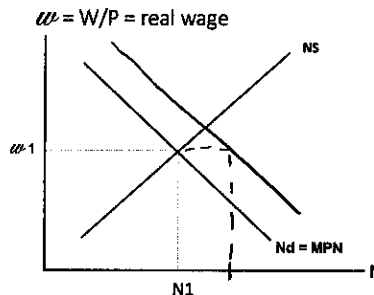
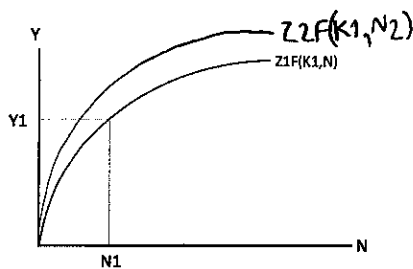


- Multiplier effect is $\frac{1}{1-b}$ $E_1 \rightarrow A$
- Crowding-out effect is $A \rightarrow E_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because G has a direct impact to DAE but T is in C which has the multiplier.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **increases** from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



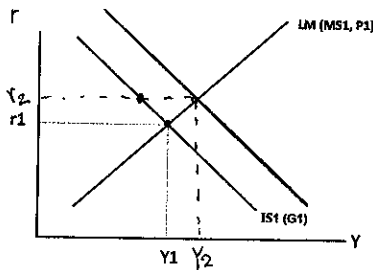
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of “nominal wage”. Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - (b)** Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - (a)** Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - (c)** Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price (P^e < P*). Which of the following is correct?
 - N* > N_F
 - N* < N_F
 - (c)** N* = N_F
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - N* > N_F
 - (b)** N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - (c)** Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

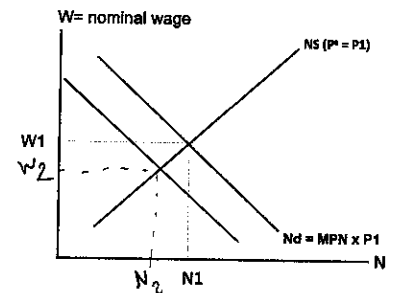
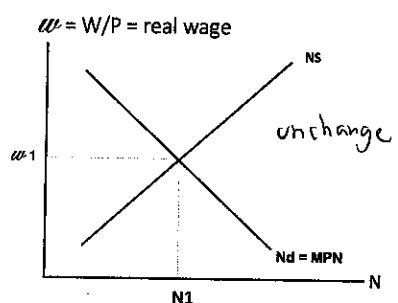
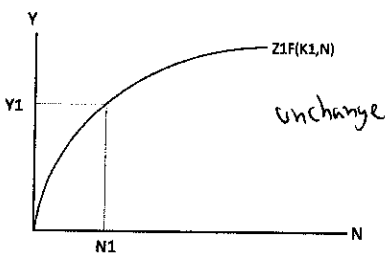


- Multiplier effect is $\frac{Y_2 - Y_1}{Y_1 - Y_2}$
- Crowding-out effect is $\frac{r_2 - r_1}{r_1}$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because the increasing in G will affect Y more than T thus T is part of (C-T)

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **increases** from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



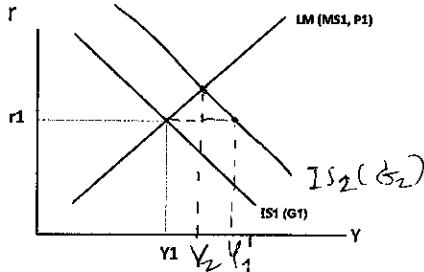
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

1. (10 marks) Suppose workers' expected price increases (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
2. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
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 - b. Ns shifts to the right
 - c. Nd shift to the left
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4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price (P^e < P*). Which of the following is correct?
 - a. N* > N_F
 - b. N* < N_F
 - c. N* = N_F
 - d. No correct answer given
5. (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - a. N* > N_F
 - b. N* < N_F
 - c. N* = N_F
 - d. No correct answer given
6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

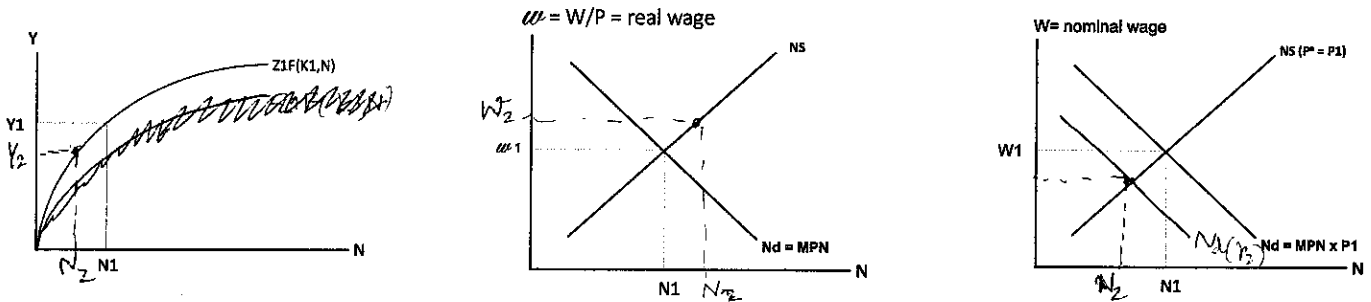


- Multiplier effect is $\dots Y_1' \dots$
- Crowding-out effect is $\dots Y_2 \dots$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce bigger shift than T

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



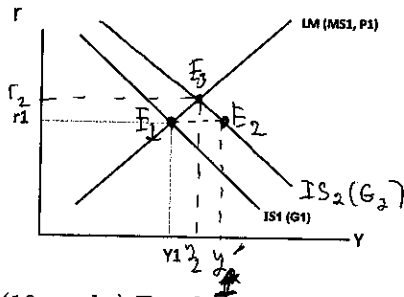
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

1. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_d shift to the left
 - d. N_d shifts to the right
2. (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_s remains the same.
 - d. No correct answer given
3. (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
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4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
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5. (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
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 - c. $N^* = N_F$
 - d. No correct answer given
6. (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
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 - b. N_s shifts to the right
 - c. N_s remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

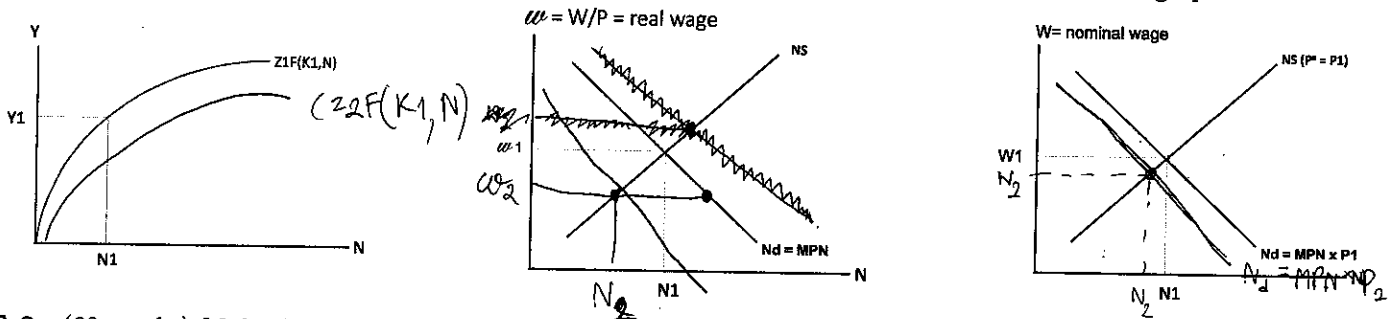


- Multiplier effect is \dots at (y_2, r_1) or E_2
- Crowding-out effect is \dots at (y_2, r_2) or E_3

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce bigger shift in IS curve because multiplier effect of G is bigger than T .

