ECON2020

Recitation 9

1. Money multiplier and T-tables
   a. Assume that the economy operates under a 100% reserve banking structure. Draw out Bank 0's T-table if the bank receives a $100 deposit from a consumer!

Bank 0

Assets	Liabilities
Reserves: $100	Deposit: $100

   b. Assume that the economy operates under a fractional reserve banking structure with a required reserve ratio of 10%. Draw out the T-tables of the Fed and Bank 1 when Bank 1 receives a deposit of $100!

FED

A	L
Bonds: 10	B1 Reserves: 10

Bank 1

A	L
Reserves: 10	Deposit: 100
Loans: 90	

   c. What happens when Bank 1 loans out its assets that exceed the required reserves to a consumer that deposits the loan in Bank 2? Illustrate it by drawing out the T-tables of the Fed, Bank 1, and Bank 2?

FED

A	L
Bonds: 19	B1 Reserves: 10
	B2 Reserves: 9

Bank 1

A	L
Reserves: 10	Deposit: 100
Loans: 90	

Bank 2

A	L
Reserves: 9	Deposit: 90
Loans: 81	

   d. All together how much money is created in the economy from the original $100 deposit to Bank 1? Use the money multiplier!

$MM = \frac{1}{10\%} = 10$ $\quad 100 \times 10 = \$1000$

   e. Assume that the Fed lowers the required reserve ratio! What was R lowered to if a $1000 deposit creates $20,000 of new money in the economy?

$1000 \times \frac{1}{R} = 20000$

$R = 5\%$

Based on the T-tables, you should know that when FED gets the reserves from commercial banks, they can use the money to buy bonds from the market. That's called open market purchase. If FED sells some government bonds to commercial banks or other financial institutions, then it's an open market sale.

And when FED makes an open market purchase, the money supply increases; when Fed makes an open market sale, money supply decreases.