

# 17

## Monetary Policy



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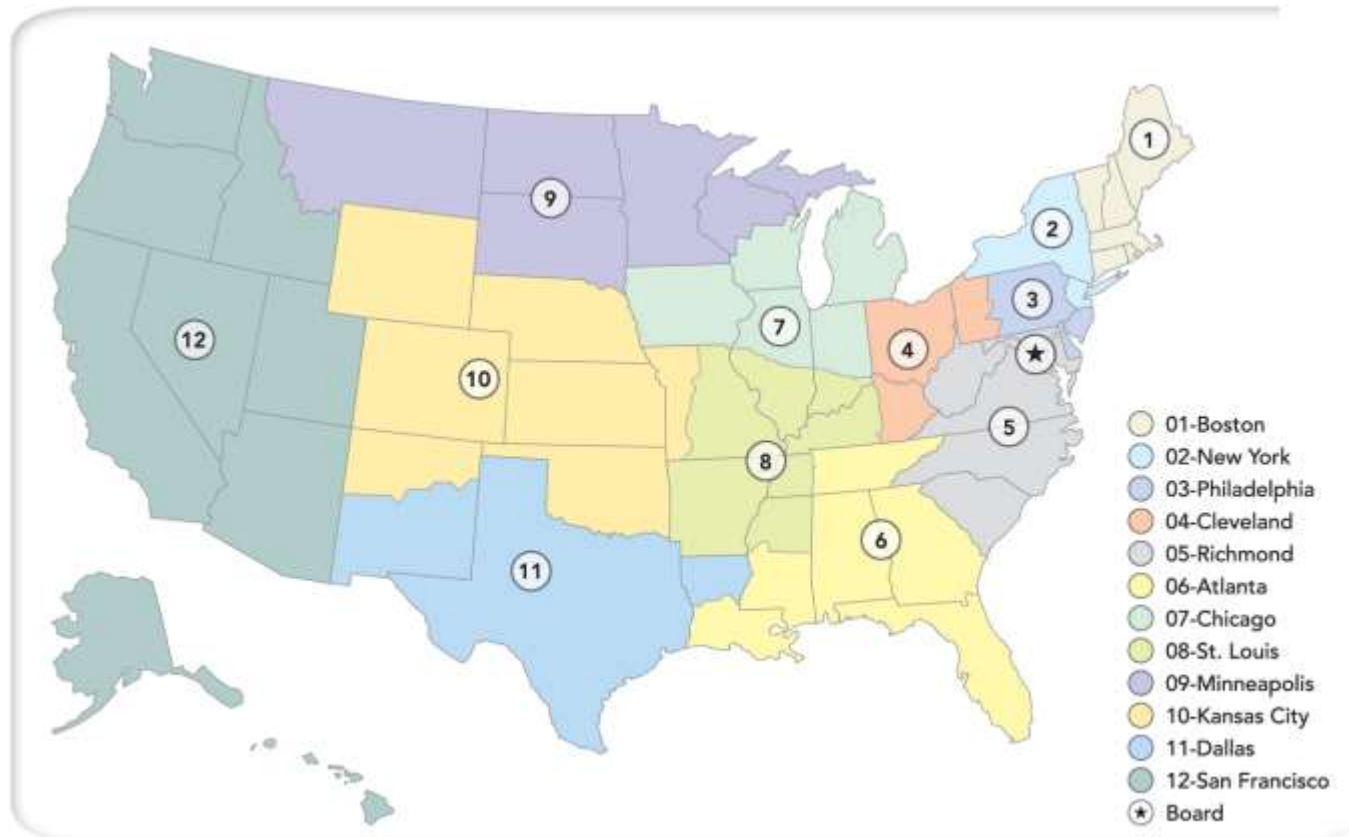
# LEARNING OBJECTIVES

1. Explain the fundamentals of the Federal Reserve System
2. Discuss the tools of monetary policy
3. Describe the strengths and limitations of monetary policy
4. Show the effects of monetary policy using a model of the money market

# THE FEDERAL RESERVE SYSTEM

- **Federal Reserve System**—the central bank of the United States.
- **Board of Governors of the Federal Reserve**—a seven-member board that manages the operations of the Federal Reserve.

