Wilfrid W. Csaplar Jr. Business Cycles and Forecasting Review Sheet for Exam 4 and Final

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 Thursday, 4/16.

For the laboratories, be able to **adjust data for seasonality**, estimate sales for a period given the annual sales, and be able to **forecast** sales into the future. These require calculating ***centered moving average, preliminary seasonal indicator, average seasonal indicator, revised seasonal factor, total seasonal factor, trend*** (using a regression), and ***normal***. In that order. The *normal* is what is used to forecast. Note, that I am likely to just ask you to seasonally adjust the sales, without telling you the steps like I did in the lab.

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**? What is 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 Pages 510 - 513 of the supply and demand for currency. For monetary policy with a fixed exchange rate, understand why the **diagrams on fundamental exchange rate and the peg,** take their shapes and why that means the country loses control of their money supply.

Chapter 14: What is a **central bank**? What does it do? Know the basics of what goes on the assets or liabilities and net worth sides of the **balance sheet** for a bank and for the **Fed**. How does the **money multiplier process** work? Warning, if you just write *multiplier*, then you are referring to the autonomous expenditure multiplier, a.k.a., the government spending multiplier, a.k.a., the investment multiplier. If you mean the money multiplier, you must write the word "money." Understand the formula for the money multiplier. Who are the **Board of Governors of the Federal Reserve System,** and the **FOMC**? How do the **Fed's tools** (instruments) affect the **money supply, monetary base, money multiplier**, and the **intermediate targets**? The book has a table which should help here. Be able to show monetary policy on IS/LM/FE diagram for both controlling MS and controlling r. Prove the Fed cannot control both the money supply and the interest rates with real MS/MD diagram.. What are the **lags** in monetary policy and what are the possible implications of it? Should we use **rules** or **discretion** for monetary policy? What are the advantages of each? Ignore the game theory. How can the central bank get credibility? Why is an independent central bank important?

Homework #9A to be reviewed with Homework #9.

1) (20 points) Use the data on this page https://www.federalreserve.gov/releases/h6/current/default.htm to calculate the money multiplier (MM), currency-deposit ratio (cu), and the actual reserve ratio (res). Show all work. There should be more than one way to calculate each number.

2) (15 points each) For each part, determine how the event affects the monetary base, money multiplier, and the money supply. Explain why they have those effects.
A) The Fed raises the target for the federal funds rate and raises the discount rate.
B) People keep less cash on hand.

3) (15 points) What are lags and why might they mean we do not want to do counter-cyclical monetary policy?

4) (15 points) Why do most macro-economists prefer rules to discretion? Explain their logic.

5) (20 points) Why can't the Fed control both interest rates and the money supply? Use a diagram in your answer.

Review sheet for the Final Exam.

When I write the final, I look to see what I did not ask about, and what were the major topics. Obviously, Chapter 15 will be on it. I write questions about those topics. I try to get the questions evenly distributed from all the tests. There will definitely be lab material.

Chapter 15: How do we calculate the government's **budget deficit**? What is the difference between a deficit and a **surplus**? What is the difference between a deficit and a **debt**? What are the **primary deficit** and the **full employment budget deficit**? How are they calculated and why are they important? What are the **automatic stabilizers** and how do they work? What is **government capital**? What is the difference between the **average tax rate** and the **marginal tax rate**? Which matters the most? How do we calculate total taxes paid? What are **distortions** and how do taxes cause them? How do governments finance their deficits? How fast is the growth rate of the **debt-GDP ratio**? Is the debt a burden for future generations? What is the problem with Social Security? What are the good and bad aspects of the possible solutions. Understand **Ricardian Equivalence** both with and without **inter-generational transfers**. Are its assumptions logical? What is s**eigniorage**? Why does it occur and what does it cause? Ignore real seigniorage.

Homework on the material after Exam #4.

1) (15 points) Explain seigniorage. Why might it be a good idea for some developing countries?

2) (15 points) What is Ricardian Equivalence? Why might it apply even if the current generation does not pay the debt?

3A) (15 points) Given the side-effects of taxes, would a head tax (everybody pays the same amount for their head) or an income tax be a better tax? Only examine them from the views of economic incentives, not from an equity point of view, nor from a total revenue point of view.
1B) (15 points) Using the same type of logic as in Part A, would a sales tax on food or a property tax be a better tax? Explain your logic.

4) (20 points) Explain why a high interest rate causes the debt-GDP ratio to grow. Does the equation for the growth rate of the debt-GDP ratio have the growth rate of real or nominal GDP in it? Why?