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



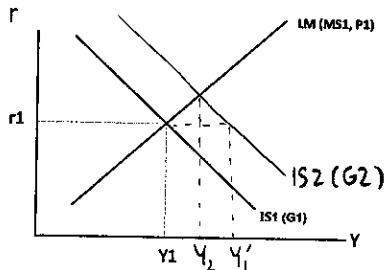
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

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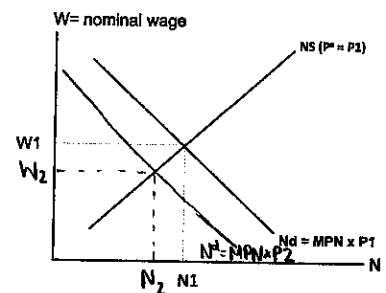
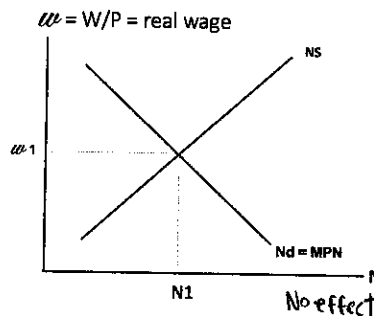
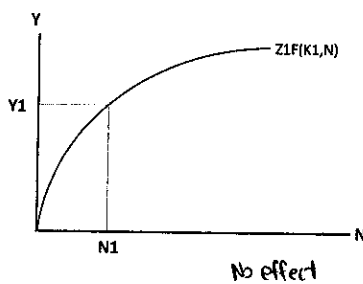


- Multiplier effect is Y_1, Y_1'
- Crowding-out effect is Y_1', Y_2

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

..... G because it has a larger effect, G multiplier = $\frac{1}{1-b}$, Tax multiplier = $\frac{b}{1-b}$ which $b < 1$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



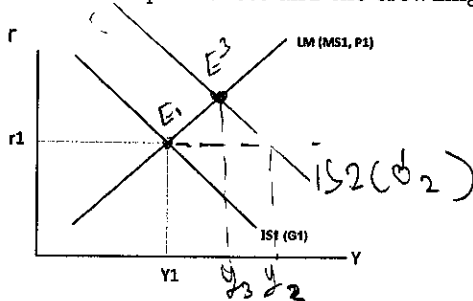
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

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 - Nd shift to the left
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- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

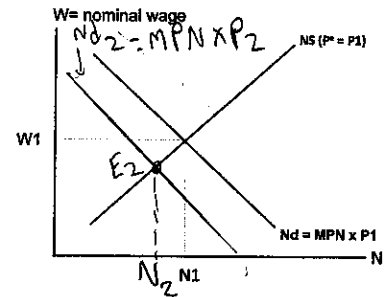
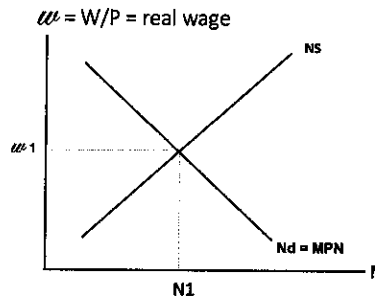
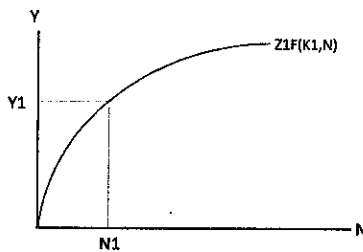
PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



- Multiplier effect is $Y_1 \rightarrow Y_2$
- Crowding-out effect is $Y_2 \rightarrow Y_3$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?
 G because due to the multiplier of δ is larger than multiplier of $T = \frac{1}{1-b}$ larger than $\frac{1}{1-b}$ then
3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

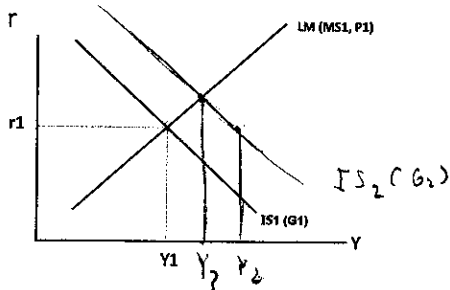
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - (c.) Nd shift to the left**
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - (b.) Ns shifts to the right**
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

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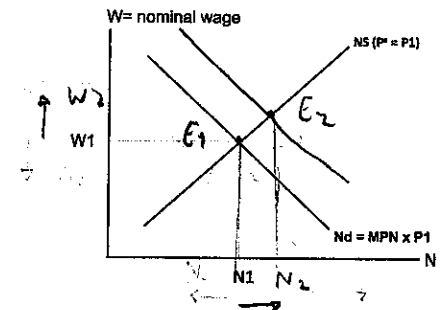
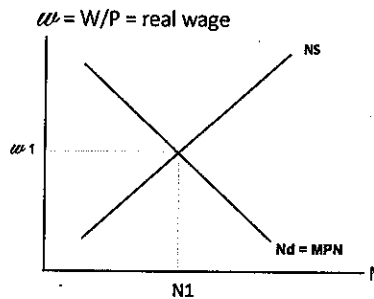
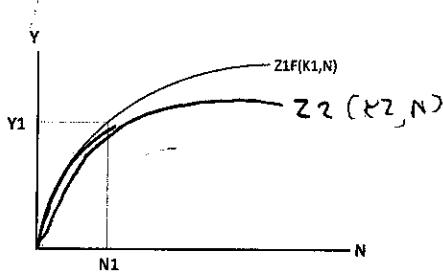


- Multiplier effect is $Y_1 Y_2$
- Crowding-out effect is $Y_2 Y_3$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because G has bigger multiplier than T

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



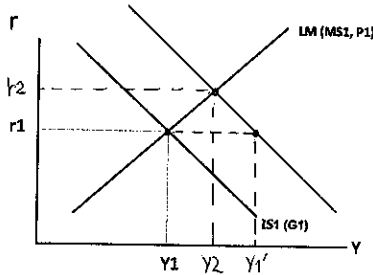
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
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 - Ns remains the same.
 - (d)** No correct answer given
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

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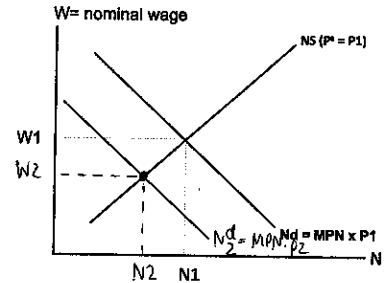
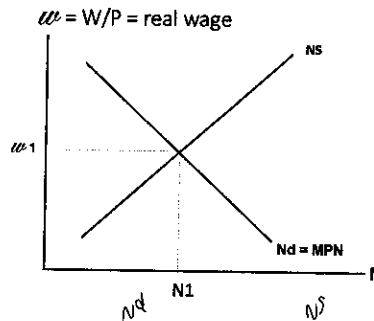
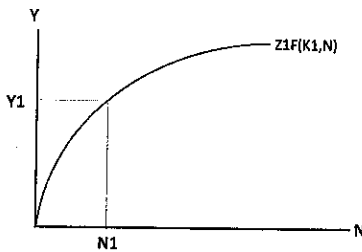


- Multiplier effect is $\dots Y1, Y1' \dots$
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2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

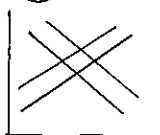
$\dots G \dots$ would produce the bigger shift as it directly affect DAE and IS. G multiplier is $\frac{1}{1-b}$ T multiplier is $\frac{-b}{1-b}$
we can see from their multiplier,

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



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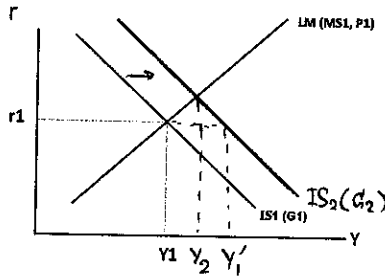
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

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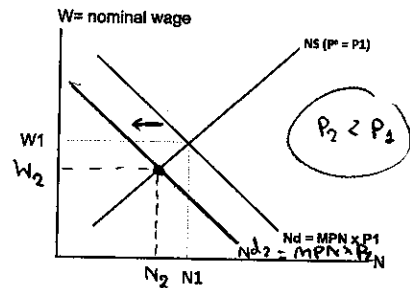
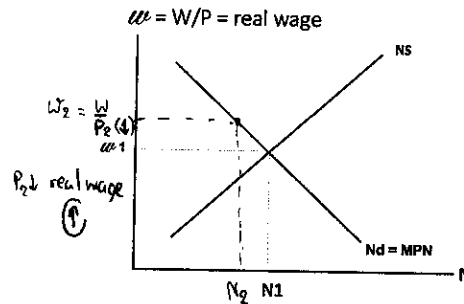
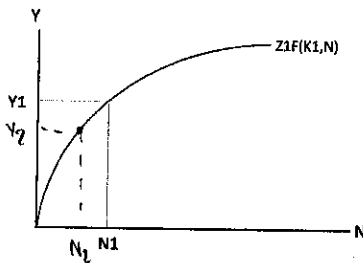
$G_2 > G_1$

