

- 1 Suppose the required reserve ratio is 2%, banks hold an extra 3% of deposits in excess reserves, and consumers hold currency balances that are about 10% of what they hold in deposits in banks. Suppose the Fed makes an open market sale of \$150 billion of government bonds.
- A Compute the impact on the monetary base.
  - B Compute the impact on the M1 money supply.
  - C Compute the impact on the amount of deposits held in the banking sector.
  - D Compute the impact on required reserves, excess reserves, and total reserves held by banks.

- 2 Suppose the monetary base is \$800 billion, the required reserve ratio is 5%, banks do not hold any excess reserves, and consumers hold currency balances that are about 3% of what they hold in deposits in banks. Suppose uncertainty increases in the banking sector regarding consumer default and depositors needs causing them to increase excess reserves to 10%.
- A Compute M1 money supply before and after the change in excess reserves.
  - B Compute the amount of deposits held in the banking sector before and after the change in excess reserves.
  - C Compute the amount of required reserves, excess reserves, and total reserves before and after the change in excess reserves.

- 3 Suppose an improvement in computer financial technology causes consumers to decrease the amount of money they hold in currency from 5% of the amount they hold in deposits to 1%. The monetary base is \$650 million, the required reserve ratio is 3% and banks hold an extra 2% of deposits in excess reserves.
- A Compute the M1 money supply before and after the change in currency holdings.
  - B Compute the amount of deposits held in the banking sector before and after the change in currency holdings.
  - C Compute the amount of required reserves, excess reserves, and total reserves before and after the change in currency holdings.