# FEDERAL RESERVE DISTRICTS AND BANKS

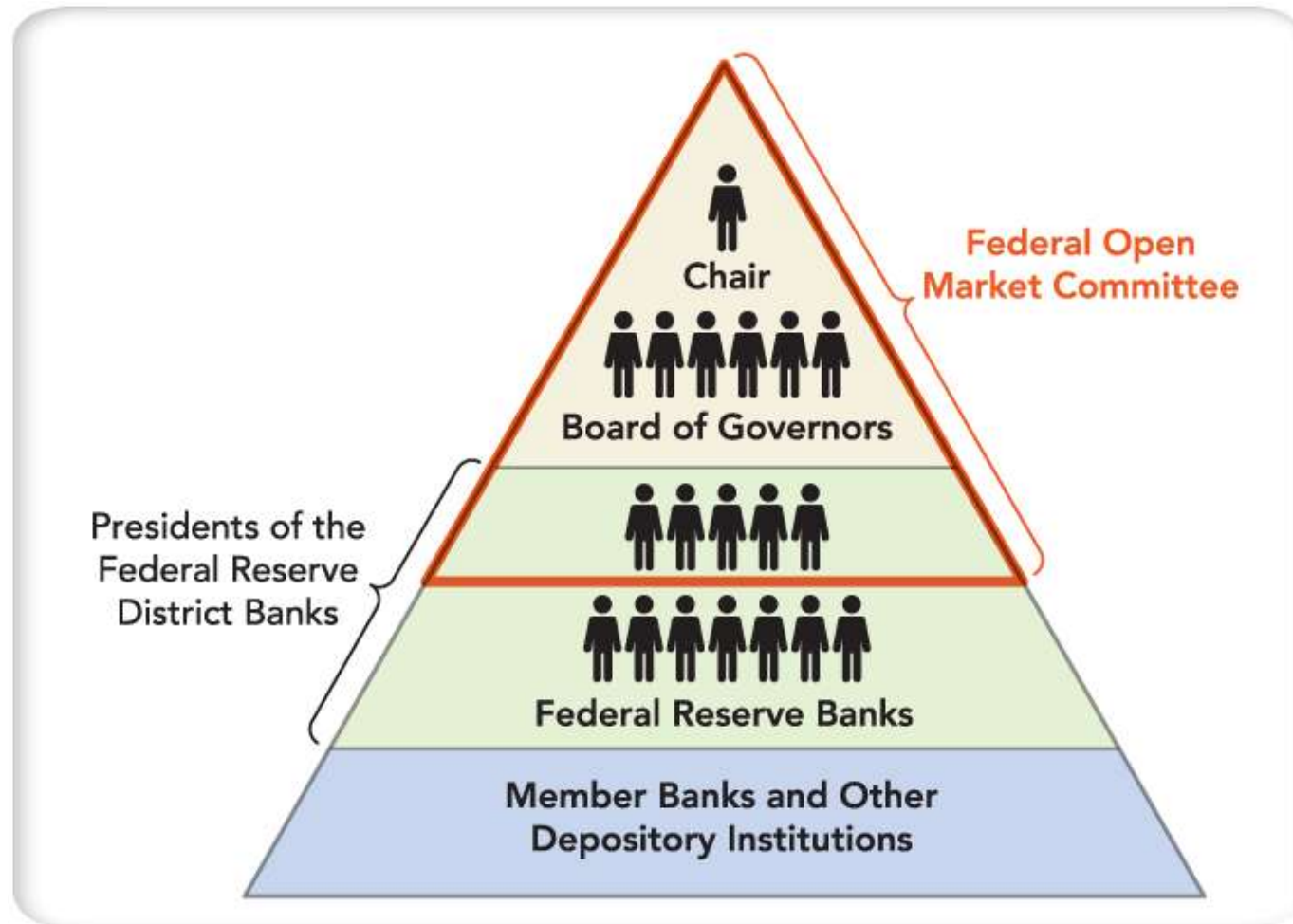


Anderson, *Survey of Economics*, © 2019 Worth Publishers

The Board of Governors helps craft monetary policies, oversees the Federal Reserve Banks, writes banking regulations, and supervises efforts to keep the nation's banks in compliance with the Fed's regulations.

