

(Part I was midterm 3 on Nov 29, 2007)

**PART II. QUESTIONS FROM ANY PART OF THE COURSE
(65 points total; about 1 hour total)**

Question 1 (15 points total; 15 minutes total)

- a. (5 points) Robert Dye, senior economist at PNC Financial Services Group, said today, "If you take the stronger-than-expected economic data we saw this week in the form of retail sales and add to that the inflation data and then combine that with a somewhat ambiguous statement from the Fed, you get a picture as clear as mud" (http://biz.yahoo.com/ap/071214/wall_street.html). When everyone is uncertain about where the economy is heading, what happens to stock prices? Why?
- b. (5 points) Why does foreign saving respond to a change in our U.S. interest rates? Is your answer the same even if exchange rates are fixed rather than floating? Why?
- c. (5 points) You buy some land near the California-Oregon border for \$100,000. What is the impact on GDP? Why?

Question 2 (15 points; 15 minutes)

Monetary policy of nearly all central banks in developed economies can be described by a Taylor rule of the form

$$r = r_0 + r_\pi(\pi - \pi^t) - r_u(u - u^t)$$

Consider the following four scenarios.

- [A] Inflation is rising and unemployment is falling
 - [B] Unemployment is rising and inflation is falling
 - [C] Increased autonomous planned expenditures (A_0) occur at the same time as the productivity growth rate increases
 - [D] Drops in autonomous planned expenditures (A_0) occur at the same time as inflationary expectations rise
- a. (10 points) For each scenario, what action would the central bank take? Explain. (Do not assume "crystal ball" rational expectations. You can assume static or adaptive expectations.)
- b. (5 points) Central bankers like some "fights" more than others. Rank these four scenarios from "central bankers like this one most of all" to "central bankers like this one least of all." Then explain your ranking. Be sure to tell us any assumption(s) you invoke about why the central bank prefers one fight over another.

Question 3 (15 points; 15 minutes)

Earlier this week, I heard a radio advertisement for Austria (a country of 8 million people in the heart of Western Europe). The ad talked about Austria's emphasis on research and development, the relatively large number of important inventions and scientific discoveries that come from Austria, the emphasis on science and discovery in the public schools, and the generally high quality of the Austrian schools. The ad was encouraging scientists to move to Austria.

- a. (8 points) If all of the ad's claims are true, what can you say about the level and growth rate of the standard of living in Austria? Explain.
- b. (7 points) If indeed a very high share of the Austrian labor force is involved in research, then lots of workers in Austria are high-skill high-output workers. In that case, what can you say about the relationship between GDP and unemployment in Austria? What does this tell you about the value of Okun's Law coefficient for Austria? (Use either form of Okun's Law.) Explain.

Question 4 (10 points; 10 minutes)

Joe says: "The falling dollar is bad for America!"

Jane replies: "No it's not! The falling dollar is great for America!"

Who is right? Who is wrong? Explain.

Question 5 (10 points; 10 minutes)

In the 1970s, the U.S. experienced big increases in oil prices. As a result, many industries chose in the 1980s to invest in new machines that saved on energy but which didn't improve labor productivity much at all. Explain the impact of this investment choice within the context of the Solow growth model. How did this investment choice affect the growth of the standard of living in the 1980s? Supplement your answer with a graph.

Part III. The Comprehensive Essay Question (60 points; 60 minutes)

Congratulations! You've just been hired as a staff writer by The Economist magazine. What a great job! Your new boss admires your Cal education, and wants you to use your knowledge of macro to help general readers understand the long-run and short-run causes and implications of the fall of the dollar. Your article will be read by folks who have little detailed knowledge of economic theory. Don't use lingo (MPRF is lingo; "Federal Reserve monetary policy" is not). Graphs may not help; non-economists might not understand them. But do explain things clearly and highlight relevant assumptions. Here is your boss's memo to you.

Welcome to The Economist. Please prepare an article on the long-run and short-run causes and implications of the fall of the dollar. Because this is your first article for us, I pose some questions below and suggest you use them as an outline for your article. By the way, the next FOMC meeting is Tuesday December 11. It would be best if your article reflected what the Fed decided at that meeting.

- ▶ Recent reports on the U.S. economy have been somewhat mixed. Business Week reports: "Taken together, recent data point to modest, though not especially strong, growth ahead for the U.S. economy." Personal saving is at an all-time low. Prices seem to be rising at a higher rate than in recent years. Please begin your report by describing current economic conditions, especially those relevant to the rest of your article.
- ▶ What are the causes and consequences in the short run of a decline in the dollar? In this section, be sure to explain what factors may be responsible for the dollar's decline, be sure to define your terms (in particular, not every reader immediately knows what "the exchange rate" is, for instance), and explain how the dollar's decline can affect unemployment and inflation in the short run.

- ▶ In your next section, I think you should turn to the long-run implications of a decline of the dollar. What can we say about the long-run causes and consequences of the dollar's decline?
- ▶ So what can the Fed do? And should it do anything? Here, I'd like to see a good discussion of what determines Fed policy, why a decline in the dollar may (or may not) be something that they take into account in setting policy, and how their policy decisions will affect the economy.
- ▶ The speculative part of your article can come next. Everyone is talking about "what if foreigners tire of funding U.S. borrowing?" Explain for our readers why foreigners may stop lending despite rising domestic interest rates. What would happen in the U.S. economy in the short run and the long run if foreigners kept their wealth out of the U.S.? Should Americans be afraid, or not?
- ▶ Now that you've no doubt frightened your readers, you should give them some actions they could take, or that they could encourage others to take, that could alleviate their fears. Is the fate of the American economy completely in the hands of foreign investors? Or do Americans control their own fate?
- ▶ Finally, end with your thoughts on what will probably happen in the next year or so, and why.