



## Review question for midterm exam

EE312: Intermediate macroeconomics

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## Business cycles fluctuations and measurement

1. Briefly explain about the “trend”, “seasonal” and “cyclical” component in real GDP. What are they? What is the key feature that differentiates “seasonal” component from “cyclical” one?
2. What is the business cycle fluctuations? Is the pattern of the observed business cycles fluctuation deterministic or stochastic? How do economist measure business cycles?
3. What are random shocks? What role do they play in accounting for the business cycles?
4. Why do we measure the cyclical component of key aggregate variables in terms of its percentage deviation? Why don't we measure them up in the level term?
5. Discuss the similarities and differences between covariance and correlation.
6. Should expect an upward sloping curve for any two variables with positive correlation?
7. Is the unemployment rate a leading economic indicator?
8. What is pro-cyclical variable? Give an example.

## Closed economy macroeconomic model

1. Describe the adjustment toward equilibrium under the Keynesian cross model. What is the role of planned and unplanned inventory in the analysis?
2. Discuss and explain about the concept of multiplier.
3. What is the IS curve? Explain the underlying intuition for the IS relation.
4. What are the factors that determine the slope of IS curve? Should the IS curve be steeper or flatter if both private consumption and private investment are more responsive to the interest rate?

5. An increase in government spending would cause (a) a movement along the IS curve or (b) an outward shift of the IS curve. Why?
6. What determine the size of a *horizontal shift* of the IS curve? (Hint: you may think about the exogenous increase/decrease in autonomous expenditure.) Does the size of a horizontal shift have any relationships with slope of the IS curve? Why or why not? Explain.
7. What is the LM curve? What determine the slope of LM curve?
8. What are the factors that determine the slope of LM curve? Should the LM curve be steeper or flatter if demand for money sensitively responds to market interest rate?
9. A systemic panic in financial markets would cause (a) a movement along the LM curve or (b) an upward shift of the LM curve. Why?
10. Would it the effect of fiscal policy (either tax cut or the increase in government spending) be more pronounced (stronger) under the IS-LM model than under the traditional Keynesian cross? Why?
11. Why does the aggregate demand curve have a downward sloping shape in general price level? Explain the intuition. Link the analysis to your IS-LM model.
12. Does the increase in money supply cause (a) a movement along the aggregate demand curve or (b) an upward increase in aggregate demand curve? Explain the underlying mechanisms for your answer. Link the analysis to your IS-LM model.

## Open-economy macroeconomics

1. Explain the difference between a closed economy and an open economy. Explain also how the pursuit of internal equilibrium will be different between the two types of economies.

2. Consider the IS-LM-BP model of an open economy with a constant price level, perfect asset substitutability, and perfect capital mobility. The economy is initially in both internal and external equilibrium.

a. Explain why the BP curve is a horizontal line at  $r = r_f$ , where  $r$  is the domestic nominal interest rate and  $r_f$  is the foreign nominal interest rate.

b. Define the internal equilibrium and external equilibrium of the economy, respectively.

3. From question 2, suppose now that the domestic economy decides to reduce its money supply.

a. What are the initial effects of this monetary policy on the goods market, the money market, the foreign exchange market, and the balance of payments of the domestic economy? Which curve(s) will shift?

b. What is the adjustment mechanism under a fixed exchange rate regime? Illustrate and explain which curve(s) will shift during the adjustment, and then compare the new equilibrium with the initial equilibrium.

c. What is the adjustment mechanism under a flexible exchange rate regime? Illustrate and explain which curve(s) will shift during the adjustment, and then compare the new equilibrium with the initial equilibrium.

4. From question 2, suppose now that the domestic government decides to increase the government spending.

a. What are the initial effects of this fiscal policy on the goods market, the money market, the foreign exchange market, and the balance of payments of the domestic economy? Which curve(s) will shift?

b. What is the adjustment mechanism under a fixed exchange rate regime? Illustrate and explain which curve(s) will shift during the adjustment, and then compare the new equilibrium with the initial equilibrium.

c. What is the adjustment mechanism under a flexible exchange rate regime? Illustrate and explain which curve(s) will shift during the adjustment, and then compare the new equilibrium with the initial equilibrium.

5. If a country has a surplus balance of payments, what will be the appropriate government policy to restore the balance of payments back to equilibrium? What effects might this have on the country's income?

6. Imagine that we have a country with imperfect capital mobility and flexible exchange rate. What will happen with domestic income and interest rate if there is a decrease in foreign interest rate? Explain your answer.

7. Show graphically using the Mundell-Fleming model what impact will have an introduction of import restrictions (that improve net exports exogenously, irrespective of the exchange rate). Assume that we have a flexible exchange rate and a perfect capital mobility. Will the introduction of import restrictions improve net exports in equilibrium, as argued by many politicians?

8. Suppose that the government of the small open economy with perfect capital mobility and flexible exchange rate increases lump taxes. Please, compare the impact of such a policy on income, private savings, investment, real interest rate, trade balance and real exchange rate.

9. The small economy of Rokitkovo, due to outstanding economic policy run by president Rokitek stays at full employment. After another sleepless night, president Rokitek has decided to change the structure of demand in order to increase investment. What should be the mix of fiscal and monetary policy if there is no international mobility of capital and the economy has fixed exchange rates. Show your results drawing the necessary diagram.

10. What will be the impact of revaluation of domestic currency if we have an economy with imperfect capital mobility and fixed exchange rates? Would be the impact larger if we had a perfect capital mobility in this case?