# THE STRUCTURE OF THE FEDERAL RESERVE SYSTEM

- **Federal Open Market Committee (FOMC)**—the body within the Federal Reserve System that is ultimately responsible for making monetary policy decisions.



# FEDERAL RESERVE SYSTEM'S RESPONSIBILITIES

- 1) Conduct the nation's monetary policy with the goals of maintaining full employment, price stability, and economic growth.
- 2) Regulate, supervise, and examine the nation's banks to ensure the safety of the banking system.
- 3) Stabilize the financial system and contain any "systematic risk that may arise in the financial markets."
- 4) Provide financial services to the federal government and serve as the "bankers' bank." In this capacity, the Fed holds cash reserves for banks, provides them with loans, and processes checks that pass through the nation's banking system.

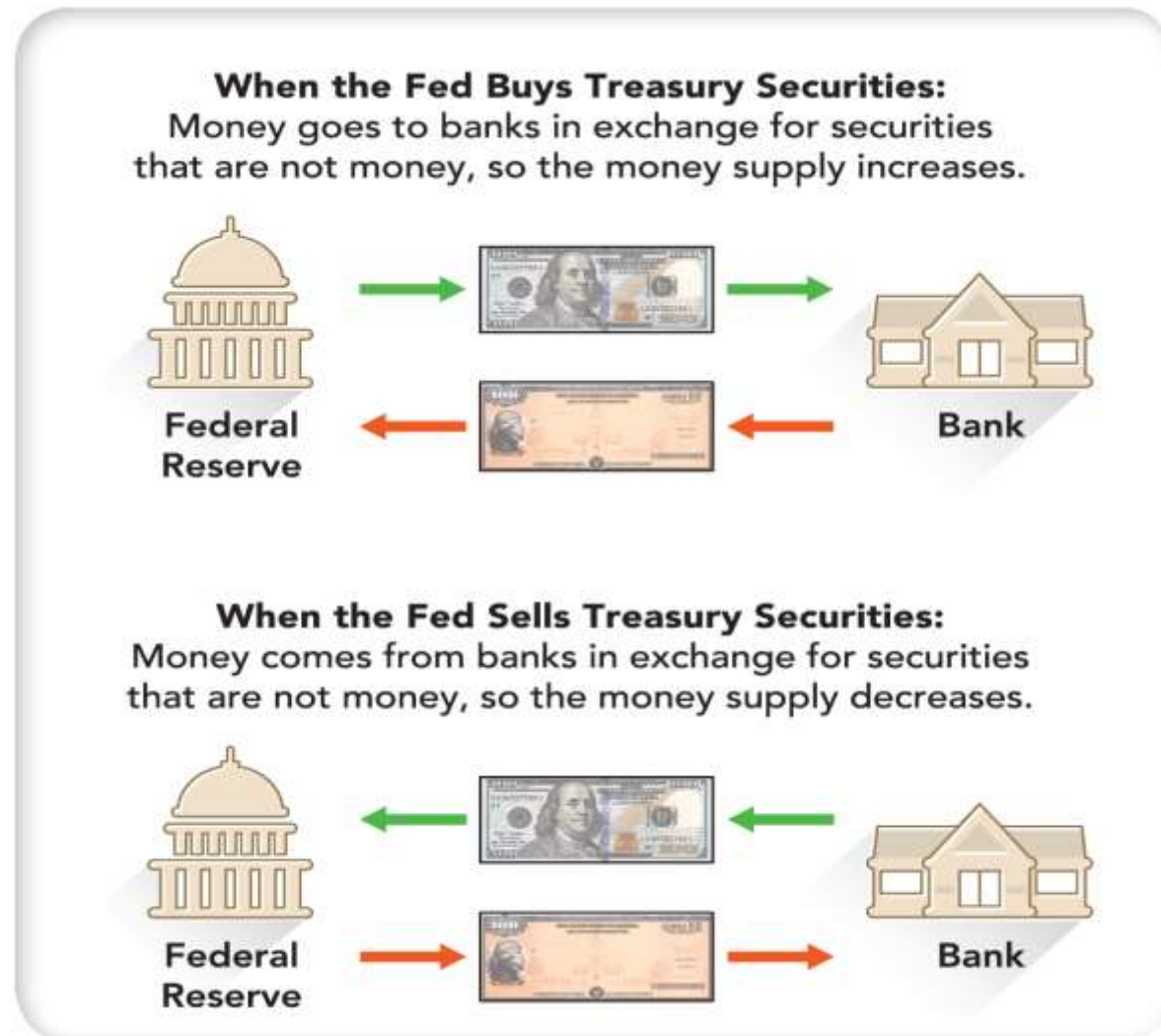
# THE TOOLS OF MONETARY POLICY

- **Monetary policy**—policies the Federal Reserve uses to manage the money supply and interest rates in efforts to stabilize the economy.
- **Expansionary monetary policy**—monetary policy designed to stimulate the economy.
  - also known as *easy money* policy
- **Contractionary monetary policy**—monetary policy designed to slow the economy down and fight inflation.
  - also known as *tight money* policy



# THE TOOLS OF MONETARY POLICY PART II

- **Open market operations**—the Fed’s purchases and sales of Treasury securities.
- **Treasury securities**—documents that constitute promises by the U.S. Treasury to repay money that the federal government has borrowed.





