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# Money and Banking



Dave Anderson

# LEARNING OBJECTIVES

1. Identify the functions, types, and characteristics of money
2. Discuss the time value of money
3. Describe the M1 and M2 measures of the money supply
4. Explain the various types of banks and thrifts and what happens when they fail
5. Describe the money creation process

# THE FUNCTIONS OF MONEY

- **Medium of exchange**—something that is widely accepted as payment for goods and services.
- **Store of value**—something that can be used to make purchases in the future.
- **Unit of account**—a standard measure for prices and economic comparisons.

# THE FUNCTIONS OF MONEY

In the absence of money, you would have to barter.

- **Barter**—the exchange of goods and services for other goods and services.

Note: For bartering to work, there must be a double coincidence of wants. The seller must have what the buyer wants, and the buyer must have what the seller wants.

# WHAT MAKES SOMETHING MONEY?

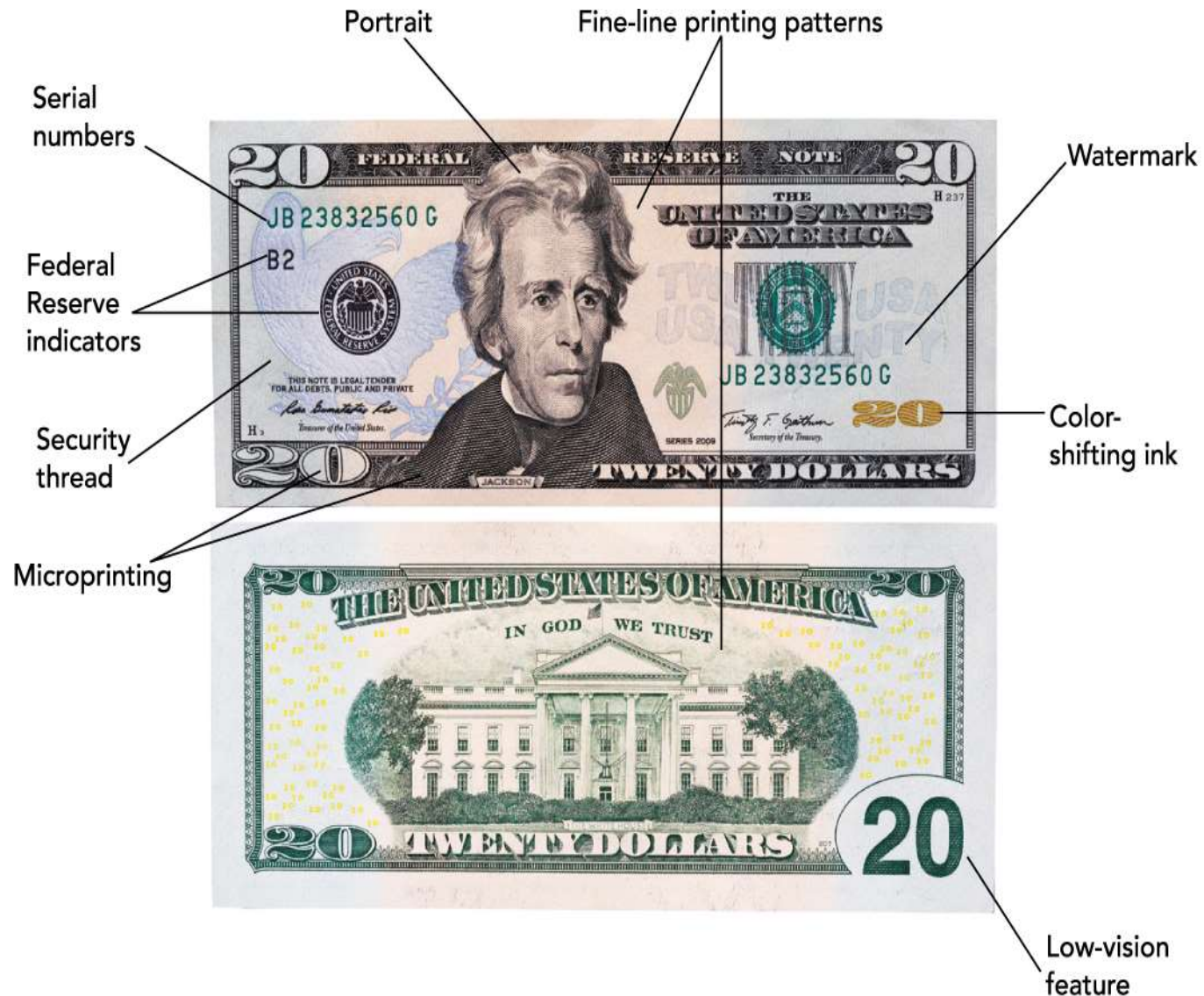
- **Money**—anything that is generally accepted in exchange for goods and services.
- **Currency**—bills and coins used as money.





