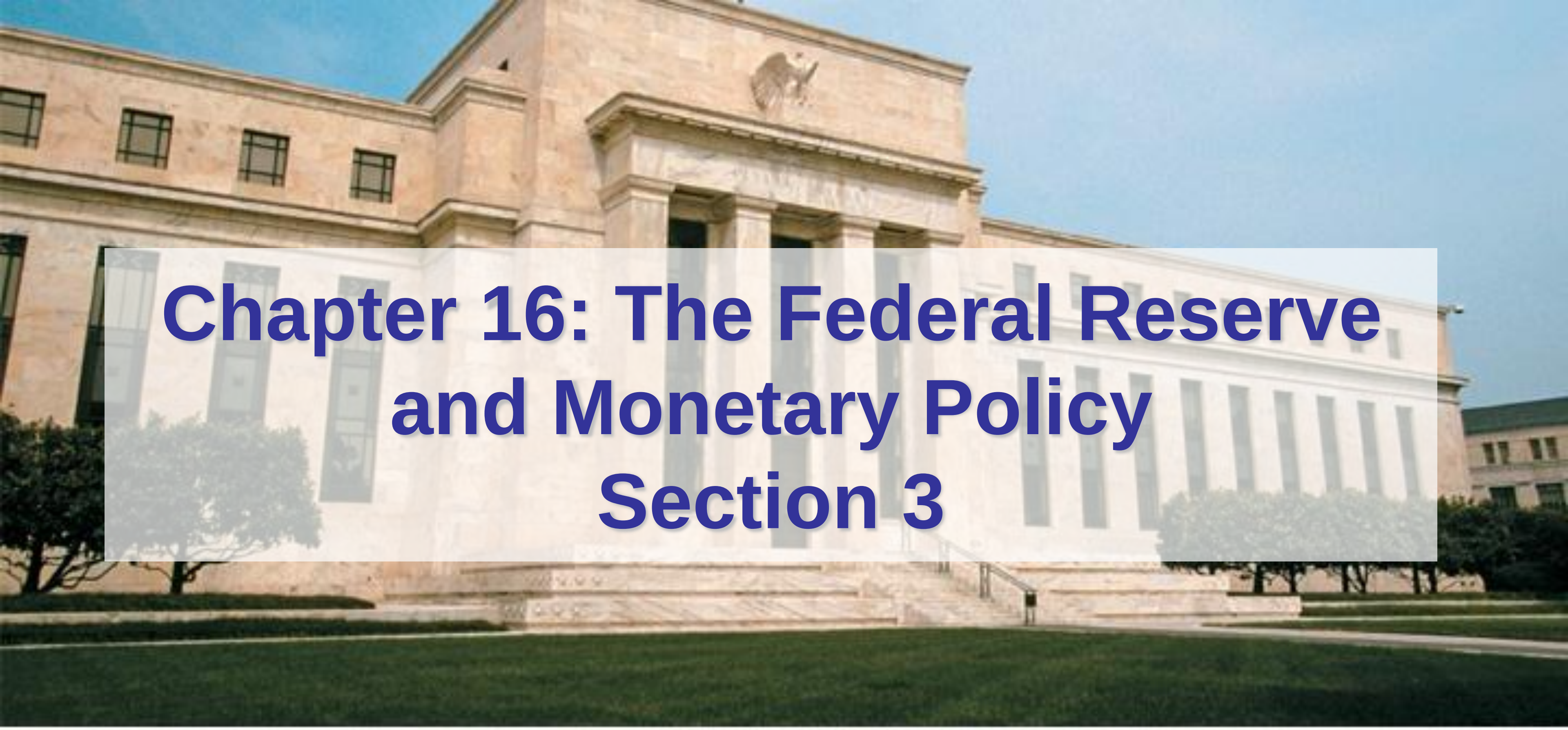
Chapter 16: The Federal Reserve and Monetary Policy
Section 3



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ECONOMICS

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Objectives

1. **Describe** the process of money creation.
2. **Explain** how the Federal Reserve uses reserve requirements, the discount rate, and open market operations to implement monetary policy.
3. **Explain** why the Fed favors one monetary policy tool over the others.

Key Terms

- **money creation**: the process by which money enters into circulation
- **required reserve ration (RRR):** the fraction of deposits that banks are required to keep in reserve
- **money multiplier formula**: a formula used to determine how much new money can be created with each demand deposit and added to the money supply

Key Terms, cont.

- **excess reserves**: bank reserves greater than the amount required by the Federal Reserve
- **prime rate:** the rate of interest that banks charge on short-term loans to their best customers
- **open market operations**: the buying and selling of government securities in order to alter the supply of money

Introduction

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- How does the Federal Reserve control the amount of money in use?
  - The Federal Reserve controls the amount of money in use by changing the required reserve ratio.
  - The Fed can lower or raise the discount rate in order to decrease or increase the money supply.
  - The Fed also uses open market operations to buy and sell government securities, which can alter the money supply.