# THE TOOLS OF MONETARY POLICY PART III

- **Federal funds rate**—the interest rate that banks charge each other for short-term loans.
- **Discount rate**—the interest rate that Federal Reserve Banks charge financial institutions for short-term loans.
- **Reserve requirement**—the percentage of deposits a bank must hold, either in their vaults or in their accounts at the Federal Reserve.

# EFFECTS OF CHANGES IN MONETARY POLICY

Tool	Expansionary Monetary Policy	Contractionary Monetary Policy
Open market operations	Buy Treasury securities	Sell Treasury securities
Discount rate	Decrease	Increase
Reserve requirement	Decrease	Increase



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If the Fed decreases the reserve requirement, banks can lend out more, fueling an increase in the money supply.

# LEARN BY DOING: PRACTICE QUESTION 1

All of the following would occur due to contractionary monetary policy EXCEPT:

- a) interest rates increase
- b) consumer spending increases
- c) aggregate demand decreases
- d) investment spending decreases

# LEARN BY DOING: PRACTICE QUESTION 1

## (Answer)

All of the following would occur due to contractionary monetary policy EXCEPT:

- a) interest rates increase
- b) consumer spending increases (correct answer)**
- c) aggregate demand decreases
- d) investment spending decreases

# THE STRENGTHS AND LIMITATIONS OF MONETARY POLICY

- The FOMC is much smaller and less politically charged than Congress, so it can respond to fiscal problems relatively quickly.
- The speed and power of monetary policy is hindered by pessimism. Lost confidence in the economy is hard to overcome.