# IDEAL CHARACTERISTICS OF MONEY

- Durable
- Portable
- Uniform
- In limited supply
- Divisible



# TYPES OF MONEY PART I

- Commodity money
- Paper money
- Fiat money
- Digital money



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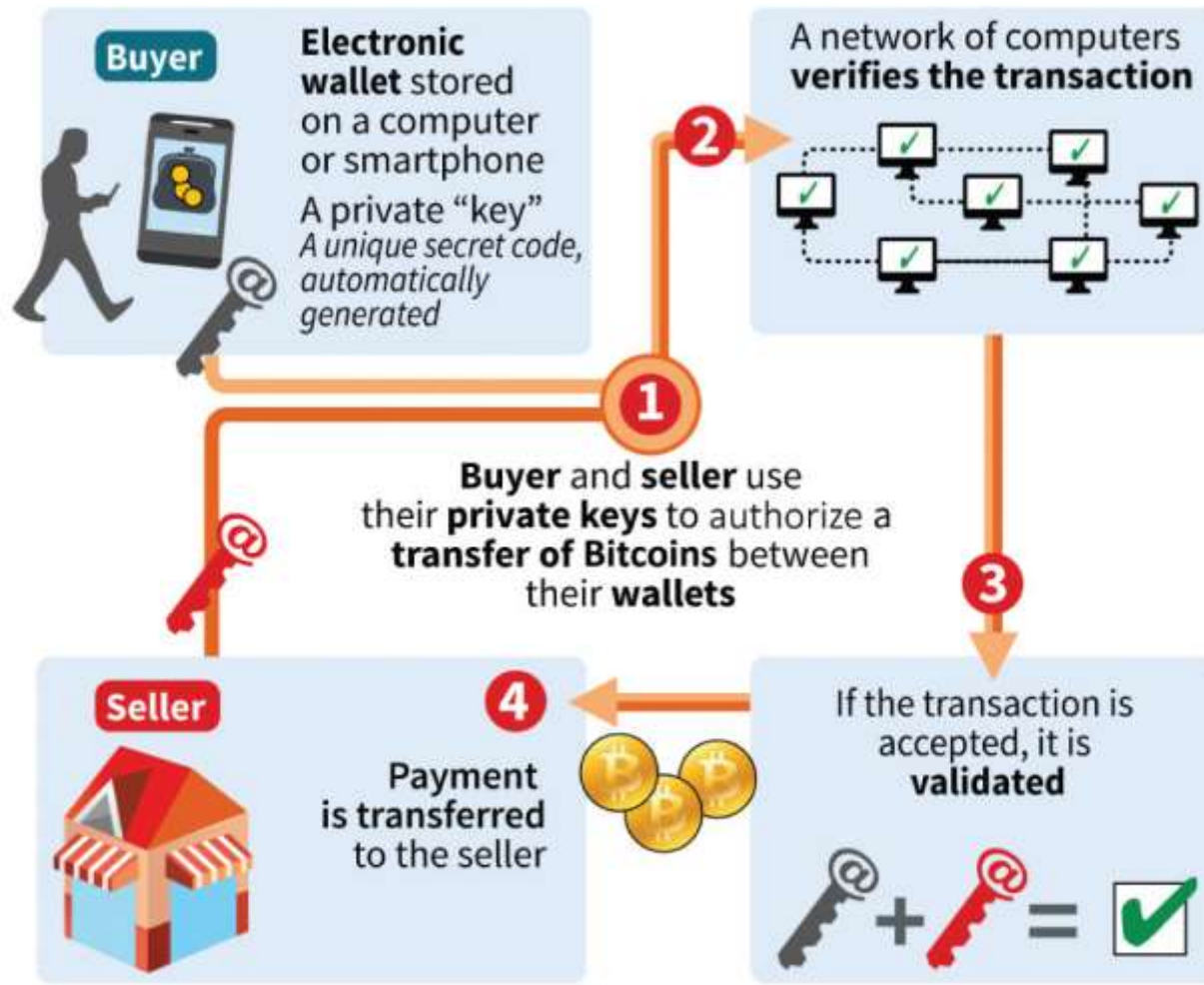
## TYPES OF MONEY PART II

