

**Homework Assignment 13. Doesn't have to be turned in.**

1. Suppose that the currency-to-deposits ratio is 0.3, the required reserve ratio is 0.1, and the excess reserves ratio is 0.03. Suppose that the Fed buys \$1 million worth of securities from the First National Bank. Describe in detail the process of deposit creation (provide the values of the first three deposits created as a result of this purchase of securities by the Fed). Compute the money (M1) multiplier?
2. Assume that the Fed predicts that the following demand for reserves on the federal funds market:  $R^D = 1000 - 100 \cdot i$ , where  $R^D$  is the quantity of reserves demanded (in billions of dollars) and  $i$  is the current federal funds rate. Fed's target federal funds rate is 5%. Current supply of reserves is \$550 billion. Explain using a graph what the Fed has to do to achieve its target federal funds rate?
3. Explain how the Fed could limit the fluctuations in the federal funds interest rate?