

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 be at a time to be determined in class, most likely Wednesday, March 16th.

Chapter 6: How do we calculate **marginal tax rate**, **average tax rate**, and **total taxes paid**? What is meant by **proportional**, **progressive**, and **regressive taxes**? What is the **tax base**? How can increasing a tax result in less revenue? What are **sales**, **excise**, **ad valorem**, and **specific (unit) taxes**? Who pays the tax? What is the **Laffer Curve**? The book actually draws it in Chapter 13. What are **Medicare** and **Social Security**? What are their effects on the economy? What is the problem with Social Security? What are some of the proposals for solving the problem? What are the pluses and minus of using each “solution”? I am most likely to give you a proposal for a solution and ask you how it would work, and whether or not you would implement my proposal.

Chapter 7: What are, and how do we calculate, the **unemployment rate**, **labor force participation rate**, and **inflation rate**? What are **stocks** and **flows**? How do they relate to unemployment rates? Know how to classify people by the reason they are unemployed, i.e., laid off, job leaver, etc. Know how to tell who is in which category of unemployment, i.e., **frictional**, **structural**, **seasonal**, and **cyclical**. What is the **natural rate of unemployment**, a.k.a., **full employment unemployment rate**? How do **discouraged workers** and **underemployment** complicate the unemployment picture? What are the other costs of unemployment besides lowered production? How do we calculate **CPI**, **PPI**, **PCE Index** and **GDP deflator**. I won't ask you to do the calculation, but you may have to describe how it is done. Know how to calculate inflation from those numbers. Why does it matter if inflation is anticipated or unanticipated? What are the **costs of unanticipated and anticipated inflation**? (I added **shoe leather costs to menu costs**.) Note that if inflation is expected to be 10% and it ends up being 7%, we had unexpected **deflation** of 3% and that hurts borrowers and any others paying a fixed amount but helps those receiving the money. Know what an **expansion (a.k.a. boom)**, **contraction**, **recession**, **depression**, **trough**, and **peak** are. What is a **leading indicator**?

Chapter 8: What do we mean by **product markets** and **factor markets**? Know what is calculated in **GDP** and what is not. That method is the **expenditure method (C+I+G+X)**. Remember that “X” can be negative and that *you are likely to get the definition of “I” wrong. Stocks and bonds are not investment.* Ignore inventory investment. It is very small and confusing. Why should GDP calculated this way equal the **sum of the incomes and the sum of the value added**? What are some problems with trying to calculate GDP? What are some of the limitations in our understanding the meaning of different levels? How do we calculate GDI, NDP, NI, PI, and DPI? What is the difference between **real** and **nominal GDP**? Ignore the chain-weighted measure for real GDP. How do we compare GDP across countries?

Chapter 9: What is **economic growth**? What are the negative effects of economic growth? What is the problem of using this as a measure of welfare? What causes GDP per capita to grow? Why do small changes in the growth of GDP matter? Why should you start saving for retirement now? What is **labor productivity** and what changes it? Why is **saving** so important to growth? What is **human capital**?

What are the advantages and disadvantages of **patents**? Why do open economies grow faster? How does population growth affect development? Why are property rights important for growth? The **four keys to development** on Page 215 will help you to understand parts of the chapter. *A good webpage with advice on how to save is https://getpocket.com/explore/item/the-best-advice-for-saving-as-much-as-you-can?utm_source=pocket-newtab.*

Most of Chapter 12: Note we will not be making the Assumption #4 on Page 265. We will assume an open economy. What are C, I, G, and X? What determines them? Know what moves the flatter line on the **45° diagram, a.k.a. the Keynesian Cross diagram**. *We only need the $E = Y$ line and $C + I + G + X$ line and to move it. The other lines, like the C and the $C + I$ lines were just to help you understand the main line. Ignore the savings line and the $S = I$ derivation of the model. It is mathematically the same as what we did and the book does, but it is more complicated to understand.* What are the **MPC, MPS, APC, and APS**? *Note that even though our model assumes the MPC is the same for rich and poor, it also concludes that the rich will have a lower APC than the poor. It is easier to notice a person's APC than MPC.* Know what changes C, I, G, and X. Why does consumption depend upon wealth, although not much? Why does investment depend upon interest rates? Ignore the planned versus unplanned investment. What is a lump-sum tax and how does it affect the 45° diagram? What determines net exports?

Homework #6A to be gone over with Homework #6.

- 1) (25 points) Suppose that consumers bought \$1000 worth of goods. Firms spent \$400 on new equipment. The government spent \$500 on Congressional salaries. We imported \$280 worth of goods and exported \$250 worth of goods. The buildings had \$40 of wear and tear. Businesses paid \$50 in sales tax and \$10 in income tax. They kept \$100 in retained earnings. The government paid out \$200 in Social Security payments. People paid \$190 in income taxes. Calculate GDP, NDP, NNP, NI, PI, and DPI. Write in words what you are adding and subtracting. Show all calculations. If you need a number which I did not give you, assume it is zero.
- 2) (10 points) To retire and keep your standard of living, you need to save 20 times your annual income. Suppose your retirement fund earns 6% interest and if you earn \$50,000/year. If you save for 40 years, you need to save \$502.14/month. If you save for 30 years, you need to save \$1070.05/month. There are two reasons why the extra 10 years greatly reduces how much you have to save. What are the two reasons? Explain your logic. (Note that this means you should start saving for retirement today.)
- 3) (10 points) What is meant by *creative destruction*? How does help an economy to grow?
- 4) (10 points) What is meant by *limiting protectionism*? How does help an economy to grow?
- 5) (5 points) If your bank account pays 2% interest, how long will it take to double? If your credit card charges 24% interest, how long will it take to double assuming no charges for non-payment? Show all work.
- 6) (20 points) Draw the 45° diagram, a.k.a. Keynesian Cross diagram. Illustrate the effects of an increase in the taxes. Explain why the curve(s) moved as drawn.
- 7) (20 points) Draw the 45° diagram, a.k.a. Keynesian Cross diagram. Illustrate the effects of an increase in the MPC. Explain why the curve(s) moved as drawn.