- **Commodity money**—money that has value apart from its use as money.
- **Fiat money**—money that has value because the government says it does.
- **Digital money**—digital representations of money exchanged online by people across the world.
  - examples: Bitcoin, Zcash, Ethereum



# HOW TO BUY ITEMS USING BITCOIN

## How to buy items using Bitcoins



# THE GOLD STANDARD

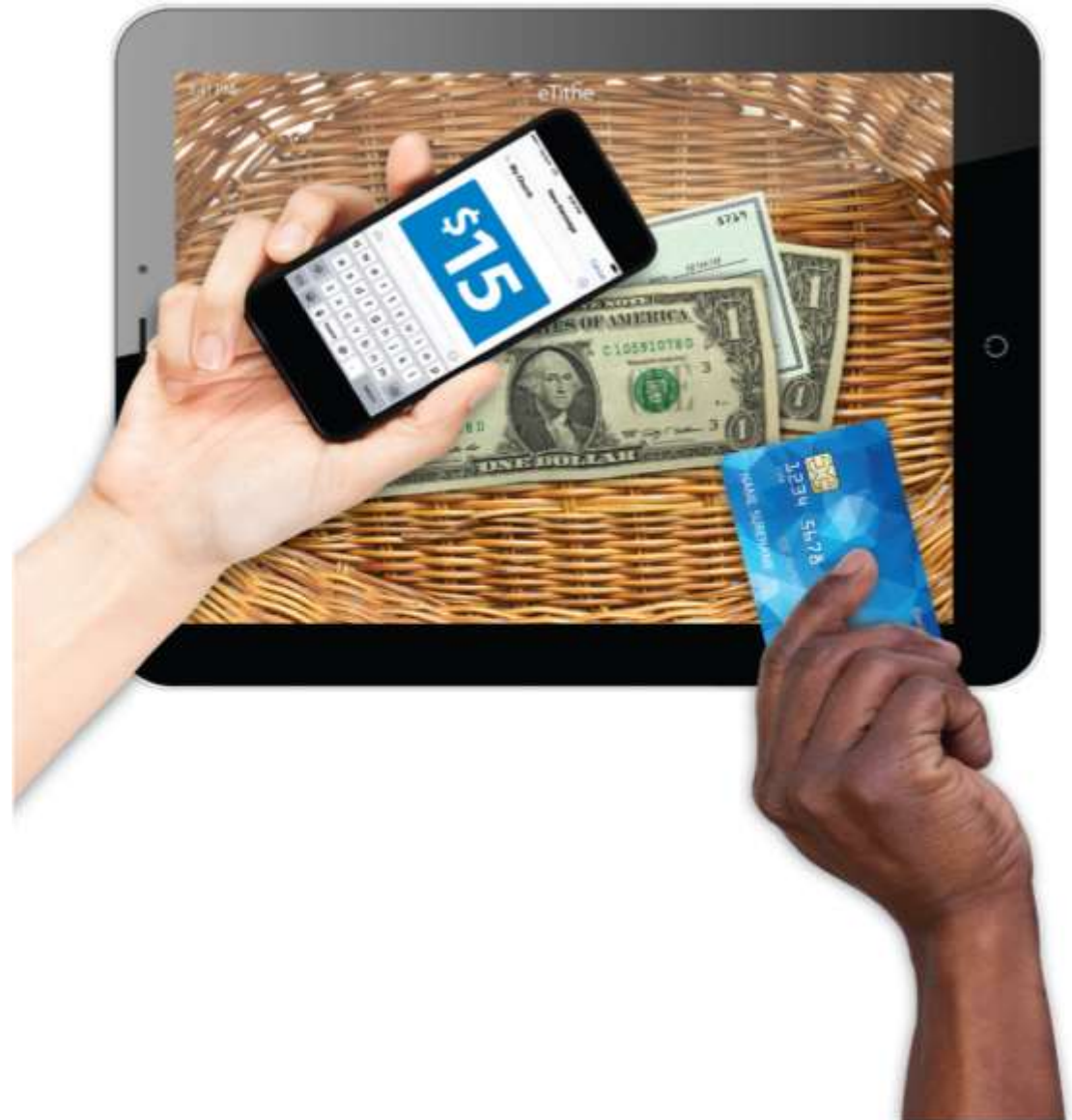
- **Gold standard**—a monetary system in which the value of money is measured in terms of gold.