- Multiplier effect is Y_1 to Y_1'
- Crowding-out effect is Y_1' to Y_2

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would have a bigger shift because it has bigger multiplier ($\frac{1}{1-b} > \frac{-b}{1-b}$ where $0 < b < 1$)

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

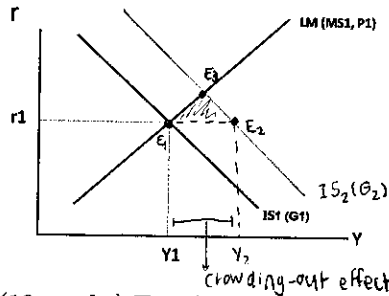
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_d shift to the left
 - d. N_d shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_s remains the same.
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_d shift to the left
 - d. N_d shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - a. N_s shifts to the left
 - b. N_s shifts to the right
 - c. N_s remains the same
 - d. No correct answer given



EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



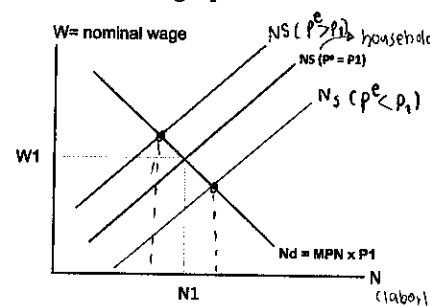
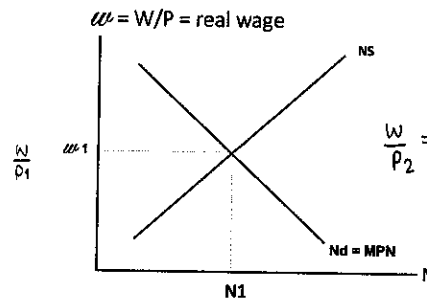
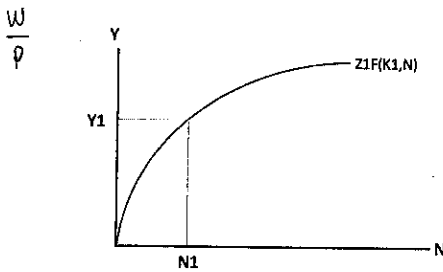
IS : $G \uparrow \rightarrow Y \uparrow \rightarrow r \uparrow \Rightarrow (E_2)$
 LM : $r \uparrow \rightarrow I \downarrow \rightarrow Y \downarrow$
 E_3

- Multiplier effect is $\frac{1}{1-b}$
- Crowding-out effect is $Y_2 - Y_1$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G is bigger than T because multiplier of G is $\frac{1}{1-b}$ but multiplier of T is $\frac{-b}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



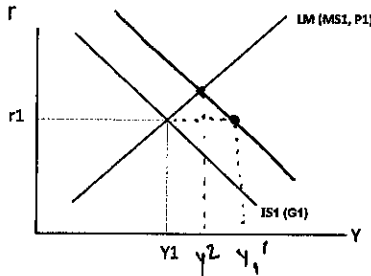
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

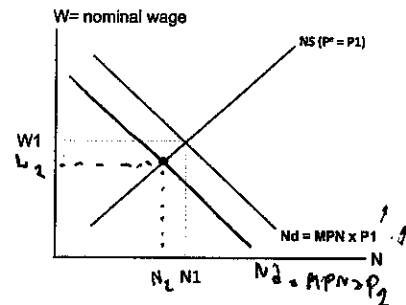
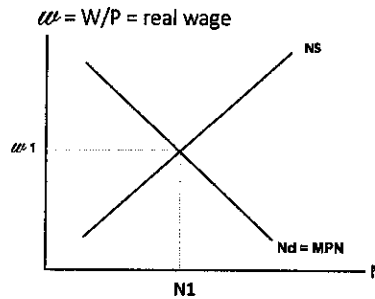
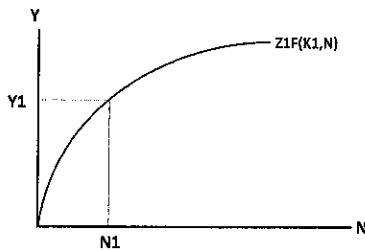


- Multiplier effect is $MPTs, Y_1 \rightarrow Y_1'$
- Crowding-out effect is $r_1 \rightarrow r_2, Y_1' \rightarrow Y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift since its multiplier is bigger. $\frac{1}{1-b} > \frac{1}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



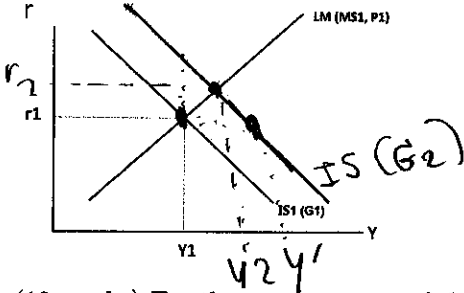
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

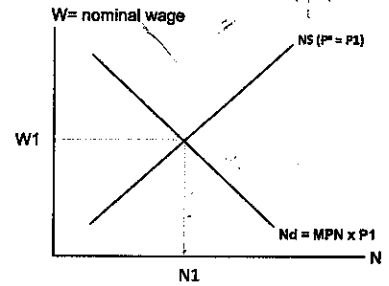
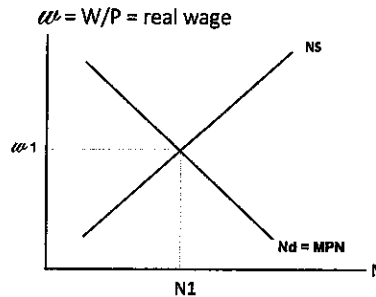
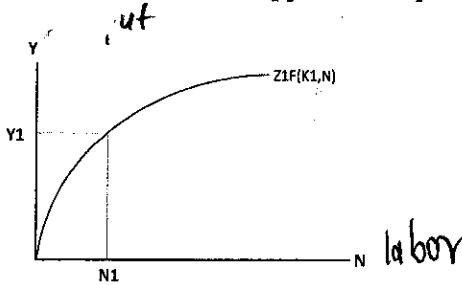


- Multiplier effect is $y_1 y_2'$
- Crowding-out effect is $y_2' y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because G has more power in the market so, IS shift to the right

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **decreases** from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

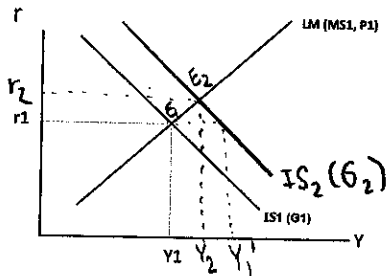
X

pe increase

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

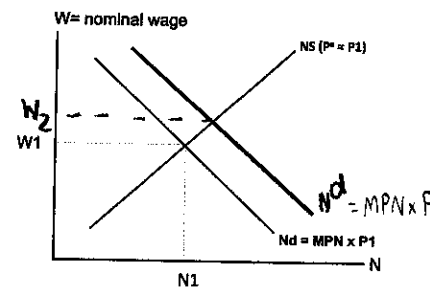
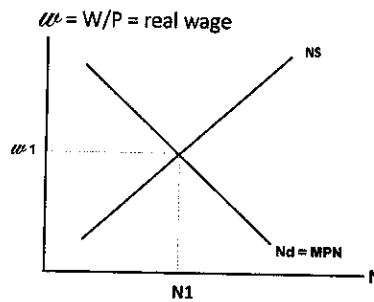
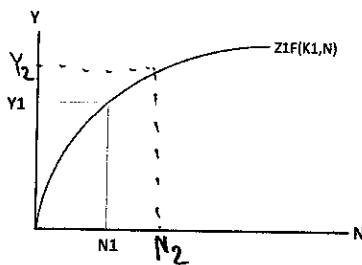


- Multiplier effect is Y_1, Y_1'
- Crowding-out effect is Y_1', Y_2

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because Government multiplier larger than Tax Multiplier and $G = G_a$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



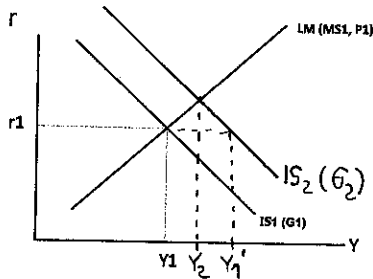
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

1. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
2. (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
3. (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
5. (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
6. (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