11. Imagine that these days USA, the biggest trade partner of Thailand, is suffering from a deep economic slowdown. How would it influence Thai economy if we had to maintain the fixed exchange rates (there is an imperfect capital mobility)? Show the necessary diagram and provide the written justification.

12. The ungrateful citizens of Kalaland have decided to elect Mr. Lazyman as a new president. As a result, the government started to increase its spending and ran huge budget deficits. Yet, the time of economic slowdown arrived and there was a necessity to cut public spending sharply. How would it influence the economy of Kalaland if, for some reasons, Kalaland was forced to keep a fixed exchange rates? Assume that we start from equilibrium and there is an imperfect capital mobility.

13. Applying the Mundell-Fleming model analyse the impact on domestic income, interest rate, CA and KA of the following events:

(a) an increase of foreign interest rate;

(b) a fall of foreign demand on domestic goods.

Provide an analysis for two different countries: - country A with fixed exchange rate and perfect capital mobility - country B with flexible exchange rate and imperfect capital mobility

#### **14. (Transmission under interdependence economy: Spillover effect)**

14.1) Assume that the US government decides to increase its public spending. Use the IS-LM / AD-AS model to explain the dynamic of US macroeconomic variables followed from the spending program. (Hint: suppose that US economy is a closed-economy)

14.2) Suppose that Carlaland is a small open economy. Following the results in (14.1), use the Mundell-Fleming model and analyze the spillover effects of US policy on domestic income and interest rate of Carlaland. Suppose that Carlaland faces perfect capital mobility under the flexible exchange rate regime? What would happen with exchange rate and domestic exports? Explain.

## **Medium-term business cycles**

1. What is the nature of business cycles over the medium-term? Does shock generally create permanent effect of the macroeconomy?

2. Discuss about the natural pattern of the effects of monetary policy shock to key macroeconomic variables. Link your answer to the empirical evidences that we discussed in class.
3. On its average basis, why do we always observe positive unemployment rate in the economy?
4. Should firm continue to hire more labor if  $VMP > W$ ? Why? What is the optimal decision rule of firm for the labor employment problem?
5. Is the labor supply always an upward sloping in real wage?
6. Using the Neo-classical interpretation, what is the natural rate of unemployment? Give some examples of key fundamental factors that can decrease the natural rate of unemployment? Link your analysis to the labor market diagram that we discussed in class.
7. Can demand factors, such as monetary policy shock, affect the natural rate of unemployment? Explain the intuition behind your answer.

## Sample of questions from old exam

### Sample of True/False questions (10 minutes for each question)

- a) Fixed-weight GDP is an unbiased measurement of the aggregate activities.
- b) Under the IS-LM framework, interest rate is a pro-cyclical variable under monetary policy shock.
- c) Under the flexible-price Keynesian AD-AS framework, price and output positively comove under supply shocks.
- d) Given other things fixed, a country should expect a depreciation in its currency if the level of money growth is higher.
- e) Given other things fixed, the BP curve is steeper when the marginal propensity to consume is higher.
- f) Fixed-weight consumer price index is the best indicator that reflects the true cost of living and the change in people's welfare measurement.
- g) Currency depreciation improves the country's trade balance.
- h) IS shocks are ineffective under the small-open economy with the perfect capital mobility condition.
- i) Rising productivity growth should bring about in a depreciation of domestic currency.
- j) An increase in US Fed fund rate should directly lead to a depreciation in USD.
- k) Fiscal multiplier is larger when money demand is inelastic to interest rate.
- l) An expected depreciation in Thai baht should result in an appreciation in USD.

## Sample of Long question

Comment on the following statements (30 minutes for each question)

- a) Under the perfect capital control, monetary policy is ineffective.
- b) The central bank can manipulate the level of domestic interest rate (setting it below or above the level required by global investors) while maintaining the fixed exchange under a free flow of capital mobility environment.

## Sample of long analytic/applied question (60 minutes)

Many have heard about the US Sub-prime mortgage crisis that initially started out in 2007, when BNP Paribas declared for a suspension on the redemption of their Sub-prime related funds. The suspension was due to the shortage of market liquidity of Sub-prime bonds, which was triggered by a widespread concern among investors over the quality of the Sub-prime bonds that had initially been perceived to be highly-rated quality one. In 2008, the default rate on highly-rated Sub-prime bonds turned out to be higher than earlier anticipated. Many financial institutions, both US and worldwide, greatly suffered from financial loss in the Sub-prime related assets. Credit markets became frozen; liquidity dried out. Financial panics occurred worldwide. The consequence of the financial meltdown led to one of the worst economic recession that the US had experienced since the Great depression in 1930s. The effect of US Subprime spilled out to impact the whole world economy, including Thailand.

a) Use the IS-LM model to analyze the impact of the Sub-prime crisis on the US Economy. How do you capture the origin of the problem using the IS-LM model? Explain the key mechanism that shock had led to the recession.

b) Analyze the impact of the U.S. subprime crisis and recession on small-open economies using the IS-LM-BP. For simplicity, assume a perfect capital mobility condition. What is the key characteristics of a small-open country that is likely to get serious hit from the US subprime crisis? (Hint: Better check if your predictions contradict to what actually happened. If yes, what you seem to have thought as an obvious thing may not be as obvious as you think.)

Continued with the story described above. Following the Sub-prime crisis in the US, fed pursued several aggressive monetary expansion policies. The aim was to contain and stabilize the problem. These policies have been commonly known as quantitative easing or QEs. Consider the following problems.

c) Use the IS-LM-BP model to analyze the impact of the QEs policy on Thai economy. What is the most likely impact of the QEs policy to output, exchange rate and trade account of Thailand? (**Hint:** State out key assumptions that you need, and be consistent throughout.)