Note: The United States was on and off a gold standard between 1873 and 1971, when fiat currency was then adopted.



# WHAT ISN'T MONEY?

- Credit cards
- Debit cards
- Checks
- Payment systems for digital devices
  - example: Apple Pay



# LEARN BY DOING: PRACTICE QUESTION 1

Which of the following is an example of fiat currency?

a) Bitcoin

b) the U.S. dollar

c) Yapese stone money

d) gold bars



# LEARN BY DOING: PRACTICE QUESTION 1

## (Answer)

Which of the following is an example of fiat currency?

a) Bitcoin

b) the U.S. dollar **(correct answer)**

c) Yapese stone money

d) gold bars

# THE TIME VALUE OF MONEY

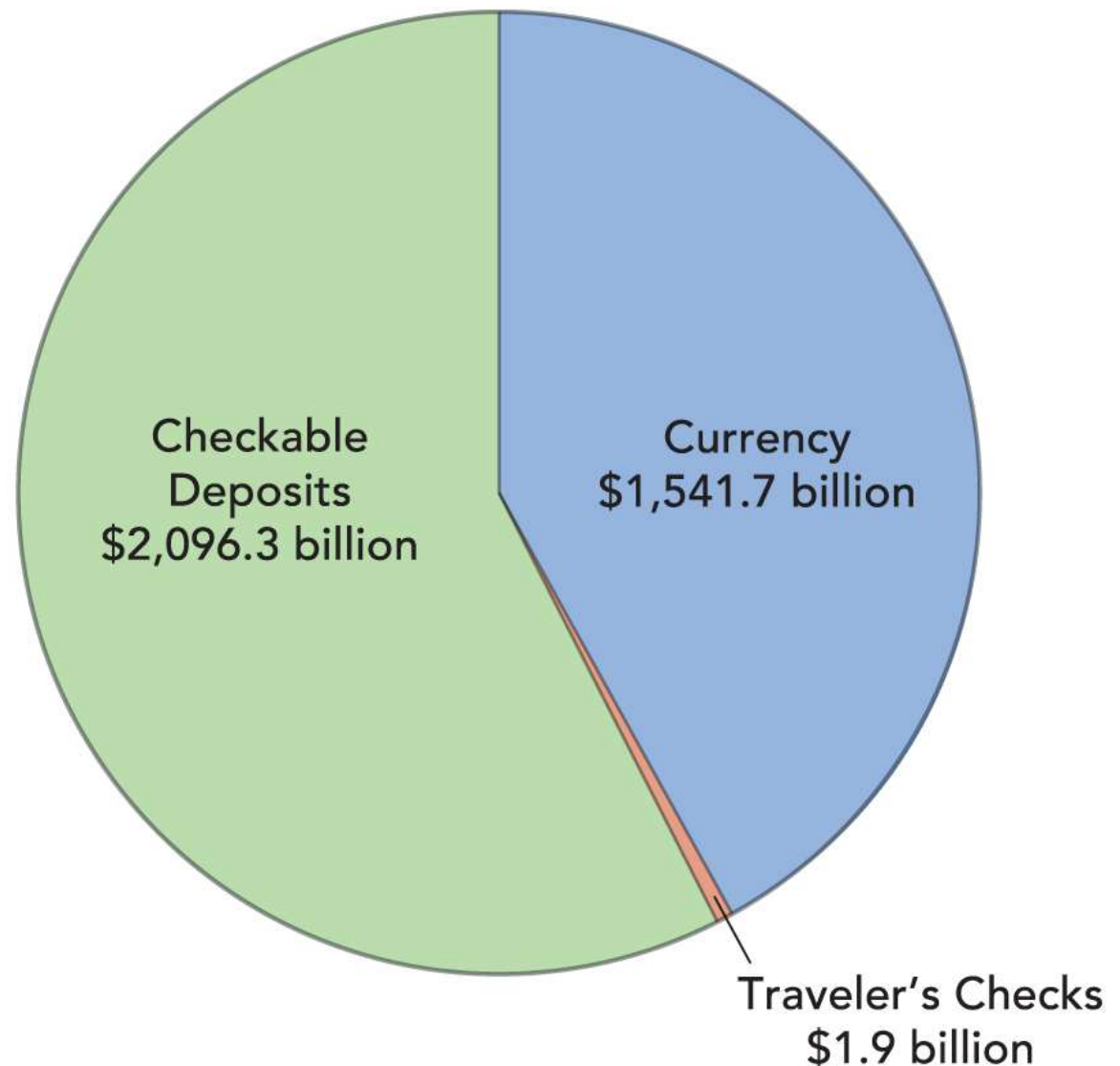
- **Time value of money**—the principle that it's better to have any given amount of money sooner rather than later.



