MACROECONOMICS A
FINAL EXAM
03.09.2010

Professor Tom Krebs

The exam consists of 5 (five) questions. Answer all questions.

The exam is worth 100 points.

Use a new sheet for each of the five questions.

Use graphs and label them carefully.

Be short in your answers.

Define symbols and use them in your answers.

Good luck!

Question 1 (20 points)

i) Use the closed-economy saving-and-investment model to discuss the effect of a debt financed tax cut on the real interest rate, national saving and investment. Provide one graph supporting your answer.

ii) Use the bond market model to explain how the debt financed tax cut affects the real interest rate. Support your answer with an appropriate graph.

iii) Discuss the effect on saving and investment if the tax cut is accompanied by a cut in government expenditures to balance the government budget.

Question 2 (20 points)

i) What are the main properties of the Keynesian consumption function? How successful was the Keynesian consumption function empirically?

ii) Name the main difference between the Keynesian consumption function and the consumption function implied by the Fisher model. Under which condition does Keynes and Fisher predict similar consumption behavior?

iii) Use the two-period Fisher-Model. State the household's utility maximization problem and derive the first-order condition. Give an economic interpretation of this equation.

Question 3 (20 points)

The Greek government has been running a fiscal policy of large deficits for some time. In the following, assume that Greece is a small open economy to answer the questions.

i) Starting from an initial situation with a balanced budget, discuss the effect of the Greek fiscal policy on Greek saving, Greek investment, and capital flows.

ii) How is the real exchange rate between Greece and Germany affected? How can this be explained when both countries share the same currency, namely the euro? What happens to the Greek trade balance with Germany?

iii) International financial investors have recently cast doubt on the ability of the Greek government to repay its debt. Discuss how this change in financial market conditions will affect Greek capital flows.

Question 4 (20 points)

i) How did the increase in trade openness contribute to India's productivity growth? In your answer, use bullet-points for the various channels, and be short.

ii) Assume that the effects you described in part i) all happen at one point in time. How does this increase in India's trade openness translate into the Solow growth model? Use one graph to show and describe in detail the adjustment process of capital (k).

iii) Write down the condition defining steady state capital, and the formula defining steady state consumption. For capital and consumption, draw the time paths which correspond to the adjustment process described in ii). Also draw the time paths of the growth rates.

iv) Draw a graph showing the Golden Rule consumption in the Solow growth model. Write down the condition defining the Golden Rule level of capital. Using this formula, show how India's Golden Rule level of capital is affected by the increase in trade openness.

Question 5 (20 points)

i) Germany recovered faster than expected from the recent worldwide crisis. Use the AD-AS framework to explain how the government's so-called growth pact (Wachstumspaket) might have helped. Start from an initial situation where Germany is in a recession (i.e. not in the long-run equilibrium). Provide one graph supporting your answer.

ii) According to the AD-AS model, what would have happened if the German government had done nothing? Starting from the same initial situation as in part i), explain the adaptation mechanism and provide a graph supporting your answer.

iii) Also quite unusual for Germany, unemployment remained relatively low and stable during the crisis. Short-time work ('Kurzarbeit') is mostly given as a reason (under 'Kurzarbeit', people stay employed but have to work less). Write down the equilibrium unemployment rate of the search model of unemployment. Using only this formula, show how a recession could increase unemployment, and how short-time work could counteract this increase.

iv) Name three government policies that affect the equilibrium unemployment rate and state whether they increase or decrease it. Also state whether they act on the job finding rate, the job separation rate, or both, and in what direction.