

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. The Excel file will be handed in via Canvas. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (12 points) Answer EITHER Part A OR Part B.

A) Explain why many economists feel that the central bank should use rules not discretion when it comes to monetary policy.

B) Why is credibility important for a central bank to do monetary policy? How can the central bank get credibility? Explain how that will give them credibility.

2) (12 points) Use the tab "Forecast" on [exam4.xlsx](#) to forecast the winning margin for the next 7 games. (These are the actual winning margins for Bethany College's women's lacrosse team this season. They have only two games left, but pretend they have 7 more.)

3) (12 points) Answer EITHER Part A OR Part B.

A) Explain why a faster growing GDP will result in a smaller debt-to-GDP ratio.

B) 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.

4) (14 points) Answer EITHER Part A OR Part B.

A) State Ricardian Equivalence. We gave several reasons why it might not hold. Explain ONE of those reasons. Give enough details so that I know why that would prevent Ricardian Equivalence from holding.

B) Explain what seigniorage is. Why is that good for a developing country to do some of? Too much of it means the government actually gets less "revenue." Explain why that is true.

5) (16 points) Answer EITHER Part A OR Part B.

A) Use the real MS/MD diagram to prove that the Fed cannot control both the money supply and interest rates.

B) Normally, we assume the Fed controls the money supply. However, they could control the interest rates. Draw the IS/LM/FE diagram showing that the Fed is controlling interest rates. Explain why the diagram looks as drawn.

6) (16 points) Answer EITHER Part A OR Part B.

A) 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.

B) Suppose the USA had an unemployment rate of 7%, a deficit of 1% of GDP, a full-employment surplus of 2% of GDP, and a primary surplus of ½% of GDP. Do you think that the government described is doing good fiscal policy? Explain your logic.

7) (18 points) Use the tab "CPI" on [exam4.xlsx](#) to calculate the CPI for all years using just 2020 as the base year. Calculate the Paasche Price Index and PCE Index for all years with 2020 as the base year. Calculate all inflation rates which can be calculated. Looking only at the data in the file, was 2020 a good choice of base year? Explain your logic.