

**Economics s350k**  
**Summer 2014**  
**Midterm Exam**

**Answer each of the following questions (20 points each)**

1. (a) Suppose that there are 10 individuals, each with \$10,000 in savings that they would like to lend. Suppose there are also 100 different people who want to take out \$1,000 loans. Assuming an expected default rate of 10%, use this example to show how pooling risk through financial intermediation can increase the efficiency of financial markets. (b) Besides pooling risk, pooling small deposits, and pooling over time, what else do financial intermediaries do to increase the efficiency of financial markets?

[Told them to assume interest rate on loans is 20%.]

2. (a) Describe the structure and function of the Board of Governors of the Federal Reserve System. (b) Why does the chair of the Fed have so much power over monetary policy?

3. (a) Suppose that the Fed injects \$1,000 in reserves into the banking system. Assuming that the required reserve ratio is 10% and that both excess reserves and currency holdings are zero, use t-accounts to illustrate the multiple deposit creation process. Use this result to obtain the simple deposit multiplier. (b) Explain intuitively how the multiplier changes if banks hold excess reserves.

[Told them to assume the Fed sells a \$1,000 T-Bill (or security) if it makes it easier.]

4. (a) Explain why the discount rate and interest the Fed pays on reserves provide a ceiling and a floor for variation in the federal funds rate. (b) Use the supply and demand model for bank reserves to explain and illustrate the effects of an open market operation to buy bonds. Does this necessarily change the ff rate? Explain.

5. (a) Describe the liquidity provisions the Fed put in place during the Great Recession. Did they work? (b) What are the potential channels through which quantitative easing can stimulate the economy?