Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Turn in the Excel file via Canvas. Place your name on an otherwise blank page of the Excel file. Failure to type this assignment will cost you 10 points. If you use doublesided printing or print on the back of scrap paper, I will give you one additional point.

All questions except for Question \#1 should be done before class.

1) Use the page on the Excel Sheet (Lab3), tab "Lab" to answer this question.
A) (15 points) Calculate the Laspeyres CPI for each year using every year as a base year. In other words, you will have 36 entries - six years (2011-2016) with each of the six base years.
B) ( 5 points) Calculate the inflation for each of the five years which it can be calculated for.
C) (10 points) Compare your results in Part B for the base years of 2012 and 2015. Why do you think they have such different results? Explain your logic in a box typed in on the Excel file. D) (5 points) Calculate the Paasche price index for each year with 2013 as the base year.

Calculate the inflation rate using this data.
E) (5 points) What is the PCE for every year using 2013 as the base year? Calculate the inflation rate for every year.
2) (20 points) Use the MS/MD diagram to prove that the central bank cannot control both the money supply and the interest rates.
3) (10 points) Explain the difference between intermediate targets and the goals of the Fed.
4) (15 points) Give an example of a rule the central bank might use and how it would stabilize the economy. Do you think a rule like that is better than discretion? Explain your logic.
5) (15 points) Explain the difference between the budget deficit and the full-employment budget deficit. Which do you think is more important? Explain your logic.

Here is some information I dug up for ECON 202 last week. I think you might find it interesting. According to the Treasury Department the gross public debt was $\$ 30,316,415,445,123.62$ on 2022/3/28. https://fiscaldata.treasury.gov/datasets/debt-to-the-penny/debt-to-the-penny According to the Census Bureau's population clock at 2:14 on 2022/3/30, http://www.census.gov/popclock/, the population was about $332,592,813$ people. That means the debt is $\$ 91,151.75$ per person. According to NASA, the solar system is $4,500,000,000$ years old. https://solarsystem.nasa.gov/solar-system/our-solar-system/in-depth/ Therefore, if you earned 1 penny every 47 seconds (without earning interest) from the start of the solar system, you would not quite have enough to pay the debt. According to the Bureau of Economic Analysis, the GDP for the 12 months which ended December $31^{\text {st }}$, is estimated to be $\$ 24.00$ trillion. This means the debt-to-GDP ratio is 1.263 . Therefore, the government owes $126.3 \%$ of the entire GDP. The GDP data was gotten from https://www.bea.gov/news/2022/gross-domestic-product-third-estimate-corporate-profits-and-gdp-industry-fourth-quarter

