Wilfrid W. Csaplar Jr., Ph.D. Economics 350 Final Exam 2008/12/11

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 240 points (to be scaled down to 200 points) and is scheduled to take 120 minutes (2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (14 points) Answer EITHER Part A OR Part B OR Part C. (Yes, that is ONE of three.)
A) Give a politically feasible method of reducing the natural rate of unemployment. Explain how that would reduce the natural rate of unemployment.
B) What are the inflation and unemployment rates at the point where the short-run Phillips Curve (SRPC) crosses the long-run Phillips Curve (LRPC)? Explain your logic.
C) There are three different ways to finance government spending. For ONE of them, explain the problems caused by that type of finance.

2) (14 points) Answer EITHER Part A OR Part B.
A) Table 4 of your supplemental text is entitled **Proportions of Occurrences In Which Trends of Various MAGNITUDES Involved Cyclical Reversals of Business Activity.** Part of the table is recreated below. If housing permits decreased by 5.8% in one month, what would that tell you? Explain your logic.

Decreasing Trends During Cyclical Expansions	*Percentage Decrease Larger Than*							
	0.0	0.3	0.5	1.0	3.0	5.0	10.0	20.0
Housing Permits	0.29	0.33	0.33	0.37	0.48	0.59	0.77	1.00

B) Why does a variable need *economic significance* to be a good indicator used in forecasting? Make sure you define it.

3) (16 points) For EITHER *manufacturing inventories* OR *average duration of unemployment*, is it procyclical, countercyclical, or acyclical? Is it a leading, lagging, or roughly coincident variable? Explain your logic for both parts.

4) (16 points) Answer EITHER Part A OR Part B.
A) Give the Neo-classical model's explanation of the shape of the AD diagram. Draw the line.
B) Which of the Neo-Keynsian explanations of the wage rigidity do you feel is strongest? Explain how it causes wage rigidity.

5) (20 points) Answer EITHER Part A OR Part B.
A) Use the equation $M = \frac{cu + 1}{cu + res} * MB$ to explain how TWO of the Fed's tools affect the mo
supply.
B) Illustrate on the IS/LM/FE diagram the results of the Federal Reserve's buying bonds. Explain why the curve(s) moved as drawn.

6) (24 points) Answer EITHER Part A OR Part B.
A) Draw the supply and demand of the US$ versus the Egyptian pound (LE). Illustrate increase in the Egyptian price level. Explain why the curve(s) moved as drawn. Which currency appreciates? Explain your logic.
B) Draw the IS/LM/FE diagram for the USA. Illustrate on it an appreciation of the US$. Explain why the curve(s) moved as drawn.

7) (24 points) Answer EITHER Part A OR Part B.
A) Use the spreadsheet labeled "Steelers" OR the one labeled "Patriots" in the Excel file final.xls to do the *same value, same change, same percent change, 8-period moving average,* and *4-period weighted moving average.* Do NOT plot them. (These are their actual scores. As a Patriots fan, I hope all of the predictions come true.)
B) Using the spreadsheet labeled 7B in the Excel file final.xls, calculate the Laspeyre's style price index for all years using 2002 as your base year. Calculate the inflation rate for all of the years you can. Calculate the Paasche style price index for all years using 2002 as your base year. As we showed in the lab, the choice of base year is very important. One of the years would make a very bad choice. Which year is it and why would it make a bad choice?

8) (24 points) Answer EITHER Part A OR Part B.
A) Use the data on Sheet 8A on the file final.xls to run a regression to predict imports as a function of the *US Price, Chinese Price*, the *Exchange Rate* (*e*), and the *US GDP*. Are the results as a whole good? Explain your logic. Which variables are significant? Explain your logic. Test for multi-colinearity. **If you find it**, tell me how you know you have it and what should be done about it. Do not actually do it, just tell me what you would do. **If you do not find it**, predict what the level of imports would be if the US Price was $22/unit, the Chinese price was $16/unit, the exchange rate is 20 reminbi/$, and the US GDP is $1,700.
B) Use the data on Sheet 8B on final.xls to run a regression which would predict the *Sales* based upon *Price*. Do the visual tests for BOTH heteroscedasticity and auto-correlation. State what you did for both tests. **If there is heteroscedasticity**, do the formal test. **If there is auto-correlation**, then explain how you know there is a problem. What would you do to correct the problem? Explain what you would do without actually doing it. **If neither exist**, then calculate on the spreadsheet what you would expect *Sales* to be if the *Price* is $20/unit. Would you rely on this number? Explain your logic.

9) (40 points) Answer EITHER Part A OR Part B.
A) EITHER seasonally adjust the data on spreadsheet Seasonally on final.xls OR forecast through January of 2007 using the same data.
B) Suppose your consumption is 100 more than 90% of the average of this year's GDP and the last two years' GDP. Investment is 300 more than 30% of GDP. Government spending is 600. Exports are 200 and imports are 20% of GDP. Write those equations and find GDP as a function of lagged and exogenous variables. Use Sheet 9B to forecast for 50 years assuming that GDP was 1000 for each of the past two years. Plot the data. What type of pattern is that? Explain your logic. What is the short-run government spending multiplier? Explain your logic.

10) (48 points) For EITHER the Neo-Keynesian model OR the Neo-classical model, state how that model explains the business cycle. Draw the LRAS/SRAS/AD diagram, IS/LM/FE diagram AND the production function diagram. Illustrate on those three graphs, a decrease in the GDP caused by the business cycle. Explain why the curves moved as drawn. Given your graphs, are inflation, interest rates, and labor productivity procyclical, countercyclical, or acyclical?