

Review for first challenge
Eco 212

The format of the challenge is 5-6 short answer questions (1-2 sentences) and 2 longer questions (usually requiring a graph, some math, and/or a longer explanation). The challenge is closed book. All questions come from the class notes. Also study the first homework, chapters 2,4-8, and this review sheet.

Some formulas will be given (students should also know how to calculate percentages, including change in GDP, inflation, etc.):

$$\text{Value added} = \text{Revenues} - \text{cost of raw materials} =$$

$$\text{Income} = \text{wages} + \text{profits} = \text{expenditures} = C + I + G + X - M$$

$$\text{CPI} = \frac{p_{1,t} \cdot q_{1,b} + \dots + p_{n,t} \cdot q_{n,b}}{p_{1,b} \cdot q_{1,b} + \dots + p_{n,b} \cdot q_{n,b}} \cdot 100, \quad \text{GDP Deflator} = \frac{p_{1,t} \cdot q_{1,t} + \dots + p_{n,t} \cdot q_{n,t}}{p_{1,b} \cdot q_{1,t} + \dots + p_{n,b} \cdot q_{n,t}} \cdot 100$$

$$\text{NGDP} = p_{1,t} \cdot q_{1,t} + \dots + p_{n,t} \cdot q_{n,t}, \quad \text{GDP} = p_{1,b} \cdot q_{1,t} + \dots + p_{n,b} \cdot q_{n,t}$$

$$\text{GDP} = \frac{\text{NGDP}}{\frac{\text{GDP Deflator}}{100}}, \quad \text{unemployment rate} = \frac{\text{unemployed}}{\text{labor force}}$$

$$\text{participation rate} = \frac{\text{labor force}}{\text{working age pop.}}, \quad \text{Productivity} = \frac{\text{GDP}}{N}$$

$$S = (Y - C - T) + (T - G) = I + X - M, \quad \text{real rate} = \text{nominal rate} - \text{inflation rate}$$

The questions on the next page are over the material since the last homework.

Short answer questions (1-2 sentences)

Question 1.

Suppose:

GDP	labor force	employed	hours per employee	Working age population
\$10 Trillion (\$10,000,000 million)	125 Million	100 million	200	200 million

Calculate the participation rate, GDP per working age person, the unemployment rate, and productivity.

Question 2.

Carefully explain the difference between real and nominal interest rates. Define the tbill rate. Is the tbill rate a real or nominal rate?

Question 3.

France recently cut the work week from 40 hours per week to 35 hours per week. GDP was relatively unchanged after this change. What happened to productivity? Give an intuitive explanation as to what likely happened.

Question 4.

Graph the market for loans. Show the effect of a rise in government spending, holding income and consumption constant. What is the effect (if any) on interest rates, national savings, public savings, and private savings? Explain your answer.

Question 5.

Robert Kennedy once said “[Real Gross Domestic Product] does not allow for the health of our children, the quality of their education, or the joy of their play.... It measures everything, in short, except that which makes life worthwhile....” How do macroeconomists respond to this criticism?

Longer Questions

Question 6.

Graph the labor market when insider laws create a wage floor above the market wage. Carefully label on the graph the employed, unemployed and not participating. Show on the

graph the effect of a recession on unemployment. Explain how insider laws create wage floors and thus unemployment.