Wilfrid W. Csaplar Jr., Ph.D.   Economics 350   Final Exam   2006/12/14

Write your name on the cover of the test booklet and on an otherwise blank page of the Excel file and nowhere else. Enclose this sheet with the booklet.   The Excel file will be handed in via Moodle. Failure to follow these directions will cost you 1 point. The test has 240 points (to be scaled down to 200 points) and is scheduled to take 120 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 16-point question should take 8 minutes. I can give you extra time, but not a large amount.

1) (16 points) Answer EITHER Part A OR Part B.
A) I feel that the government's deficit and debt will greatly slow down the growth of the full-employment level of GDP. How could it have this result?
B) Both fiscal conservatives and fiscal liberals feel that the government should either have a balanced budget or be running a surplus right now (but we have a large deficit). Why do they feel that?

2) (16 points) Answer EITHER Part A OR Part B.
A) Give TWO of the explanations for price rigidity.
B) What is meant by the *Misperceptions Theory*? What does it mean about the effectiveness of monetary policy? Explain their logic.

3) (16 points) Answer EITHER Part A OR Part B.
A) If you were in charge of the Federal Reserve, would you use rules or discretion for your policy? Explain your logic referring to a specific rule.
B) What is the money multiplier process? Explain how the Fed's buying a bond worth $100 can eventually cause the money supply to go up by nearly $1000.

4) (16 points) Answer EITHER Part A OR Part B.
A) Obviously, Salvation Army donations are not an economic indicator used to forecast the economy. However, the news reported that those donations are down 25% in some parts of the country compared to last year at this point. Would you expect those donations to be a-cyclical, pro-cyclical, or counter-cyclical? Why do you feel that? Would you expect them to be a leading, lagging, or roughly coincident indicator? Explain your logic.
B) I read recently that in the November report on leading economic indicators, seven of the 10 leading indicators say the economy is turning down with a downward measurement of -1.5%. Three of the four roughly coincident indicators were up, but the overall measurement for them was a 0% change. For the lagging indicators, five of the six were up for a measurement of +0.5%. Given that information, where in the business cycle do you think we are? Explain your logic.

5) (18 points) Answer EITHER Part A OR Part B.
A) Use the Supply and demand for the US$ vs. the Yen to illustrate an increase in the interest rates in Japan. Explain why the curve(s) moved as drawn. Which currency appreciated? How can you tell?
B) Draw the IS/LM/FE diagram. Illustrate an devaluation of the currency on the diagram. Explain why the curve(s) moved as drawn.

6) (20 points) Answer EITHER Part A OR Part B.
A) Explain EITHER of the theories of the determinants of the full-employment level of unemployment, a.k.a., natural rate of unemployment. Given the theory you explained, what can the government do to reduce the natural of unemployment? How would that achieve the desired results?
B) Draw the Short-run Phillips Curve/Long-run Phillips Curve diagram. Explain why it takes that shape.

Which school of thought is that description closest to? Explain your logic.

7) (48 points) Answer EITHER Part A OR Part B.
A) Use the IS/LM/FE, SRAS/LRAS/AD, and NS/ND diagrams to explain the **Neo-Keynesian** version of the business cycle. Explain why the curves moved as drawn. In their model, are the following variables pro-cyclical or counter-cyclical: real interest rate, marginal productivity of labor, and prices? How can you tell?
B) Use the IS/LM/FE, SRAS/LRAS/AD, and NS/ND diagrams to explain the **Neo-Classical** version of the business cycle (or the **Real Business Cycle** explanation, which is the same explanation.) Explain why the curves moved as drawn. In their model, are the following variables pro-cyclical or counter-cyclical: real interest rate, marginal productivity of labor, and prices? How can you tell?

Answer THREE of the questions below on the spreadsheets (and in the blue-books when appropriate). They are worth 30 points each.

8) (30 points) Suppose the economy is described by $C_t = 0.7(Y_{t-1} + (Y_{t-1} - Y_{t-2}))$, $I_t = 0.5(Y_t)$, $G_t = 160$, and $NX_t = 80 - 0.3Y_t$. Use this information to calculate the short-run multiplier. Suppose that for the past two years, GDP was $2300 and $2500 respectively. Use the spreadsheet page "Cycle" to use these equations to predict GDP for the next 60 years. If the government spending permanently cut to $150, then what is the long-run multiplier? **Plot the data.** Does that time-path show monotonic convergence, monotonic explosion, oscillating convergence, or oscillating explosion? Explain your logic.

9) (30 points) Use the data on the page "Patriots" on the Excel ® spreadsheet to do calculate all of the following forecasts for the rest of the season and playoffs for the Patriot's margin of victory. **Plot the actual sales and all five forecasts on the same graph.** (It will become evident why some of those methods are not used often. As a fan of the Patriots since the early 1970s, I particularly like the prediction using the "same ratio" but I doubt it will hold true.)
A) Same value
B) Same ratio
C) Same difference
D) 10-game moving average
E) 5-game weighted moving average

10) (30 points) Use the data on the page "Sales" on the Excel ® spreadsheet to run a regression to determine how sales are a function of time. Do the **quick** tests for autocorrelation **and** heteroscedasticity. If done correctly, you should find exactly one problem. If you found autocorrelation, then solve the problem and re-run the regression. Explain how you know the problem existed and why your method solved it. If you find heteroscedasticity, then ignore it and tell me how good the regression is, which variables are significant, and how you reached those conclusions.

11) (30 points) Use the data on the page "Seasonal Adj" on the Excel ® spreadsheet to answer this question. Calculate the CMA, PSI, ASI, RSF and seasonally adjust the original data. If this year's sales are $1000, how much would you expect to sell in March?