SECTION 11.4 THE MONEY MULTIPLIER

- Banks can create money (demand deposits) by making loans, and the monetary expansion of an individual bank is limited to its excess reserves. While this is true, it ignores the further effects of a new loan and the accompanying expansion in the stock of money. New loans create new money directly, but they also create excess reserves in other banks, which leads to still further increases in both loans and the stock of money, increasing purchases of goods and services in the process. This is the multiple expansion effect, where a given volume of bank reserves creates a multiplied amount of money.
- The following formula can be used to measure the total maximum potential impact on the supply of money: Potential money creation = Initial deposit × Money multiplier. The **money multiplier** is simply 1 divided by the reserve ratio; it is the amount of money that the banking system generates with each dollar of reserves.

Exhibit 1: *The Multiple Expansion Process*

- The higher the desired reserve ratio, the smaller the banking multiplier. Thus, a desired reserve ratio of 25 percent, or one-fourth, means a banking multiplier of 4. Likewise, a desired reserve ratio of 10 percent, or one-tenth, means a banking multiplier of 10. Using the money multiplier, we can calculate the total impact of any initial deposit on the amount of new money that can be created as a result.
- "Potential demand deposit creation" describes the impact of creating loans and deposits out of excess reserves. Why "potential"? Because it is possible that some banks will choose not to lend all of their excess reserves. Some banks may simply be extremely conservative and keep some extra newly acquired cash assets in that form. When that happens, the chain reaction effect is reduced by the amount of excess reserves not loaned out. Moreover, some borrowers may not spend all their newly acquired bank deposits, or they may wait a considerable period of time before doing so. Others may put their borrowed funds into time deposits rather than chequable deposits, which would reduce the M1 expansion process but not the M2+ money expansion process. Still others may choose to keep some of their loans as currency in their pockets.