Darren McCollester/Getty Images News/Getty Images

# MEASURES OF THE MONEY SUPPLY

- **M1**—the portion of the money supply that is made up of currency in circulation, checkable deposits, and traveler's checks.



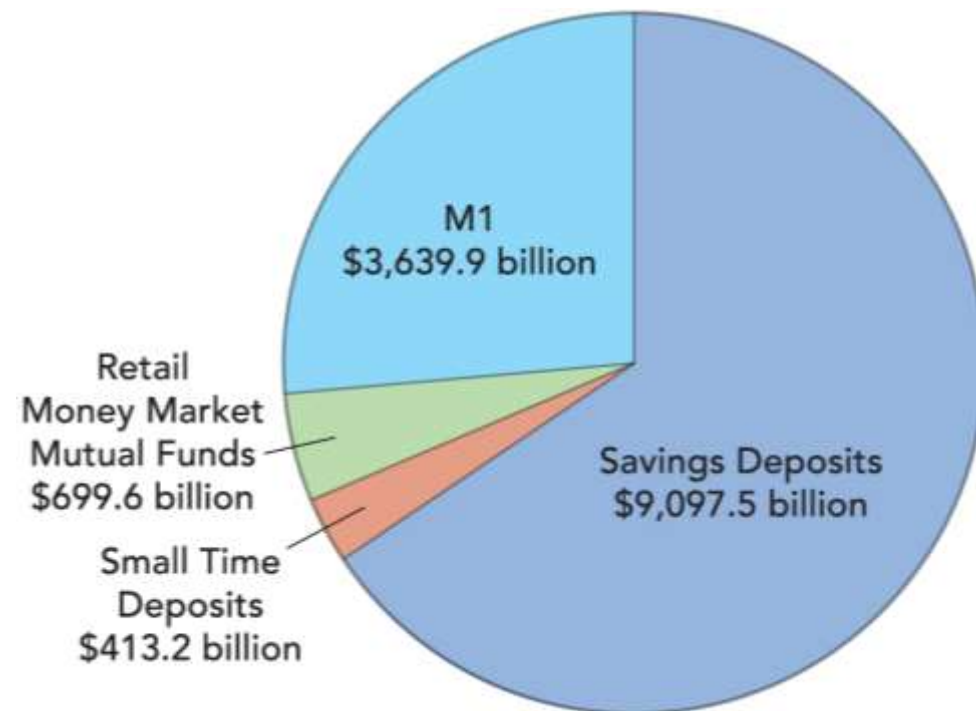
Data from: Federal Reserve.

# MEASURES OF THE MONEY SUPPLY

- **M2**—the portion of the money supply that consists of M1 and “near money” that is harder to exchange for goods and services than cash or checkable deposits.

Consists of:

- deposits in savings accounts
- small-time deposits
- retail money market mutual funds



Anderson, *Survey of Economics*, © 2019 Worth Publishers



# TYPES OF BANKS

- **Commercial banks**—banks that are in the business primarily of accepting deposits, making loans, and providing similar services to firms and the general public.
- **Investment banks**—specialize in helping corporate customers raise money to expand their businesses and do not take deposits.

# TYPES OF THRIFTS

- **Credit unions**—not-for-profit financial cooperatives with the central mission of providing affordable loans for the working class.
- **Savings bank**—banks established to help working-class families save money.
- **Saving and loan associations (S&Ls)**—financial institutions whose primary focus is to provide mortgage loans.