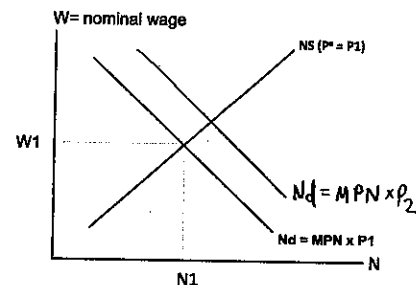
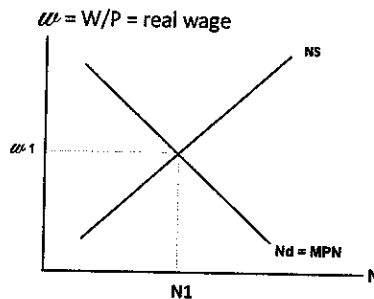
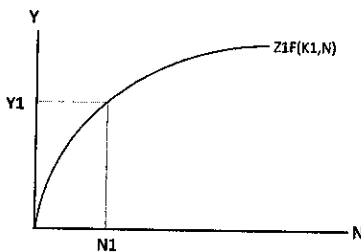


- Multiplier effect is $Y_1 \rightarrow Y_2$
- Crowding-out effect is $Y_2 \rightarrow Y_1'$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G produce a bigger because multiplier of G ($\frac{1}{1-b}$) is higher than multiplier of T ($\frac{b}{1-b}$)

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



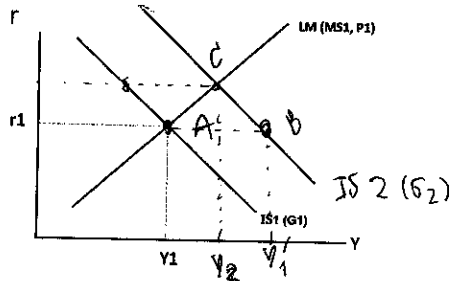
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - Ns shifts to the left
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 - Nd shift to the left
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price (P^e > P*). Which of the following is correct?
 - N* > N_F
 - N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - N* > N_F
 - N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

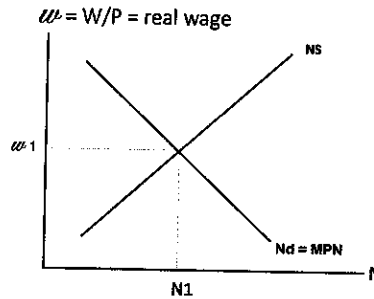
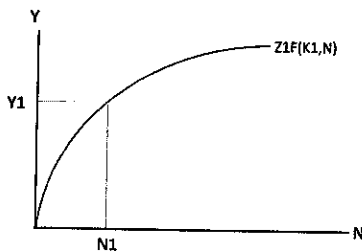
1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



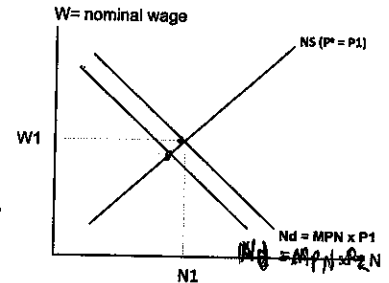
- Multiplier effect is $A \rightarrow B$ $(Y_1 \rightarrow Y_2)$
 - Crowding-out effect is $B \rightarrow C$ $(Y_1' \rightarrow Y_2)$
- $G \uparrow \rightarrow DAE \uparrow \rightarrow Y \uparrow \rightarrow IS \uparrow$ right (IS2)

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?
 G has a bigger change due to its multiplier $G = \frac{1}{1-b}$, $T = \frac{-b}{1-b}$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



$P \downarrow, P^e \uparrow$



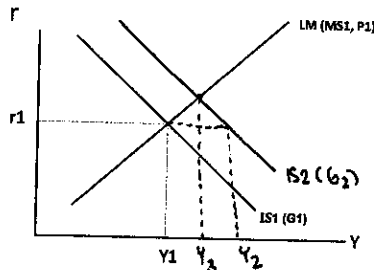
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - (b)** Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - (d)** No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - (d)** Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - $N^* > N_F$
 - (b)** $N^* < N_F$
 - $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* > N_F$
 - $N^* < N_F$
 - (c)** $N^* = N_F$
 - No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - (a)** Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect. $G \uparrow$

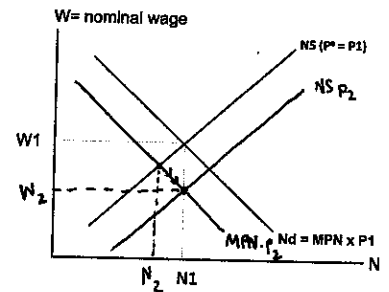
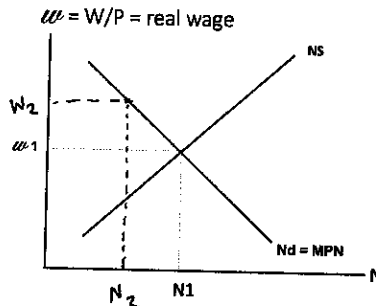
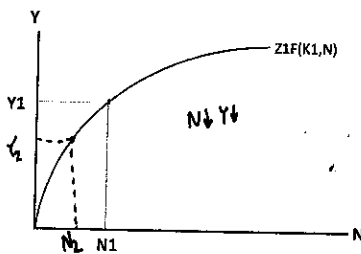


- Multiplier effect is Y_1 to Y_2 ...
- Crowding-out effect is Y_1 to Y_3

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because $Y = C + I + G + (\chi - M)$ G is in the Y equation

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



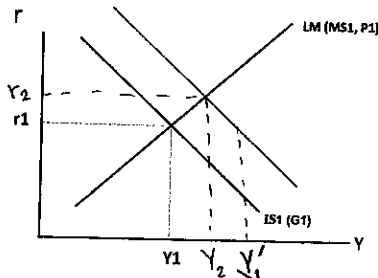
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

1. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
2. (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same.
 - d. No correct answer given
3. (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the left
 - d. Nd shifts to the right
4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price ($P^e > P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
5. (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* > N_F$
 - b. $N^* < N_F$
 - c. $N^* = N_F$
 - d. No correct answer given
6. (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Ns remains the same
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

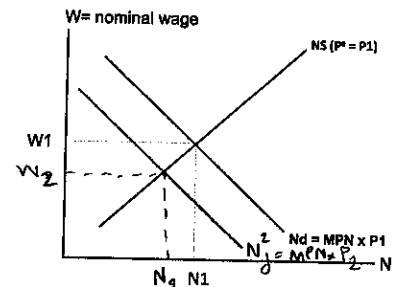
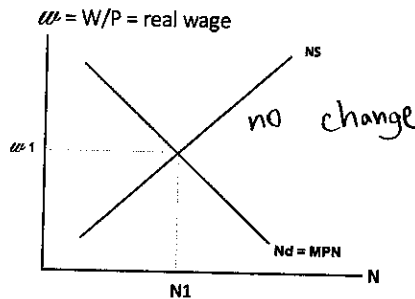
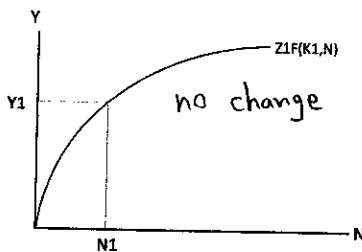


- Multiplier effect is $Y_1 \rightarrow Y_2 = G \text{ multiplier} \times \Delta G$
- Crowding-out effect is $r_1 \rightarrow r_2$ due to $Y \uparrow \rightarrow M^d \uparrow \rightarrow r \uparrow \rightarrow I \downarrow \rightarrow \Delta AE \downarrow \rightarrow Y \uparrow$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because G has a bigger amount of multiplier than T ($\frac{1}{1-b} > \frac{-b}{1-b}$)

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



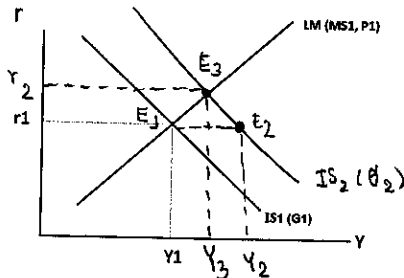
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers' expected price remains the same. Producers notice the decrease in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is greater than the equilibrium price (P^e > P*). Which of the following is correct?
 - N* > N_F
 - N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - N* > N_F
 - N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



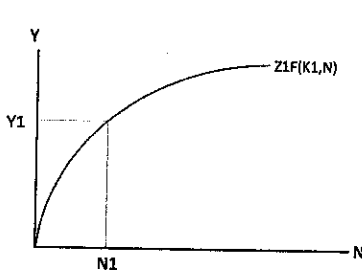
G ↑ DAET ↑ ↑
IS shift right

- Multiplier effect is $E_1 \rightarrow E_2$
- Crowding-out effect is $E_2 \rightarrow E_3$