# NEW MONETARY POLICY TOOLS FOR SEVERE PROBLEMS

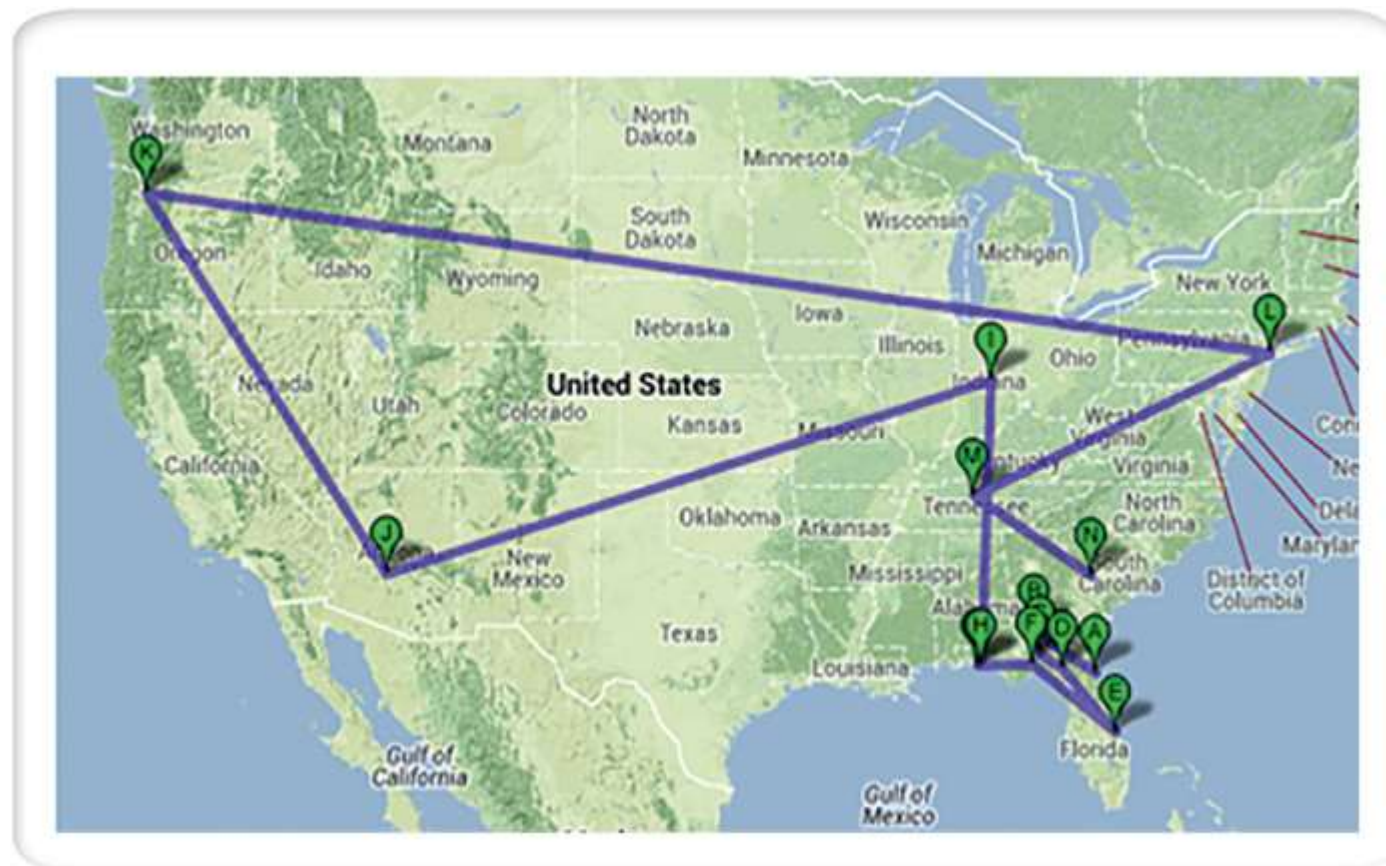
In 2007, the Fed enacted three temporary programs to improve the availability of loans. To secure these short-term loans, institutions had to put up **collateral**, which is an asset a borrower forfeits to a lender if they don't repay the loan.

- Term Auction Facility
- Term Securities Lending Facility
- Primary Dealer Credit Facility

# THE QUANTITY THEORY OF MONEY

- **Quantity theory of money**—the theory that an increase in the money supply merely causes a proportional increase in the price level.

- **Velocity of money**—the number of times the average unit of currency is spent in one year.





# THE QUANTITY THEORY OF MONEY PART II

- **Equation of exchange**—an equation that expresses the relationship between the money supply (M), the velocity of money (V), the price level (P), and real GDP (Y).

$$MV = PY$$

- **Discretionary monetary policy**—adjustments in the money supply in response to changes in the economy will mostly affect only the price level in the economy.
- **Quantitative easing**—a substantial exchange of the money supply achieved with central bank purchases of securities from other banks and financial institutions.