# BANK AND THRIFT FAILURES

- Bank runs can cause banks to collapse. This is because most of the money within banks is lent out to other customers.
- Due to past bank runs, there are now safeguards to combat this, such as:
  - the Federal Deposit Insurance Corporation
  - the National Credit Union Insurance Fund
  - the Federal Saving and Loan Insurance Corporation

# MONEY CREATION

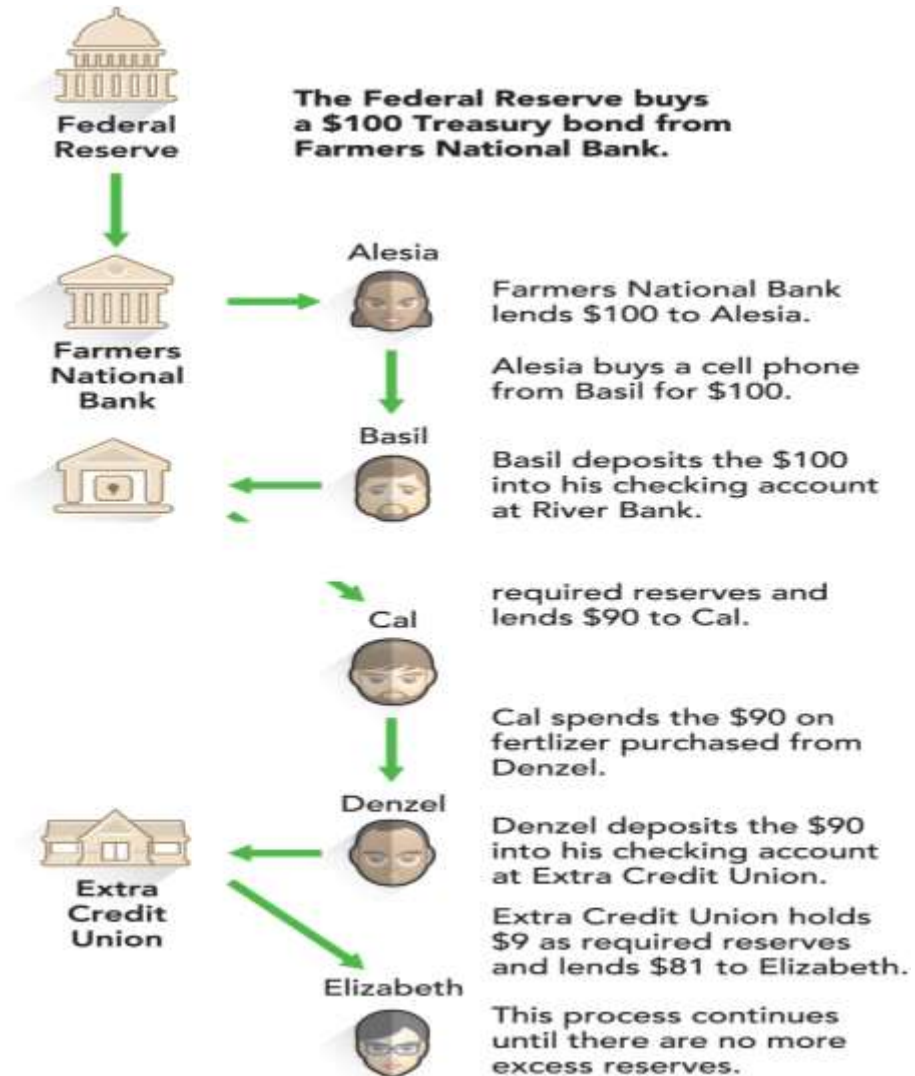
- **Fractional reserve banking system**—a banking system that allows banks and thrifts to lend out all but a fraction of the money they receive as deposits.
- **Reserves**—the deposits that banks have not lent out.
- **Reserve requirement**—the percentage of total deposits that a bank cannot lend out.
- **Required reserves**—reserves that cannot be lent out.
- **Excess reserves**—reserves that can be lent out.
- **Money multiplier**—a ratio that indicates the largest amount of money that can be created with each \$1 of excess reserves.



# MONEY CREATION

$$\text{money multiplier} = \frac{1}{\text{reserve requirement}}$$

potential increase  
in the money supply =  
excess reserves × money multiplier



## LEARN BY DOING: PRACTICE QUESTION 2

A bank has \$10 million of total deposits and a reserve ratio of 10 percent. The bank currently has \$5 million in reserves. What is the most amount of money creation that can take place?

- a) 50,000,000
- b) 40,000
- c) 40,000,000
- d) 50,000

# LEARN BY DOING: PRACTICE QUESTION 2

## (Answer)

A bank has \$10 million of total deposits and a reserve ratio of 10 percent. The bank currently has \$5 million in reserves. What is the most amount of money creation that can take place?

a) 50,000,000

b) 40,000

**c) 40,000,000 (correct answer)**

d) 50,000