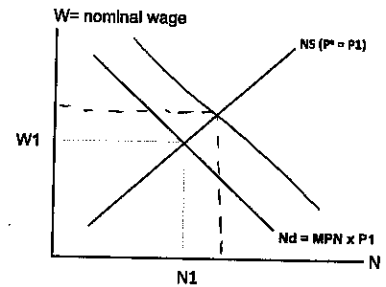
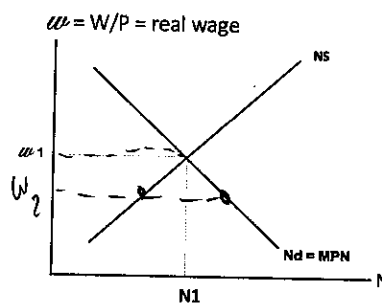
2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift in IS curve because T is negative and have less effect than G because T is in C but G is affect straight

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level decreases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



P₁ → P₂



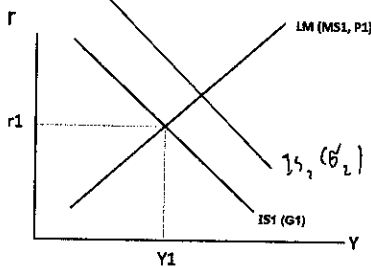
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the left
 - Nd shifts to the right
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns shifts to the right
 - Ns remains the same.
 - No correct answer given
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 - Ns shifts to the right
 - Nd shift to the left
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 - N* > N_F
 - N* < N_F
 - N* = N_F
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly (P^e = P*). Which of the following is correct?
 - N* > N_F
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 - N* = N_F
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- (10 marks) Suppose price level increases. Workers adjust their expected price accordingly (P^e increases). What is the effect on labor supply?
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 - Ns remains the same
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

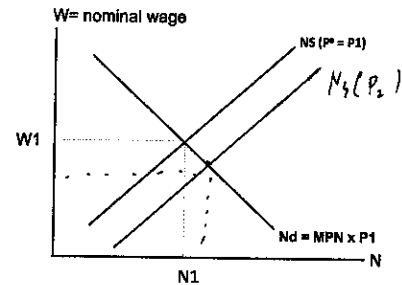
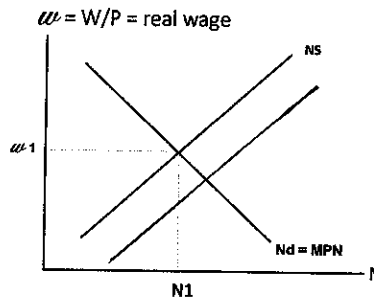
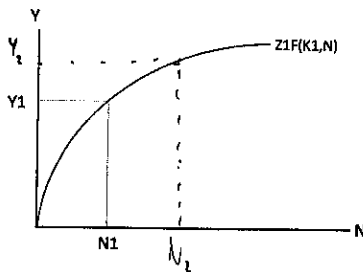


- Multiplier effect is $\dots \frac{1}{1-b} \dots$
- Crowding-out effect is $\dots \frac{b}{1-b} \dots$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift because of the multiplier effect on θ is greater than T.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

1. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?

a. Ns shifts to the right	b. Ns shifts to the left	c. Nd shift to the right	d. Nd shifts to the left
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2. (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?

a. Ns shifts to the right	b. Ns shifts to the left	c. Ns remains the same.	d. No correct answer given
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3. (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?

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4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?

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5. (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?

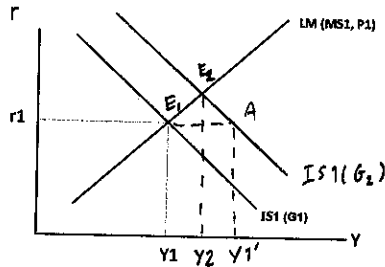
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6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?

a. Ns shifts to the left	b. Ns remains the same	c. Ns shifts to the right	d. No correct answer given
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

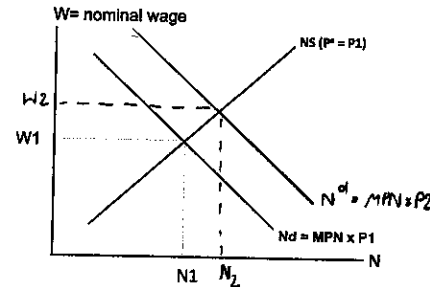
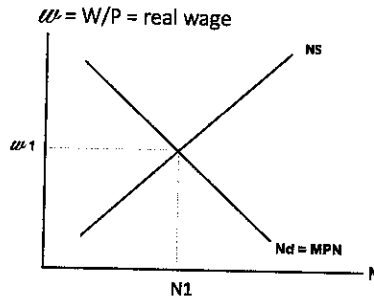
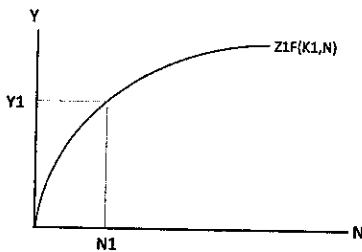


- Multiplier effect is $Y1 \rightarrow Y1'$
- Crowding-out effect is $Y1' \rightarrow Y2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because the size of multiplier of G is bigger than the size of multiplier in T.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from $P1$ to $P2$. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



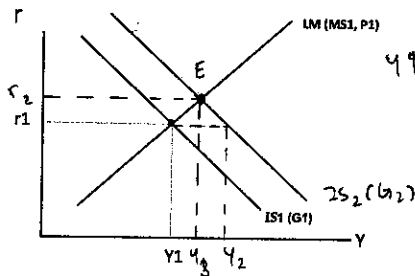
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



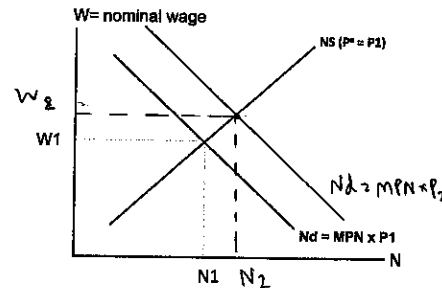
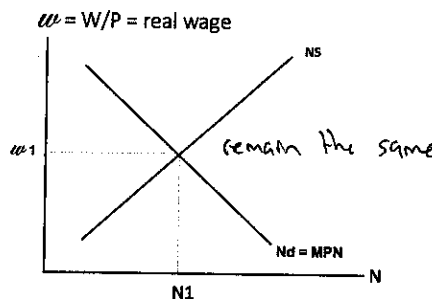
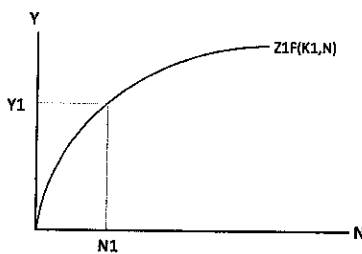
$G \uparrow \rightarrow PAE \uparrow \rightarrow Y \uparrow \rightarrow ZS$ shift right
 $Y \uparrow$ then $md \uparrow \rightarrow r \uparrow$ until $ZS = LM$

- Multiplier effect is $\frac{Y_2 - Y_1}{Y_3 - Y_1}$
- Crowding-out effect is $\frac{Y_3 - Y_2}{Y_3 - Y_1}$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because the multiplier of G is $\frac{1}{1-b}$ and the multiplier of T is $\frac{-b}{1-b}$ which G is bigger than T .

