

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 Tuesday, 4/21.

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.

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 Pages 510 - 513 of the supply and demand for currency. For monetary policy with a fixed exchange rate, understand why the **diagrams on Pages 514 and 515** 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 table on Page 550 should help here. Be able to illustrate that on the IS/LM/FE 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?

This is the non-graded assignment #10A that will be gone over with assignment #10.

- 1) (20 points) Use the real MS/MD diagram to explain why the central bank cannot control both interest rates and the money supply at the same time.
- 2) (10 points) What is the advantage of using discretionary monetary policy over rules?
- 3) (15 points) If you were the head of the central bank and you had to use a rule, what rule would you use? Why would you use that rule?
- 4) (25 points) Why is it important for a central bank to have credibility? Explain your logic. What can they do to get credibility if they do not have it already? Explain how that will give them credibility.
- 5) (15 points) Explain lags may mean counter-cyclical monetary policy is counter-productive.
- 6) (15 points) Explain why a liquidity trap could render expansionary monetary policy impotent.

Review sheet for the Final Exam.

When I write the final, I look to see what I did not ask about (including Chapter 15 below), and what were the major topics. 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 after Exam #4: 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? Understand **Ricardian Equivalence** both with and without **inter-generational transfers**. Are its assumptions logical? What is **seigniorage**? Why does it occur and what does it cause? Ignore real seigniorage.

- 1) (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?
- 2) (20 points) Explain seigniorage. Why might it be a good idea for some developing countries?
- 3) (20 points) What is Ricardian Equivalence? Why might it apply even if the current generation does not pay the debt?
- 4A) (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.
- 4B) (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.

5) (20 points) What are the automatic stabilizers? Why are they called that? How do they work?

6) (15 points) Explain the difference between deficit and debt?

7) (25 points) Suppose the government spends \$500 per year, makes transfers of \$450 - 1% of GDP per year, and pays \$110 of interest per year. The tax revenue is 20% of GDP. If GDP is \$4500, then how much is the government deficit or surplus. Suppose the full-employment level GDP is \$5500. How much is the full-employment deficit or surplus? What is the primary deficit or surplus? Show all calculations. Is the government doing good fiscal policy? Explain your logic.

8) (10 points) Do marginal or average tax rates have the effect of changing behavior? Explain your logic.