

# *Chapter 10*

## *Homework Assignment*

1. The central bank of the fictitious country "Alpha" raises bank reserves by \$100. What effect will the increase in bank reserves have on the money supply in each of the following situations? Explain in each case.
  - a. The banking system is a 100% reserve banking system.
  - b. The banking system is a fractional reserve banking system with a desired reserve deposit ratio of .25.
  - c. The banking system is a fractional reserve banking system with a desired reserve deposit ratio of .1
- 3.a. What are the three tools the Fed can use to change the money supply?
- b. What would the Fed do with each tool if it wanted to increase the money supply?

### **Key**

1. The money supply will increase by only the \$100 since banks can not loan out from deposits (they must keep 100% of the deposits on reserve).
  - b. The money multiplier is  $1/.25$ , or 4 so the \$100 increase in reserves increases the money supply by  $\$100 \times 4$  or \$400.
  - c. The money multiplier is  $1/.1$ , or 10 so the \$100 increase in reserves increases the money supply by  $\$100 \times 10$  or \$1000.
- 2.a. Open market operations, the reserve requirement, and discount window lending.
- b. Make open market purchases, lower the reserve requirement, lower the discount rate to increase discount window lending.