NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF SOCIAL SCIENCES
SEMESTER 1 AY25-26

HE1002 MACROECONOMICS I

PROBLEM SET 7

7-1

Is each of the following policies an example of expansionary or contractionary fiscal policy? Explain your answers in terms of the effect on aggregate demand.

a. The government slashes funding for the Environmental Protection Agency, without changing any other spending.

b. The government raises taxes on households making more than $250,000.

c. The government decides to fill gaps in Medicare by making it available to more people.

7-2

The economy is growing far too quickly, as high aggregate demand is causing inflation. What fiscal policy should be pursued in this instance—expansionary or contractionary? What will be the effect of the appropriate policy on aggregate demand?

7-3

Assuming that unemployment is high and spending is low, answer the following questions.

a. Should the government pursue expansionary or contractionary fiscal policy?

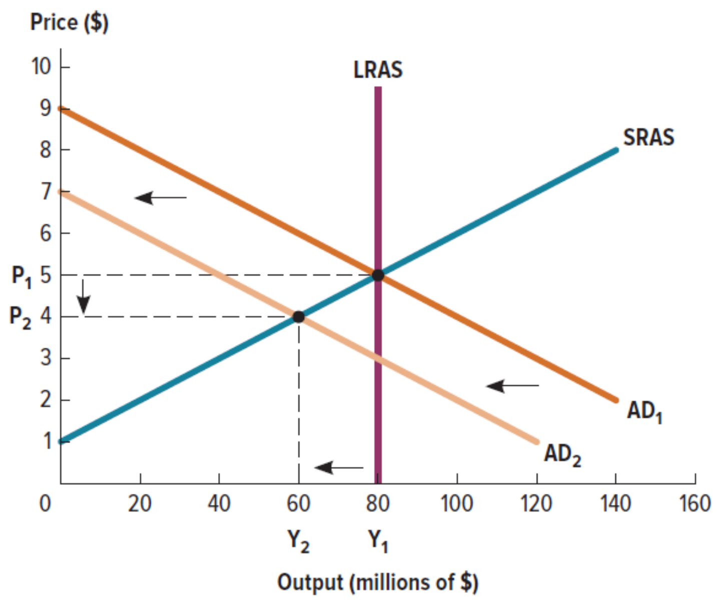
b. What will the appropriate policy do to the aggregate demand curve? Will the curve shift to the right or to the left?

c. Through which component(s) of aggregate demand (C, I, G, or NX, or some combination of the preceding) will the change occur?

7-4

The diagram in Figure 13P-1 shows aggregate demand for New Caprica last year (AD_1) and this year (AD_2). If you were to advise the president of New Caprica on economic policy, how would you answer the following?

Figure 13P-1



a. How large is current output? How large is potential output? What is the difference, if any, between the two?

b. Is New Caprica in a recession or a boom?

c. Given your findings, should the president enact expansionary or contractionary fiscal policy, or no policy at all?

d. Which direction would the aggregate demand curve shift if the president used contractionary fiscal policy?

7-5

"Our fiscal policy was unsuccessful," an economic analyst says, "due to partisan bickering in Congress that delayed the passing of the appropriate measures and our failure to realize we were headed into recession until it was too late." What type of lags is the analyst describing?

7-6

Assume that the government in some nation intended to respond to low employment via fiscal policy. What type of policy would this require? Assume that this policy ended up having an undesirable outcome. How could this happen in terms of formulation and implementation lags?

7-7

Saabira earns $68,000 a year and pays an average tax rate of 15 percent.

a. Calculate Saabira's disposable income and the amount of tax she pays to the government.

b. Suppose a recession hits the economy and Saabira's income falls to $60,000 per year due to the fact that she is earning a smaller annual bonus. If she now pays an average tax rate of 12 percent, what is her disposable income and the amount of tax she pays to the government?

c. Calculate how much Saabira's annual salary and disposable income fell by due to the recession.

d. Explain how income taxes are an automatic stabilizer in this example.

7-8

True or false? If the amount of time a person is eligible for unemployment compensation is reduced from 26 weeks to 4 weeks, people will have an incentive to quickly find a new job. This occurs because unemployment compensation is an important automatic stabilizer for the economy.

7-9

Consider three countries. The first country runs small budget surpluses each year. The other two countries run large budget deficits each year. In one of the deficit countries, the national debt-to-GDP ratio has been steady, whereas in the other deficit country, the national debt-to-GDP ratio has been rising. Suppose each of these countries decides to reduce income taxes. Is Ricardian equivalence likely to hold in all of these countries? Why or why not?

7-10

A country is in the midst of a recession with real GDP estimated to be $2.7 billion below potential GDP. The government’s policy analysts believe the current value of the marginal propensity to consume (MPC) is 0.90.

a. If the government wants real GDP to equal potential GDP, by how much should it increase government spending? Alternatively, by how much should it reduce taxes?

b. Suppose that during the recession people have become less confident and decide they will spend only 50 percent of any additional income. In this case, if the government increases spending by the amount calculated in part a, will real GDP end up less than, greater than, or equal to potential GDP? By how much?

c. With the same decrease in consumer spending described in part b, if the government decreases taxes by the amount calculated in part a, will real GDP end up less than, greater than, or equal to potential GDP? By how much?

d. Why is it difficult for the government to predict exactly how a change in spending or taxes will affect GDP?

7-11

If in some year a nation's budget deficit is $9.49 trillion and government spending is $12.26 trillion, how much must it have earned in tax revenue this year?

7-12

"The government shouldn't borrow so much," your uncle claims. "Look at that national debt! It's no different from someone borrowing on credit cards they can't pay."?

a. Is your uncle right?

b. How is government debt spending like someone borrowing on a credit card?

c. How is government debt spending different from someone borrowing on a credit card?

7-13

Econo Nation started 2015 with no national budget debt or surplus. By the end of 2015, it had a budget surplus of $304 million; in 2016, it had a budget deficit of $452 million; in 2017, it had a budget surplus of $109 million. The amount of its budget deficit or surplus in 2018 is unknown. If at the end of 2018 Econo Nation's national debt totaled $50 million, did it run a deficit or surplus in 2018? How much?

7-14

"Though the national debt has increased, don't worry," the president says in a televised speech. "We will not have to pay these funds back to bond buyers." How is this possible? How must the government have financed its debt in this case?

7-15

You buy a Treasury note for $950. Every 6 months you receive a payment of $40.

a. What is the annual rate of return?

b. What would be the annual rate of return if the payment was instead $30?

c. What would be the annual rate of return if the payment was instead $45?

7-16

Your friend believes buying Treasury bills or Treasury notes will offer protection against rising inflation in comparison to buying stocks or mutual funds, because the rate of return on the Treasury bills and notes is known at the time of purchase. Do you agree? Why or why not?

7-17

Which of the following are examples of the negative effects associated with government debt?

a. Increased interest rates.

b. Increased taxes or lower spending in the future.

c. Increased investment in the economy.

7-18

If the government could borrow as much as it liked with a 0 percent interest rate, would the government debt be cost-free? Explain your answer.