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level **increases** from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



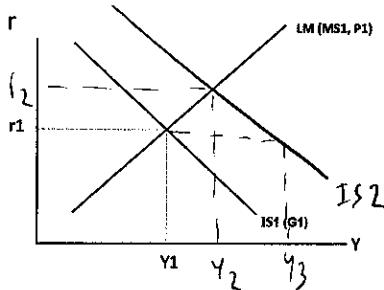
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

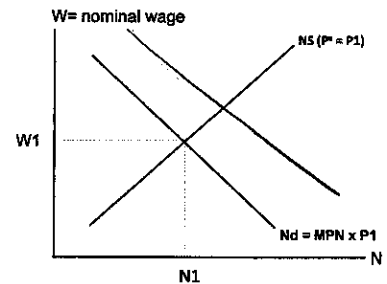
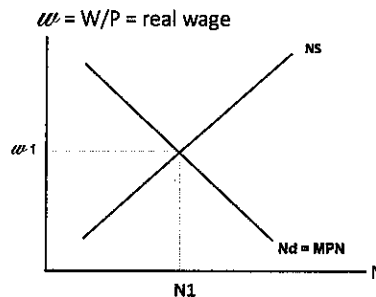
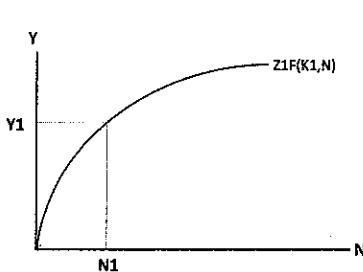


- Multiplier effect is government multiplier $\cdot \Delta G$ or $Y_1 \rightarrow Y_3$
- Crowding-out effect is $Y_3 \rightarrow Y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

T, because G will have the crowding-out effect

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

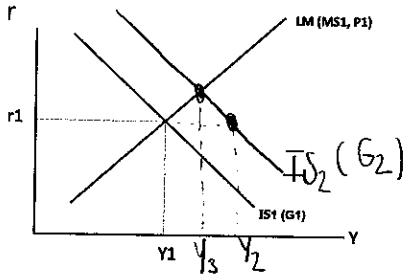
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

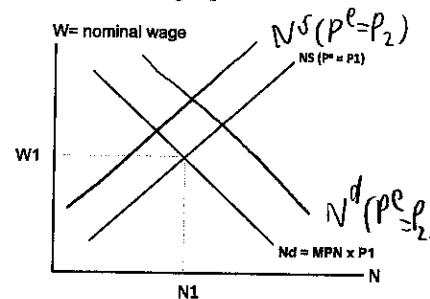
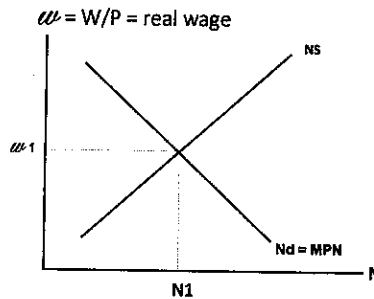
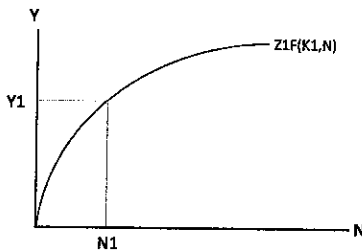
1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect. $G \uparrow, DAE \uparrow, Y \uparrow, IS \uparrow$



- Multiplier effect is big (Y_1 to Y_2)
 - Crowding-out effect is small (Y_2 to Y_3)
- $G \uparrow$, Private sector consume less

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?
G, because G's multiplier is larger than T's multiplier does.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



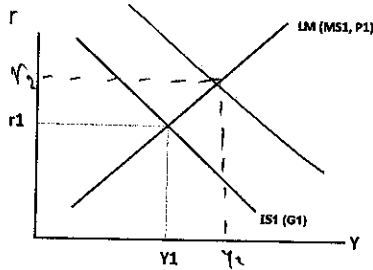
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
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 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* < N_F$
 - $N^* = N_F$
 - $N^* > N_F$
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

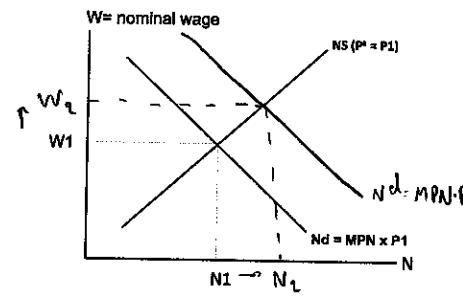
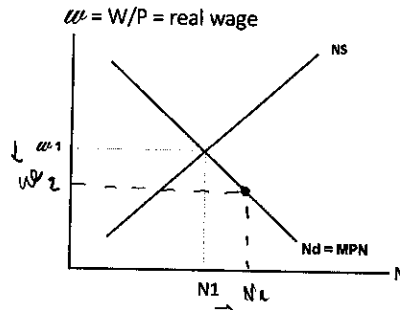
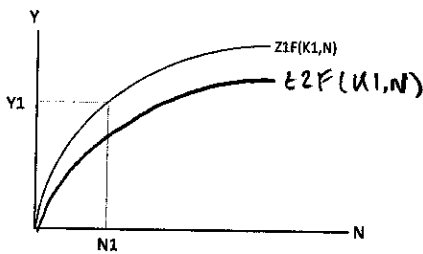


- Multiplier effect is MPC
- Crowding-out effect is ΔY

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

.....It depends on the MPC.....

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from $P1$ to $P2$. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphes below.



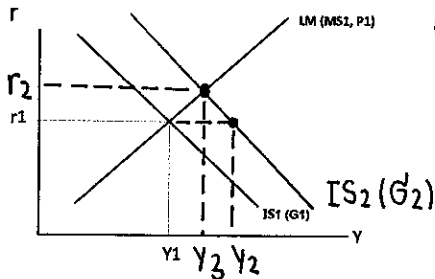
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

1. (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - a. Ns shifts to the right
 - b. Ns shifts to the left
 - c. Nd shift to the right
 - d. Nd shifts to the left
2. (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the right
 - b. Ns shifts to the left
 - c. Ns remains the same.
 - d. No correct answer given
3. (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - a. Ns shifts to the left
 - b. Ns shifts to the right
 - c. Nd shift to the right
 - d. Nd shifts to the left
4. (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - a. $N^* < N_F$
 - b. $N^* = N_F$
 - c. $N^* > N_F$
 - d. No correct answer given
5. (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - a. $N^* < N_F$
 - b. $N^* = N_F$
 - c. $N^* > N_F$
 - d. No correct answer given
6. (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - a. Ns shifts to the left
 - b. Ns remains the same
 - c. Ns shifts to the right
 - d. No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

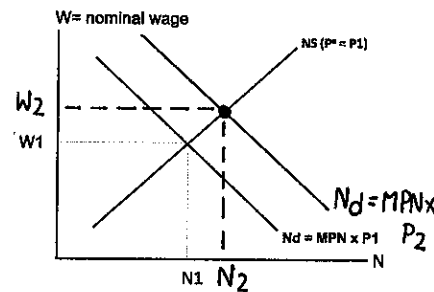
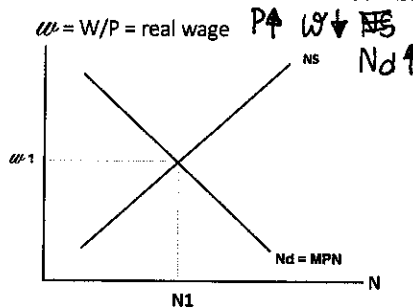
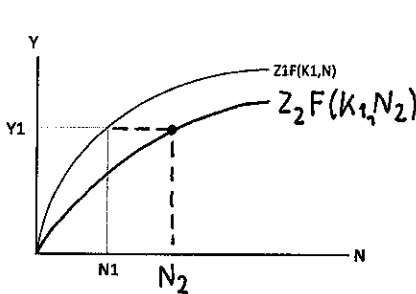


- Multiplier effect is $Y_1 \rightarrow Y_2$.
- Crowding-out effect is $Y_2 \rightarrow Y_3$.

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G would produce a bigger shift of IS curve because G multiplier $(\frac{1}{1-b}) > T$ multiplier $(-\frac{b}{1-b})$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



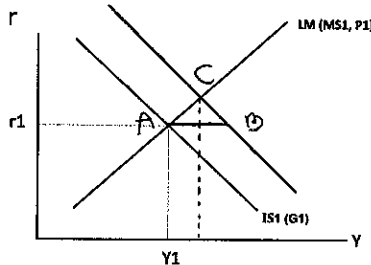
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* < N_F$
 - $N^* = N_F$
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 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* < N_F$
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 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



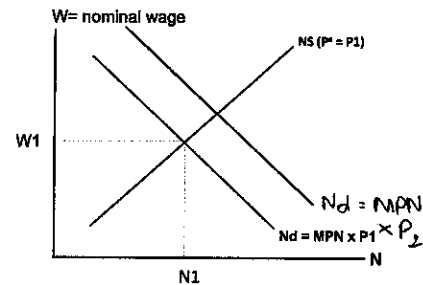
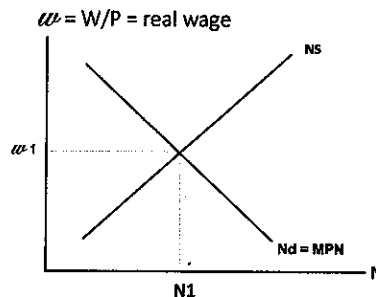
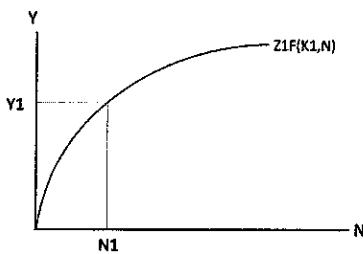
$G \uparrow \rightarrow I \uparrow$