Money Creation

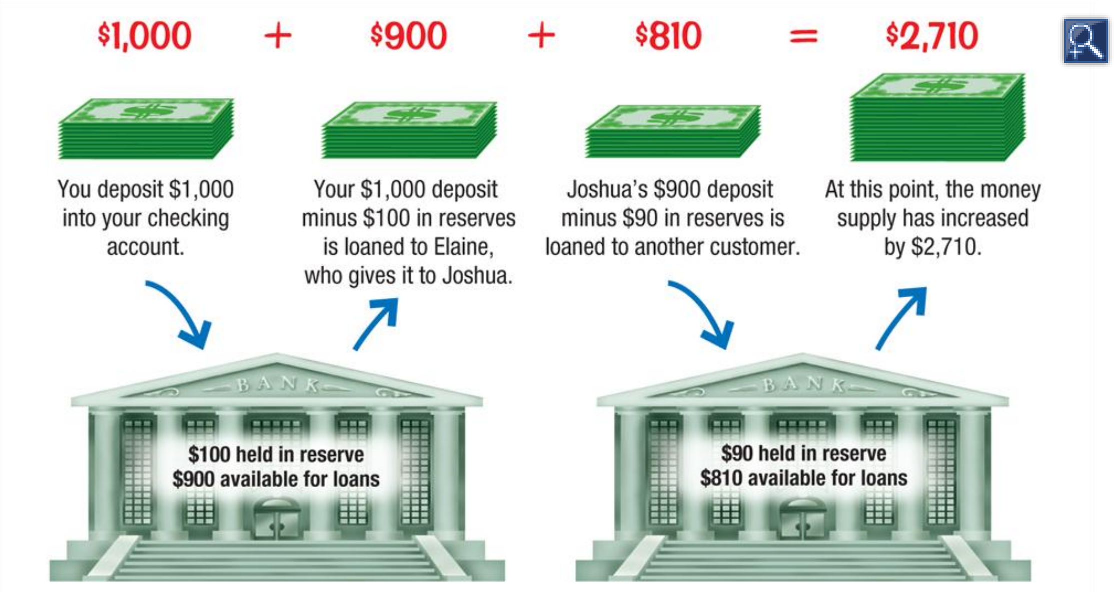
- The U.S. Department of the Treasury is responsible for manufacturing money in the form of currency.
- The process by which money enters into circulation is known as money creation and is carried out by the Fed and by banks all around the country.

Money Creation, cont.

- Checkpoint: How do banks create money simply by going about their business making loans?
  - Banks make money by charging interest on loans.
    - The maximum amount that a bank can lend is determined by the required reserve ratio (RRR), which is calculated as the ratio of reserves to deposits.
    - The RRR, which is established by the Fed, ensures that banks will have enough funds to supply customers' withdrawal needs.

Money Creation, cont.

- In this example of money creation, the money supply increases to $2,710 after four rounds.
  - In this example, what is the RRR?
  - Suppose Joshua deposited only $500 of Elaine's payment into his account. How much would the money supply increase then?

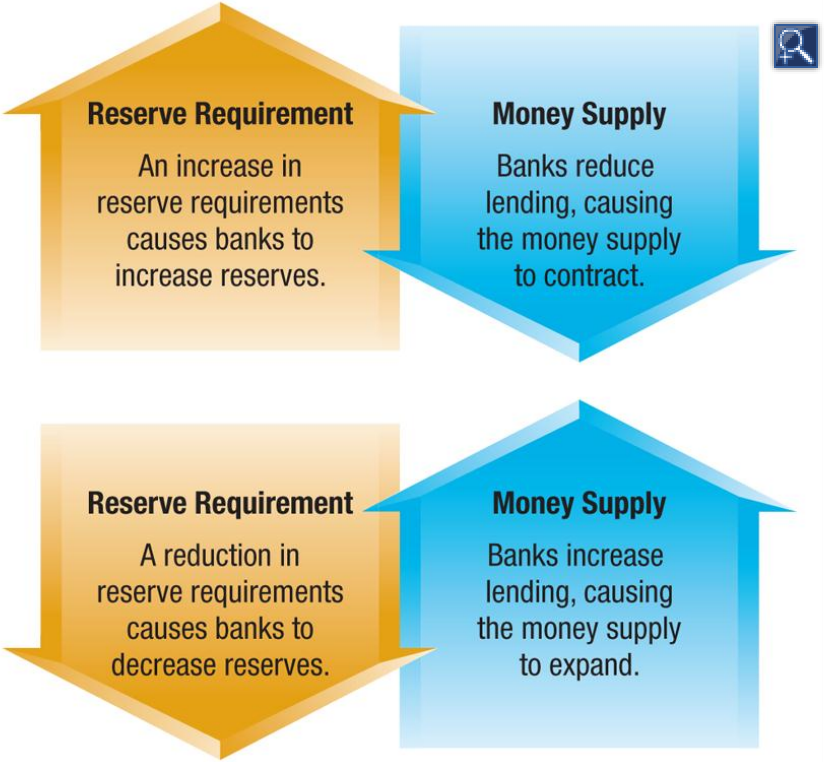


The Money Multiplier

- The money creation process will continue until the loan amount becomes very small.
- To determine the total amount of new money that can be created and added to the money supply, economics use the money multiplier formula, which is calculated as 1/RRR.
  - To apply the formula, they multiply the initial deposit by the money multiplier:
    - Increase in money supply = initial cash deposit x 1/RRR
  - The actual money multiplier effect in the United States is estimated to be between 2 and 3.

