Macroeconomics: Assignment 2

(Deadline: at the beginning of Lecture 3)

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1. Readings: Look at the newspapers and magazines for the past few weeks. Are there any discussions about the monetary policies or inflation rate? How do you interpret these discussions?
2. Explain how each of the following events affects the monetary base, the money multiplier, and the money supply.
   a) The Federal Reserve buys bonds in an open-market operation.
   b) The Fed increases the interest rate it pays banks for holding reserves.
   c) The Fed reduces its lending to banks through its Term Auction Facility.
   d) Rumors about a computer virus attack on ATMs increase the amount of money people hold as currency rather than demand deposits.
   e) The Fed flies a helicopter over 5th Avenue in New York City and drops newly printed $100 bills.
3. An economy has a monetary base of 1,000 $1 bills. Calculate the money supply in scenarios (a)–(d) and then answer part (e).
   a) All money is held as currency.
   b) All money is held as demand deposits. Banks hold 100 percent of deposits as reserves.
   c) All money is held as demand deposits. banks hold 20 percent of deposits as reserves.
   d) People hold equal amounts of currency and demand deposits. Banks hold 20 percent of deposits as reserves.
   e) The central banks decides to increase the money supply by 10 percent. In each of the four scenarios, how much should it increase the monetary base?
4. Suppose a country has a money demand function $(\frac{M}{P})^d = kY$, where k is a constant parameter. The money supply grows by 12 percent per year, and the real income grows by 4 percent per year.
   a) What is the average inflation rate.
   b) How would inflation be different if real income growth were higher? Explain.

c) How do you interpret the parameter k? what is its relationship to the velocity of money?

d) Suppose, instead of a constant money demand function, the velocity of money in this economy was growing steadily because of financial innovation. How would that affect the inflation rate? Explain.