- Multiplier effect is ...A...to...B
- Crowding-out effect is ...B...to...C

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G will produce bigger shift because it is the expenditure of GOV

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

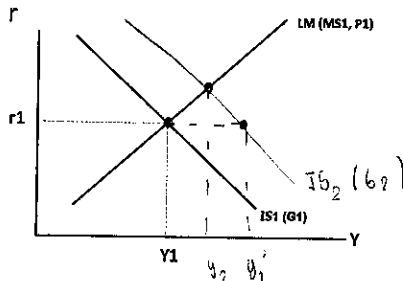
- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the right
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
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- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - No correct answer given

$$w \text{ (real wage) } = \frac{W \text{ (nominal wage) }}{P}$$

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

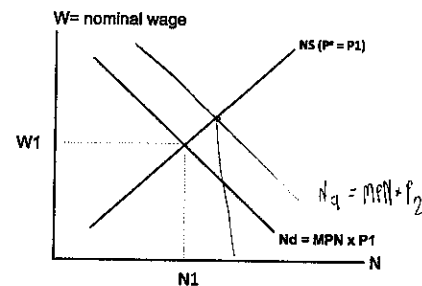
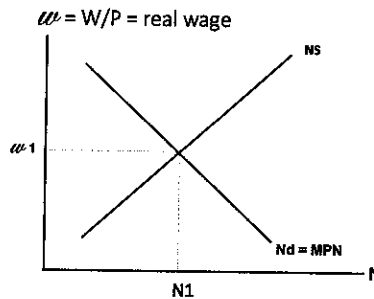
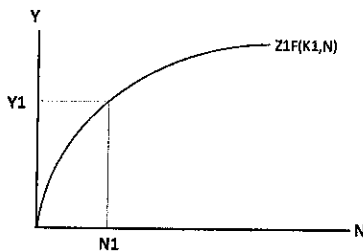
1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect. $G \uparrow$



- Multiplier effect is y_1/y_1'
- Crowding-out effect is $y_1' - y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?
 big bigger because of the multiplier; $G = \frac{1}{1-b}$ while $T = \frac{-b}{1-b}$ and $b < 1$

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



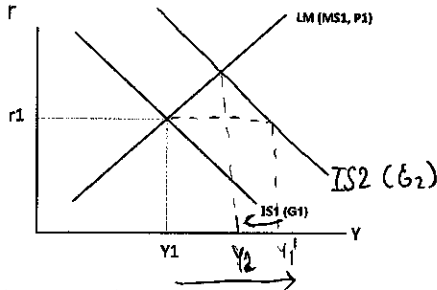
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
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- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

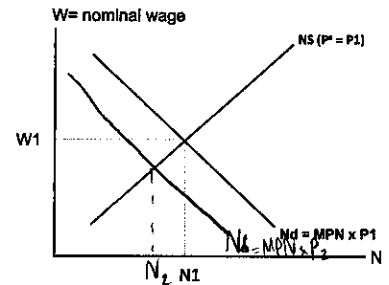
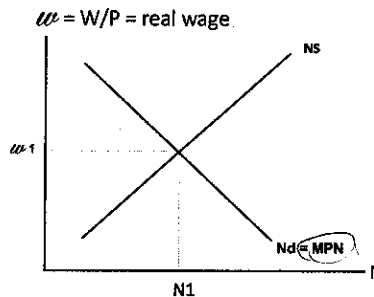
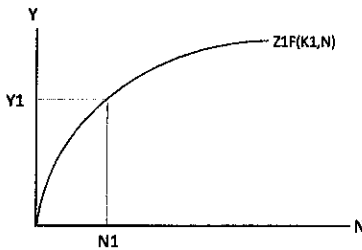


- Multiplier effect is $Y_1 \rightarrow Y_1'$
- Crowding-out effect is $Y_1' \rightarrow Y_2$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G will affect bigger shift of IS curve because G Multiplier is larger than T Multiplier.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



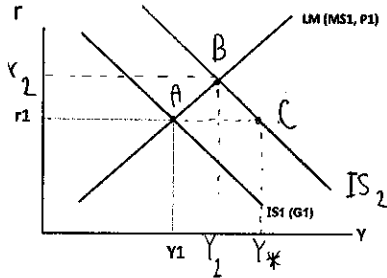
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
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- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
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 - Nd shift to the right
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* < N_F$
 - $N^* = N_F$
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 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
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- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
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 - Ns shifts to the right
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.

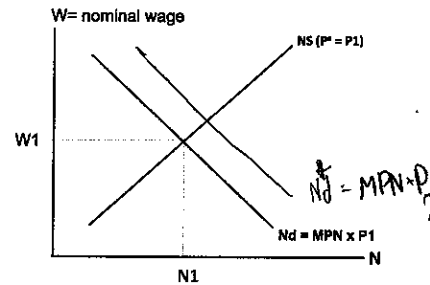
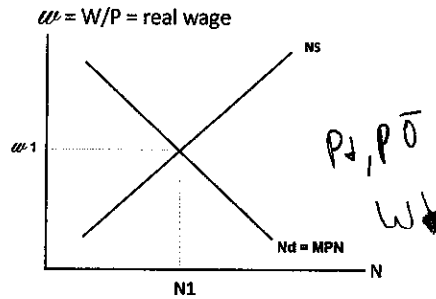
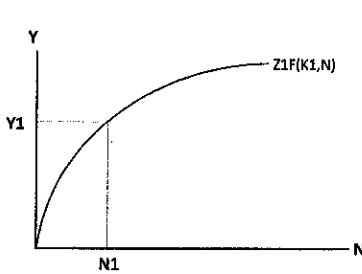


- Multiplier effect isC..... ($Y_1 \rightarrow Y^*$)
- Crowding-out effect isB..... ($r_1 \rightarrow r_2$)

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

.....G..... from the formula $\frac{1}{1-b}$, $\frac{-b}{1-b}$ will prove that G has more effect

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P1 to P2. Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



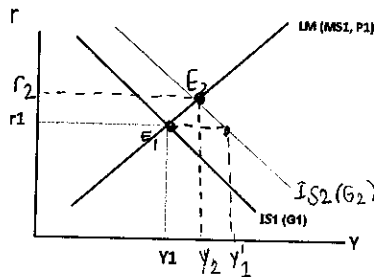
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* < N_F$
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- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
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 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect. θ_2

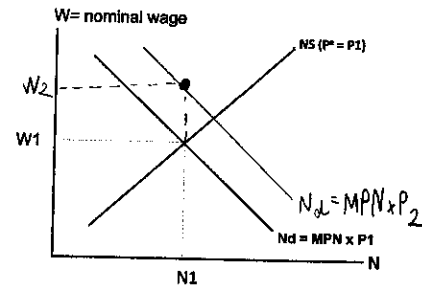
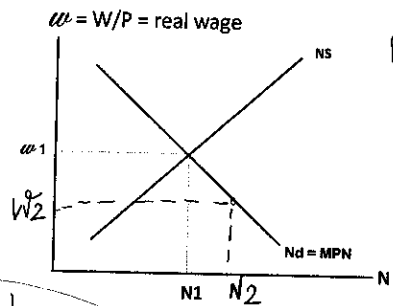
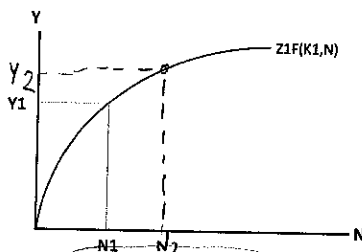


- Multiplier effect is Y_1, Y_1'
 - Crowding-out effect is Y_1', Y_2
- $m \times \Delta$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because T is one of $C (C = C_g + b(Y-T))$ which $G = G_a$ in AE

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



$f = Z(F(K, N))$
 $= W(24 - L)$

PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

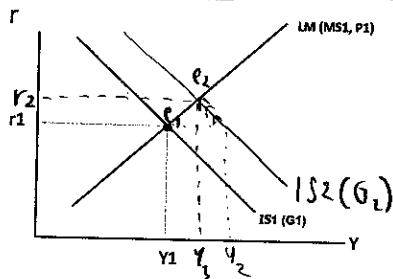
N_s : people
 N_d : firm

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left**
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right**
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
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EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