Reserve Requirements

- The simplest way for the Fed to adjust the amount of reserves in the banking system is to change the required reserve ratio.
  - What is the effect of reducing reserve requirements?
  - What action taken by the Fed with respect to reserve requirements causes the money supply to decrease?



The Discount Rate

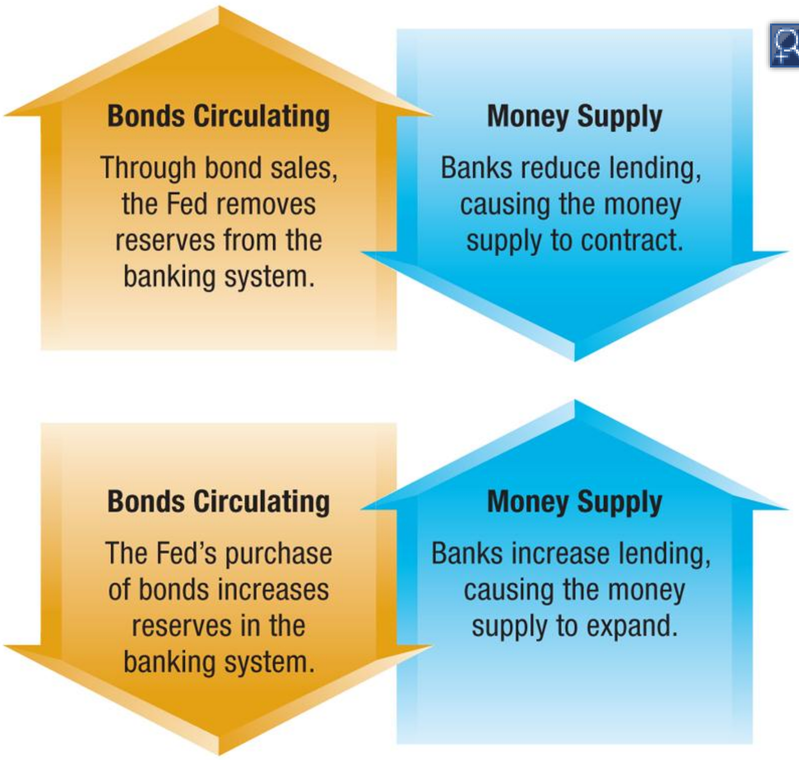
- The discount rate today is primarily used to ensure that sufficient funds are available in the economy.
- To enact monetary policy, the Fed primarily adjusts the federal funds rate—the interest rate that banks charge each other for loans.
  - The Fed sets the discount rate, and it keeps this rate above the federal funds rate.

The Prime Rate

- Changes in the federal funds rate and the discount rate affect the cost of borrowing to banks and other financial institutions.
- These changes, in turn, affect the prime rate, which is the rate of interest that banks charge on short-term loans to their best customers.
- These rates are all short-term rates. To influence long-term rates, the Fed uses other tools.

Open Market Operations

- Open market operations are the buying and selling of government securities in order to alter the supply of money and are the most often used tool of monetary policy.
  - When the Fed sells government securities to bond dealers, does that increase or decrease the amount of money in circulation?



Bond Purchases

- When the FOMC chooses to increase the money supply, it orders the trade desk at the Federal Reserve Bank of New York to purchase a certain quantity of government securities on the open market.
  - The money form the bond sales gets deposited in the bond sellers' banks.
  - In this way, funds enter the banking system, setting in motion the money creation process.

Selling Bonds and Evaluating Targets

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- The FOMC may also decrease the money supply by selling bonds.
  - This operation reduces reserves in the banking system. The money multiplier process then works in reverse.
- To judge whether its open market operations are having the desired effect on the economy, the Fed periodically evaluates one or more economics targets.
  - Close analysis of these targets helps the Fed meet its goal of promoting a stable and prosperous economy.

Using Monetary Policy Tools

- Open market operations are the most often used tool of monetary policy.
  - The Fed changes the discount rate less frequently and today, the Fed does not change reserve requirements to conduct monetary policy.
- In setting its monetary policy goals, the Fed keeps close touch on market funds, studying inflation and business cycles to determine its policy.

Review

- Now that you have learned how the Federal Reserve controls the amount of money in use, go back and answer the Chapter Essential Question.
  - How effective is monetary policy as an economic tool?