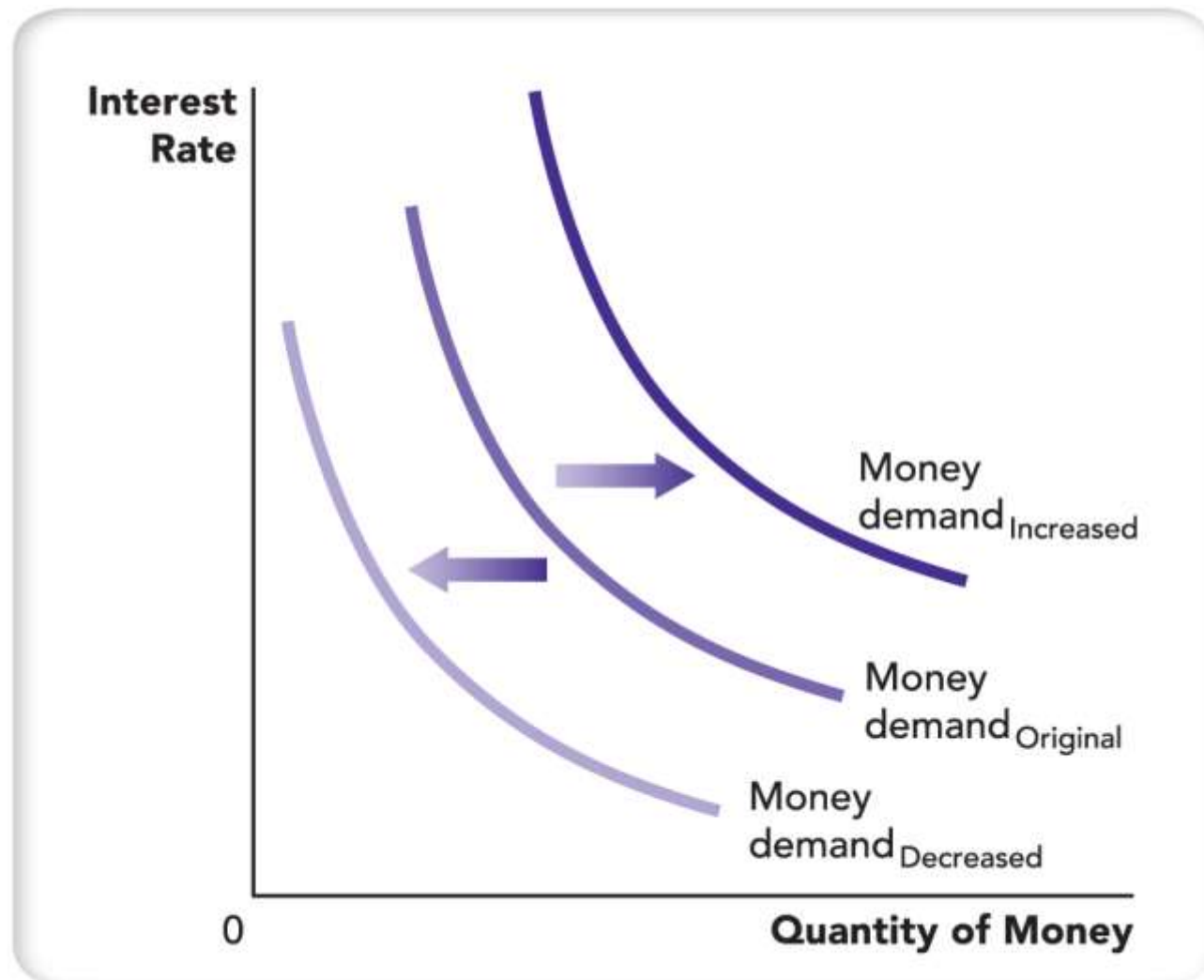
# THE MARKET FOR MONEY

There are three primary reasons people hold money. To make transactions, as a precaution, and for speculative purposes:

- **Transactions demand**—the demand for money used to make typical day-to-day purposes.
- **Precautionary demand**—the demand for money that can be used to cover unexpected expenses.
- **Speculative demand**—the demand for money used to make investment opportunities or avoid losses due to anticipated changes in the value of alternative investments.

# MONEY DEMAND

- The demand curve for money is downward sloping because people want to hold more money when the opportunity cost of holding money, the interest rate, is low than when it is high.