$G \uparrow \rightarrow DA \uparrow \rightarrow IS \text{ shift} \rightarrow$

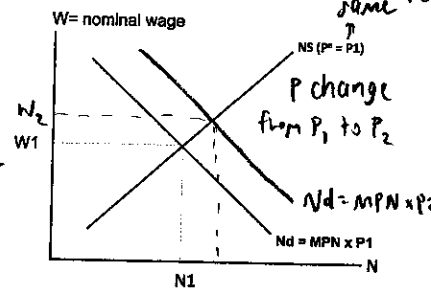
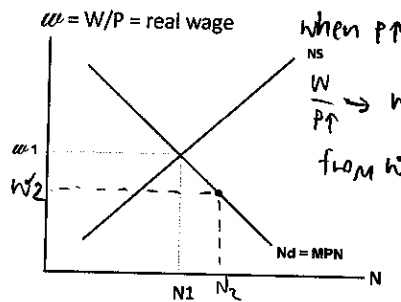
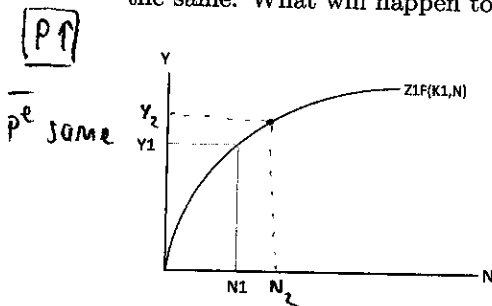
- Multiplier effect is $\dots Y_1 \text{ to } Y_2 \dots$
- Crowding-out effect is $\dots Y_2 \text{ to } Y_3 \dots$

$(Y) = C + I + G + X - M$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G , because T is in Y^d so it doesn't have straight effect to (Y) like G does.

3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



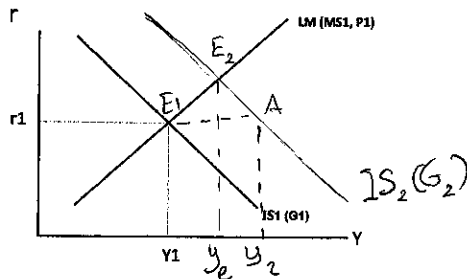
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - (c)** Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - (a)** Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - (c)** Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* < N_F$
 - $N^* = N_F$
 - (c)** $N^* > N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
 - $N^* < N_F$
 - (b)** $N^* = N_F$
 - $N^* > N_F$
 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - (d)** No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

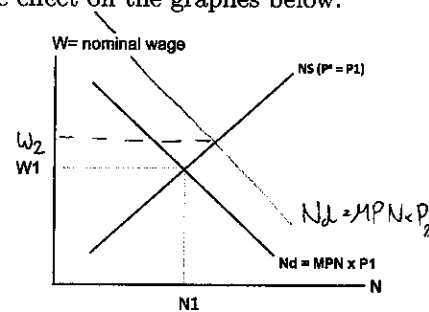
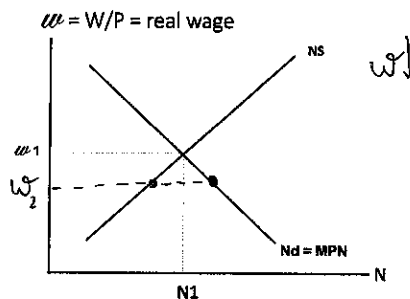
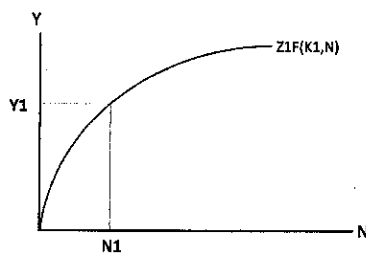
PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



- Increase from $G_1 \rightarrow G_2$
- Multiplier effect is $y_1 \rightarrow y_2$
 - Crowding-out effect is $y_2 \rightarrow y_e$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G (and why?)
G will produce the bigger shift because G multiplier is $\frac{1}{1-b}$ and tax multiplier is $\frac{-b}{1-b}$ which b is between 0 and 1
3. (10 marks) Given that technology and aggregate capital remain the same (Z and K remain the same). Suppose price level increases from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



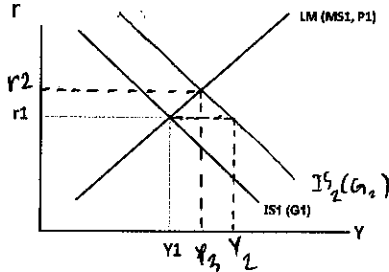
PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by circling the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market?
 - Ns shifts to the left
 - Ns shifts to the right
 - Nd shift to the right
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- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
 - $N^* < N_F$
 - $N^* = N_F$
 - $N^* > N_F$
 - No correct answer given
- (10 marks) Suppose both producers and workers calculate the price correctly ($P^e = P^*$). Which of the following is correct?
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 - No correct answer given
- (10 marks) Suppose price level decreases. Workers adjust their expected price accordingly (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the left
 - Ns remains the same
 - Ns shifts to the right
 - No correct answer given

EE312 (2/2019 Section 046402): Quiz 1. The Core IS-LM AD-AS [100 marks 10 Min.]

PART 1. (40 marks) Short Answer. Answer each question in the space provided.

1. (20 marks) Suppose government expenditure (G) increases. Please show the effect on the graph below. Specify the size of the multiplier effect and the crowding out effect.



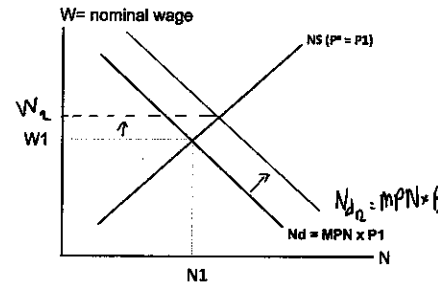
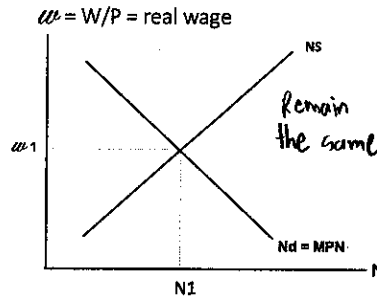
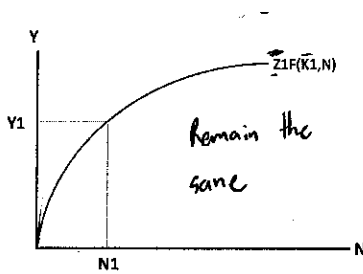
- Multiplier effect is Y_1 to Y_2
- Crowding-out effect is r_1 to r_2

① $G \uparrow \Rightarrow I \uparrow \Rightarrow PA \uparrow \Rightarrow Y \uparrow$
 ② $Y \uparrow \Rightarrow r \uparrow \Rightarrow I \downarrow \Rightarrow Y \downarrow$

2. (10 marks) For the same amount of the change, which one would produce a bigger shift of IS curve, T or G and why?

G because multiplier amount in G is bigger than multiplier in T

3. (10 marks) Given that ~~technology and aggregate capital~~ remain the same (Z and K remain the same). Suppose price level **increases** from P_1 to P_2 . Producers adjust the price accordingly while workers' expectation on price (P^e) remains the same. What will happen to the production function and labor market? Show the effect on the graphs below.



PART 2. (60 marks) Multiple choices. Consider labor demand/labor supply as a function of "nominal wage". Please choose the correct answer by **circling** the choice.

- (10 marks) Suppose there is a positive productivity shocks. Labor's expected price remain the same (P^e remains the same). What is the effect on labor market?
 - Ns shifts to the right
 - Ns shifts to the left
 - Nd shift to the right
 - Nd shifts to the left
- (10 marks) Suppose workers' expected price decreases (P^e decreases). What is the effect on labor supply?
 - Ns shifts to the right
 - Ns shifts to the left
 - Ns remains the same.
 - No correct answer given
- (10 marks) Suppose price level increases. Workers' expected price remains the same. Producers notice the increase in the price level. What is the effect on labor market? P^e same
 - Ns shifts to the left
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 - Nd shifts to the left
- (10 marks) Suppose producer calculate the price correctly but workers miscalculate the price. Workers' expected price is lower than the equilibrium price ($P^e < P^*$). Which of the following is correct?
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 - Ns shifts to the left
 - Ns remains the same
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 - No correct answer given

