

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. Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

- 1) (10 points) There are at least three different reasons why monetary policy may not work as desired. For ONE of them, explain why monetary policy may not work as desired.
- 2) (12 points) Answer EITHER Part A OR Part B.
 - A) Why might increasing interest rates cause the debt-to-GDP ratio to grow?
 - B) What is meant by *seigniorage*. Why might it be a good idea for some developing countries?
- 3) (14 points) Answer EITHER Part A OR Part B.
 - A) Draw the Neo-Classical School's SRAS Curve. Explain why it takes its shape.
 - B) What does the Neo-Classical School mean when they say there is a reverse causation between GDP and the money supply? How does that mean that the money supply can be a leading indicator even though they feel there is a neutrality of money?
- 4) (14 points) Answer EITHER Part A OR Part B.
 - A) Explain how imperfect competition can cause price rigidity in the Neo-Keynesian model.
 - B) Explain the Keynesian Liquidity Trap and why that may make monetary policy ineffective.
- 5) (16 points) Answer EITHER Part A OR Part B.
 - A) Draw the Phillips Curve diagram for an expected inflation rate of 2% and the country at full employment. Illustrate the effects of an increase in the money supply of 5%, but people changed their expectations to thinking that it would go up 7%. Explain why the curve(s) moved as drawn and how you found the new point.
 - B) Draw the supply and demand for the US\$ with the Japanese yen ¥. Illustrate the effects of a decrease in the interest rates in Japan. Explain why the curve(s) moved as drawn. Which currency depreciated? How can you tell?
- 6) (16 points) Answer ONE of the following parts.
 - A) Draw the diagram of the official exchange rate and the fundamental exchange rate for the USA with Mexico as the other country. Suppose the money supply was to the right of the equilibrium. What happens to move the money supply and exchange rate back to the equilibrium? Explain the economic reasons why that occurs.
 - B) I recently found out that a few years ago, the Fed started paying interest on bank deposits at the Fed. What would that do to our monetary base, money multiplier, and money supply? Explain your logic.
 - C) I believe that the People's Bank of China (their central bank) has reduced the required ratio six times this year including four times this semester. (It is now 17.5%.) What has that done to their monetary base, money multiplier, and money supply? Explain your logic.
- 7) (16 points) Answer EITHER Part A OR Part B.
 - A) Use the tab Q7A of the [Excel file](#) to forecast the Patriot's score through the rest of the season. Use the same value, same change, same percent change, six game moving average, and four game weighted moving average.
 - B) Use the tab Q7B of the [Excel file](#) to calculate the CPI with 2012 as a base year, using Laspeyres and Paasche methods then calculate the PCE. Also calculate inflation for all three methods.
- 8) (18 points) Answer EITHER Part A OR Part B.
 - A) The following table is taken from your supplemental textbook and is entitled, "Proportions of Occurrences in Which Trends of Various Magnitudes Involved Cyclical Reversals of Business Activity". This is the row for "Consumer Debt/Personal Income" Suppose that the debt to income ratio increased 2% in one month during a

recession. What is the probability that the recession is ending? State how you reached that conclusion. Is this a leading, lagging, or roughly coincident variable? Explain your logic.

Decreasing Trends During Cyclical Expansion Percentage Decrease Larger Than						Increasing Trends During Cyclical Contraction Percentage Increase Larger Than					
0.0	0.3	0.5	1.0	3.0	5.0	0.0	0.3	0.5	1.0	3.0	5.0
.20	.33	.43	.50	1.00	1.00	.30	.48	.56	.77	1.00	1.00

B) When we discussed qualities important for a variable to have to be a good indicator, we mentioned *currency* and *timing*. What do they mean and why are they both important?

9) (20 points) Both the Neo-Keynesian and the Neo-Classical models predict a variable wrong. For ONE of those schools, state which variable they get wrong. Use a graph to explain their logic as to which way the variable should change. How do they explain the contradiction? Explain their logic.

10) (28 points) Answer EITHER Part A OR Part B.

A) Use the data in the tab “Q10A” of the [Excel file](#) to forecast quantity of nuts as a function of the different prices, and income. Are your overall results good or not? Explain your answer. Check for possible multicollinearity 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 pounds of nuts you would expect to sell to a person with an income of \$1,200 if you charged \$4/lb of nuts, and \$8/lb of pears. Given the results, are pears and nuts substitutes, likely substitutes, likely unrelated, likely complements, or complements? Explain your logic.

B) Use the data in the sheet “Q10B” on the [Excel file](#) to run a regression to predict sales as a function of income and price. Are the overall results good or not? Explain your logic. Do the quick checks for heteroscedasticity and autocorrelation. Explain how you know whether or not you had each problem. **If there is only a problem with autocorrelation or find both problems**, then run a regression which would adjust for that problem. Explain what you did and why. **If there is only a problem with heteroscedasticity**, then do the formal F-test for it and explain what you did. What does that value tell you?

11) (34 points) Answer EITHER Part A OR Part B.

A) Use the data in the tab Q11A of the [Excel file](#) to forecast sales through the end of 2017. Also, seasonally adjusted sales for **all dates**. If their sales for 2017 were \$1600, then how much would they expect to sell in the third quarter (July) of 2017? Do all calculations in the Excel sheet. If you want to explain anything, then do it on the spreadsheet.

B) Suppose consumption is \$200 more than 90% of (average of this year’s disposable income and the previous two year’s disposable incomes). The tax rate is 1/3 of GDP. Investment is 30% of this year’s GDP. Government spending is \$600. Exports are \$400 and imports are 10% of this year’s GDP. Write these equations. Solve the equations for Y_t as a function of exogenous variables and lagged values of GDP. Show all work. What is the short-run government spending multiplier? Briefly state how you found it. If GDP had been \$3000 for several years, then use the tab Q11B on the [Excel file](#) to calculate the levels of GDP for the next 30 years. Plot the data for GDP on the Excel sheet making sure everything is labeled. What is the pattern of the graph? State how you reached that conclusion

12) (42 points) Answer EITHER Part A OR Part B.

A) Illustrate the effects of an unexpected increase in the money supply on the LRAS/SRAS/AD, IS/LM/FE, and real MS/real MD diagrams. Explain why the curve(s) moved as drawn. What happens to the price level, unemployment rate, interest rates, and GDP?

B) Illustrate the effects of an decrease in the income tax rate, on the LRAS/SRAS/AD, IS/LM/FE, and real MS/real MD diagrams. Assume a Neo-Keynesian model. Explain why the curve(s) moved as drawn. What happens to the price level, unemployment rate interest rates, and GDP?