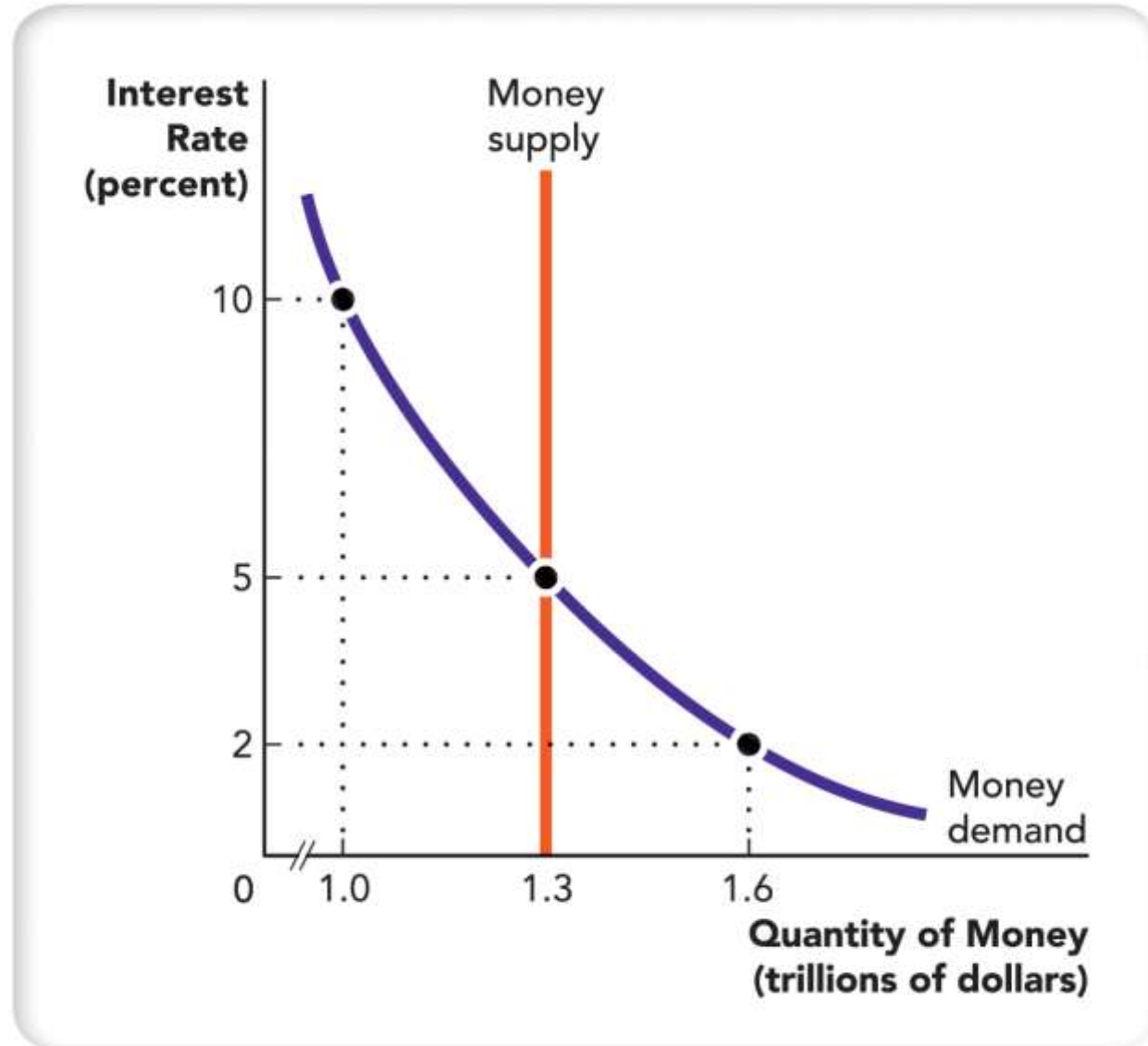


# FACTORS THAT CHANGE THE TRANSACTIONS DEMAND FOR MONEY

- Changes in the price level
- Changes in real GDP
- Changes in technology
- Changes in institutions

