Econ 522: Intermediate Macroeconomics, Fall 2017

Chapters 4 & 5 Monetary System and Inflation Practice Problems

1. *Multiple Choice*. Which of the following most accurately describes the level of aggregate excess bank reserves in the U.S. over the last decade?
   - A. initially it was lower than it had been previously, but in the last few years it increased to about what it was before 2007.
   - B. substantially lower than it was prior to 2007.
   - C. substantially higher than it was prior to 2007.
   - D. similar to what it was during the early 90s recession.

2. *Multiple Choice*. Which of the following most accurately describes the federal funds rate in the U.S. over the last decade?
   - A. initially it was lower than it had been previously, but in the last few years it increased back to what it had been on average before 2007.
   - B. substantially lower than it had been previously.
   - C. substantially higher than it had been previously.
   - D. similar to what it was during the early 80s recession.

3. What does 'monetary policy' refer to and who carries out monetary policy in the U.S.? Identify and describe tools used to carrying out monetary policy?

4. Explain how each of the following events affects the money supply, and whether, holding all else constant and according to the classical model theory, each event would be expected to increase or decrease inflation in the long run.
   - (a) The Fed buys Treasury bonds in an open-market operation.
   - (b) The Fed increases the target federal funds rate.
   - (c) The Fed reduces its asset holdings by cutting back on security repurchases.

5. Write out and explain the quantity equation. Indicate whether the version you have written is in level or growth rate form.

6. If inflation rises from 6 to 8 percent, what happens to real and nominal interest rates according the the Fisher effect? Also, what is the Fisher effect?

7. In a given country, the velocity of money is constant. Real GDP grows by 5 percent per year, the money stock grows by 14 percent per year, and the nominal interest rate is 11 percent. What is the real interest rate?

8. Suppose a country has a money demand function $(M/P)^d = kY$, where k is a constant parameter. The money supply grows by 12 percent per year, and 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.