Wilfrid W. Csaplar Jr., Ph.D. Economics 350 Exam #3MU 2013/11/6

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. The Excel file will be handed in via Moodle. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (16 points) Use the data in the tab "Q1" of the Excel file to forecast quantity as a function of year, price, and income. Check for multi-collinearity of the independent variables. Is it acceptable to leave all three variables in? Why or why not? **If it is not acceptable**, re-run the regression without one variable and tell me why you left that variable out. **If it is acceptable**, then tell me how many apples you would expect to sell to a person with an income of $50,000 if you charged $10/apple, $5/pear, and $6/orange. Given the results, are apples and oranges substitutes, likely substitutes, likely unrelated, likely complements, or complements? Explain your logic.

2) (18 points) Use the data in the sheet "Q2" on the Excel file to run a regression to predict sales as a function of income and price. Do the quick checks for heteroscedasticity and autocorrelation. Explain how you know whether or not you had each problem. **If that both problems exist or that there is a problem with autocorrelation,** then run a regression which would adjust for that problem. Explain what you did. **If the problem is heteroscedasticity,** then do the formal test for it and explain what you did.

3) (10 points) Answer EITHER Part A OR Part B.
A) In the past, I used to say that the natural rate of unemployment, a.k.a. the unemployment rate at full employment, was about 5 - 5.5% for the USA. However, I now say it is about 6%. Use one of our two explanations of that rate to explain why I changed my view.
B) Explain a main reason why a government of a country with high inflation might **not** want to take a quick approach to fighting the high inflation.

4) (14 points) Illustrate the effects of EITHER the event in Part A OR the event in Part B on the supply and demand for US$ vs. £. Explain why the curve(s) moved as drawn. Does the British Pound (£) appreciate, depreciate, revalue, or devalue? Explain your logic.
A) British interest rates go down.
B) The British GDP increases.

5) (18 points) Answer EITHER Part A OR Part B.
A) Explain one advantage and one disadvantage of a fixed exchange rate over a flexible exchange rate. How does a fixed exchange rate cause them?
B) State **both** absolute and relative PPP. Explain why absolute PPP does not hold. Explain why for the most part, relative PPP does hold.

6) (24 points) Draw the Augmented SRPC/LRPC diagram and the SRAS/LRAS/AD diagram such that expected inflation is 4% and the economy is at full employment. Illustrate the effects of EITHER the even in Part A OR the event in Part B. Explain how you know your graphs show 4% expected inflation and full employment. Explain why the curve(s) moved as drawn and how you found the new points.
A) The Fed increases the money supply by 3%. People's expectations change to expecting a 5% increase in the money supply.
B) The Fed increases the money supply by 7%. People's expectations change to expecting a 5% increase in the money supply.