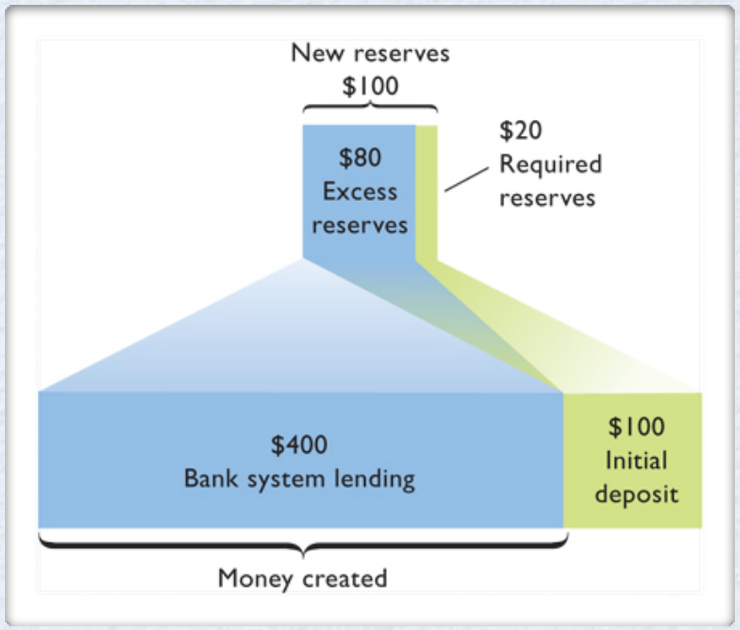
CHAPTER 20

The Monetary Multiplier

- **Monetary multiplier (m) is the reciprocal of the required reserve ratio (R)**
- **m = 1/R**
- **m** - represents the maximum amount of new checkable-deposit money that can be created by a single dollar of excess reserves given the value of R
- Multiplying excess reserves (**E**) by m, we can find the maximum amount of new checkable deposit money, **D**, that can be created by the banking system
- **D = E * m**
- **Example: R** = 0.2, E = $80
- **m** = 1/R = 1/0.2 = **5**
- **D** = E * m = $80 x 5 = **$400**
- Total money created = $500 ($100 + $400)



Interest Rates

- **The Demand for Money**
  - **Transactions Demand (D_t)** - the demand for money as a medium of exchange. The transaction demand for money varies directly with nominal GDP
  - **Asset Demand (D_a)** - holding money as a store of value. The amount of money demanded a an asset varies inversely with the rate of interest (which is the opportunity cost of holding money as an asset)
  - **Total Money Demand** - found be adding horizontally asset demand and transaction demand, $D_m = D_a + D_t$ A **change in the nominal GDP**, working through the transactions demand for money, **will shift the total money demand curve**.
  - **Example:** nominal GDP increases from $300B to $450B, V= 3
  - D_t = will shift from $100B to **$150B** ($450B/3)
  - D_m = will **shift to the right** by **$50B**

Interest Rates

The Equilibrium Interest Rate

- **S_m = Supply of money**
- **The demand and supply of money will determine the equilibrium interest rate**
- An increase in the supply of money will lower the equilibrium level of interest rate; a decrease in the supply of money will increase the equilibrium level of interest rate