Problem Set #3 – ECON 3311, Fall 2024

Due: 10/17, at 11:59pm (via eLearning)

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1. **What is the equation representing the relationship between fiscal policy and inflation? Why is it the case that decreases in tax revenue may end up leading to inflation? Briefly explain.**

2. **We talked in class about how potential GDP represents the long-run trend of GDP. Basically, this represents the level of GDP if the country is operating at its long-run, sustainable potential.**

   a. **What happens if potential output is calculated as being much higher than it actually is? Briefly explain.**

   b. **What happens if it is calculated as being much lower than it actually is?**

3. **Suppose you take out a loan from a bank at a certain nominal interest rate. If the rate of inflation decreases, who benefits? You, the bank, or does no one benefit? When answering, you can assume the inflation lowered and become negative. Briefly explain.**
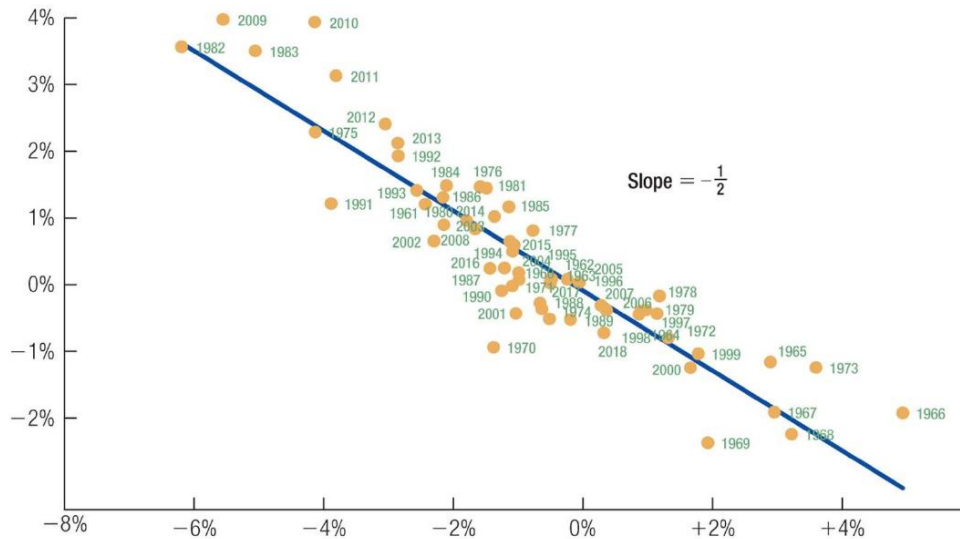
4. **The decrease in housing prices was one of the leading causes of the depth of the Great Recession.**

   a. **How did the increase in interest rates by the Federal Reserve (in order to fight inflation) eventually lead to more people losing their homes? Briefly explain.**

   b. **How did the fact that a larger proportion of loans were 'subprime' loans lead to magnifying the severity of the situation outlined in part 'a'? Recall that subprime loans represent loans being made to people with lower credit scores, higher debt, lower income, etc.**

5. **Suppose that GDP grew at 3% last year. Does this mean that $\tilde{Y}$ is 3%? Briefly explain using the formula for how $\tilde{Y}$ is calculated.**

6. **The following graph shows the relationship between a measure of unemployment (y-axis) and short-run output (x-axis).**

Source: FRED. U.S. Department of Commerce.
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  a. **How is it possible that there are negative values on the x-axis and y-axis? Briefly explain.**

  b. **If Okun's law represents the relationship between unemployment and output, why are there years where the values are not on the line representing Okun's law? Is the law wrong? Briefly explain.**