

Economics 101b; Fall 2000; Problem Set 5

Due in class October 12

1. Economists say that a government can raise real revenue--real power to buy goods and services--through the "inflation tax." Who is it that pays this inflation tax? How is it that the government collects it?
2. Suppose that real GDP is \$10,000 billion, the velocity of money is 5, and the money stock is \$2,500 billion. What is the price level?
3. Suppose that the rate of labor force growth is 3% per year but the efficiency of labor is stable, and the economy is on its steady state growth path. Suppose also that the rate of growth of the nominal money stock is 10% per year. Do you think that it is likely that the inflation rate is less than 5% per year? Why or why not?
4. What would the Federal Reserve have to do if it wanted to raise the monetary base today by \$10 billion? What do you guess would happen to the price of short-term government bonds if the Federal Reserve did this?
5. Suppose that the economy is on its steady-state growth path, the rate of increase of the labor force is 2% per year, the rate of increase of the efficiency of labor is 1% per year, the velocity of money is rising at 2% per year, the rate of growth of the money stock is 10% per year, and the real interest rate is 4% per year. What is the nominal interest rate?
6. Do you think that unspent balances on credit cards--the difference between what you currently owe on your credit card and the limit that the credit card company allows you--should be counted as "money"? Why or why not?
7. In the third quarter of 1998 nominal GDP was \$8,574 billion. The monetary base H was \$494 billion; M1 was \$1,072 billion; M2 was \$4,210 billion. Calculate the velocities of the monetary base, of M1, and of M2.
8. Suppose that you were told that the rate of inflation was about to decline significantly over the next decade. Would you expect the velocity of money to rise unusually fast, behave normally, or fall over the course of that subsequent decade?