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Macroeconomics

Final Exam

1. The United States has suffered from persistently high current account deficits for many years. You are asked for policy prescriptions to reduce these deficits for many years.

a) Name a change in government policy that will reduce the U.S. current account deficit for many years. Clearly explain, in the context of a model of an economy developed in class, why your policy change will reduce the deficit. Employ at least 1 equation in your explanation.

b) Explain how your policy change will affect investment (as defined by macroeconomists) in the U.S.

c) Explain how your policy change will affect the amount of borrowing that the U.S. does from foreigners.

d) Explain how your policy change will affect the U.S. budget surplus.

e) Explain how your policy change will affect U.S. consumption in the short run.

f) Use 1 or more graphs to illustrate the long run effects of your policy change in the loanable funds markets in the U.S. and in the rest of the world.

2. In a hypothetical small open economy the interest rate is 10%, the effective business tax rate is 30%, the marginal propensity to consume is 90%, and the rate of depreciation is 20%.

a) Calculate the user cost of capital in this economy.

b) Use a graph to illustrate the equilibrium level of capital in the economy. Only 1 number is required on your graph—the user cost of capital.

c) Suppose now that savings falls in the rest of the world. Show on your graph above how this event changes the equilibrium level of capital in the economy.

3. Explain the difference between national income and private disposable income. Which measure of income has a stronger correlation with personal consumption expenditures? Explain.

4. The U.S. has experienced inflation every year since 1992, and has not had a recession since 1992. In light of this information, which has changed faster since 1992 in the U.S.—real GDP or nominal GDP? Explain.

5. In a hypothetical world there are only two open economies—“Germany” and “the Rest of the World”

Suppose the following equations describe Germany, country G:

full employment real national income, $Y^G = 40$

$$C^G = 5 + .8(Y^G - T^G) - .25r^w$$

$$I^G = 10 - .1r^w$$

$$G^G = 5$$

$$T^G = .25Y^G$$

And these equations describe the rest of the world, country R:

full employment real national income, $Y^R = 40$

$$C^R = 5 + .8(Y^R - T^R) - .25r^w$$

$$I^R = 16 - .1r^w$$

$$G^R = 5$$

$$T^R = .25Y^R$$

Calculate:

the world interest rate _____

Germany's net exports _____

the Rest of the World's capital account balance _____

World investment _____

Change in world investment if Germany increases G to $G^G = 7$ _____

6. Next year, Congress and the President may permanently cut taxes and increase government spending.

a) Use an IS/LM model to illustrate the short run and long run effects of these actions, assuming that the Fed intervenes in the transition to restore full employment GDP.

b) Write your short run forecasts for private savings, investment, the budget surplus, and the trade deficit below. Explain each forecast.