Wilfrid W. Csaplar Jr. Business Cycles and Forecasting Review Sheet for Exam 3

This review sheet is intended to cover everything that could be on the exam; however, it is possible that I will have accidentally left something off. You are still responsible for everything in the chapters covered except anything that I explicitly say you are not responsible for. Therefore, if I left something off of this sheet, it can still be on the exam. There will be no multiple-choice questions. Most of the questions will be like the ones in the homework assignments, and possibly a few definition questions, but I am more likely to ask questions that make you use the definitions rather than recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session will probably be Monday, 11/03, at 3:30, in the computer room (I hope).

For the laboratories, be able to run regressions. Understand what *Adjusted* R^2*, Significance of F, coefficient, T-statistic, P-value, upper* and *lower 95%* mean. What are good values for those numbers? Be able to know when to eliminate a variable from a regression based upon those statistics. Know how to run a regression based on time. Be able to use those results to write an equation which will predict your *Y* variable. Be able to check for multi-colinearity using the correlation coefficients with a cutoff of 0.80, check for auto-correlation and heteroscedasticity using the residual plots. For the former two, be able to do the simple corrections of eliminating a variable or using a squared term respectively. Know the formal test for heteroscedasticity using the F-distribution.

Chapter 12: Understand the theory using the LRAS/SRAS/AD diagram which would result in a nice Short-Run Phillips Curve (SRPC). Understand what moves the Augmented SRPC and the LRPC. Note that the intersection point is only the point where we will be **if** we are at full employment. Therefore, if we do not have $\pi = \pi^e$, then the economy will not be at that point. The point the economy is at depends upon the relationship between π and π^e. What are the costs of unemployment? Understand both the *cultural* and the *hysteresis* explanations of what determines the natural rate of unemployment. The latter is the *insider-outsider* model. What can be done to reduce the natural rate of unemployment? What are the problems with anticipated inflation, unanticipated inflation, and hyperinflation? How can inflation be fought? What are the advantages and disadvantages of cold turkey versus gradualism? Why aren't wage and price controls a good idea? How can *tax-based income policies* (TIP) help reduce inflation? Why might they make the problem worse?

Chapter 13: Know how to interpret changes in the nominal exchange rate to determine if a currency has appreciated, depreciated, revalued, or devalued. Be able to calculate the real exchange rate. Hint: the exchange rate is the price of the $, so it is the other currency per dollar. When calculating the real exchange rate, make sure the units of currency cancel. So do not multiply C$/US$ by C$/Q because the C$ will not cancel. What should the nominal exchange rate be when using PPP? Ignore the J-Curve. Be able to use the supply and demand for foreign exchange to determine the nominal exchange rate. Hint: The reason for demanding a currency or supplying a currency is to buy something – goods and services or stocks and bonds – which are in a foreign currency. Therefore, most events will affect both countries in a similar manner. Thus, most events will move both supply and demand. I will only ask about changes in foreign or domestic values of the following variables: prices, interest rates, and GDP. How do changes in the exchange rate affect the IS/LM/FE diagram? You can use the book's explanation, or you can use the Keynesian Cross explanation. Understand how fiscal and monetary policies affect the IS/LM/FE diagram for a flexible exchange rate. Understand how our policies affect the foreign country. For the fixed exchange rate, understand how having an exchange rate set at the wrong level will cause the money supply to change. This will be using the figures on page 505 - 508 of the supply and demand for currency. For monetary policy with a fixed exchange rate, understand why the diagrams on page 509 and

510 take their shapes and why that means the country loses control of their money supply.

This is the non-graded assignment #7A that will be gone over with assignment #7.

1) (20 points each) Illustrate the following events on the supply and demand for the US$ compared to the Euro (€). Explain why the curve(s) moved as drawn.
A) The GDP of the USA increases.
B) The interest rates in Germany increase.

2) (20 points) Illustrate an appreciation of the currency on the IS/LM/FE diagram. Explain why the curves moved as drawn.

3) (20 points) Illustrate an increase in the money supply on the IS/LM/FE diagram. Explain why the curves moved as drawn.

4) (5 points) If the nominal exchange rate is £0.7/$, the price level in Great Britain is £140/Q_{GB}, and the price level in the USA is \$200/Q_{US}, then what is the real exchange rate? Show all work.

5) (15 points) If the government sets a fixed exchange rate at a high value, determine if the money supply will automatically increase or decrease. Explain the economics of this.