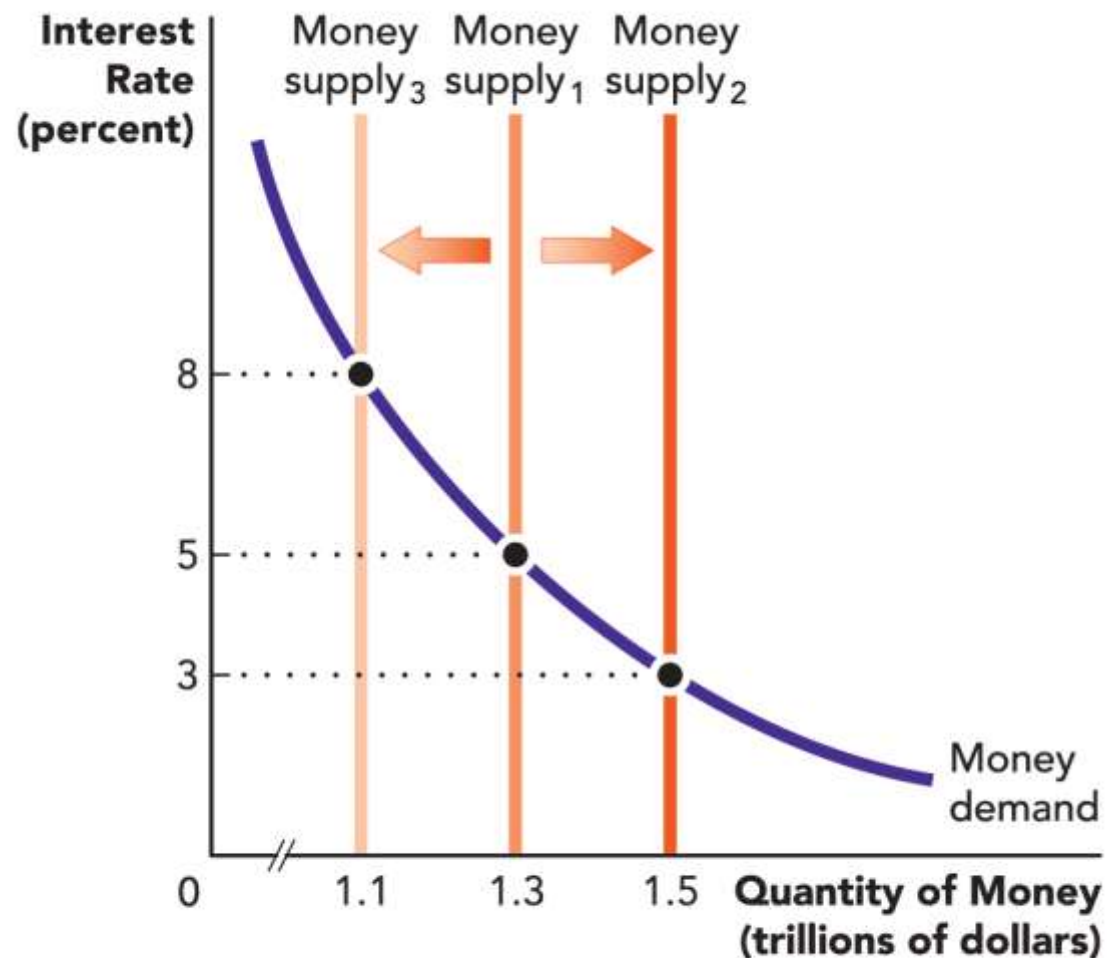
# MONEY SUPPLY AND EQUILIBRIUM

- The Fed chooses the money supply that will establish the money market equilibrium at the Fed's targeted rate of interest.
- The money supply curve is thus vertical at the quantity of money chosen by the Fed.



# THE EFFECTS OF MONETARY POLICY

- Expansionary monetary policy increases the money supply and shifts the money supply curve to the right. This lowers the equilibrium interest rate.
- Contractionary monetary policy decreases the money supply and shifts the money supply curve to the left. This raises the equilibrium interest rate.



## LEARN BY DOING PRACTICE QUESTION 2

The Fed enacts an expansionary monetary policy. What shift will this cause in the money supply, and what effect with this have on interest rates?

- a) leftward shift in money supply; decrease in interest rates
- b) leftward shift in money supply; increase in interest rates
- c) rightward shift in money supply; increase in interest rates
- d) rightward shift in money supply; decrease in interest rates



# LEARN BY DOING: PRACTICE QUESTION 2

## (Answer)

The Fed enacts an expansionary monetary policy. What shift will this cause in the money supply, and what effect with this have on interest rates?

- a) leftward shift in money supply; decrease in interest rates
- b) leftward shift in money supply; increase in interest rates
- c) rightward shift in money supply; increase in interest rates
- d) rightward shift in money supply; decrease in interest rates  
(correct answer)**