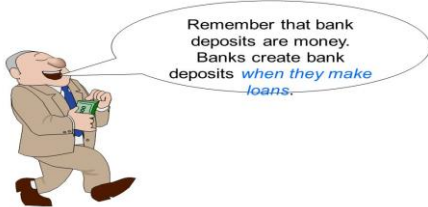


CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

Banks create money!!



1

1

WHAT YOU WILL LEARN IN THIS CHAPTER

- What are the various roles money plays and what forms does it take?
- Why is the level of the money supply so important to the state of the economy?
- How do the actions of private banks and the Federal Reserve determine the money supply?
- How does the Federal Reserve use open-market operations to change the monetary base?

2

2

MONEY: THE ESSENTIAL CHANNEL BETWEEN MARKETS

- Money plays unique and very important roles in modern economies.



3

IMPORTANT MONEY DEFINITIONS

- **Money:** any asset that can easily be used to purchase goods and services
- **Currency in circulation:** cash held by the public
- **Checkable bank deposits:** bank accounts on which people can write checks
- The **money supply** is the total value of financial assets in the economy that are considered money

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

THE ROLES OR FUNCTIONS OF MONEY

- Money must function as:
 - a medium of exchange.
 - a store of value.
 - a unit of account
 - standard of deferred payment.



5

MEDIUM OF EXCHANGE

- **Medium of exchange:** something people accept as payment for goods and services
 - (an asset that individuals acquire for the purpose of trading rather than for their own consumption)

STORE OF VALUE

- **Store of value:** Money is a means of holding purchasing power over time.
- It enables people to save the money they earn today and use it to buy the goods and services they want tomorrow.

6

UNIT OF ACCOUNT

- **Unit of account:** Money provides a yardstick for measuring and comparing the values of a wide variety of goods and services.

STANDARD OF DEFERRED PAYMENT

- **Standard of deferred payment:** Money is being widely accepted way to value a debt; thereby allowing goods and services to be acquired now and *paid* for in the future

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TYPES OF MONEY

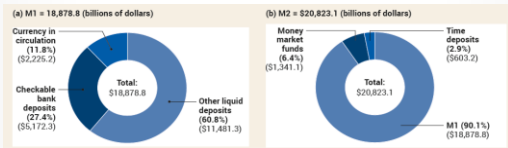
- For thousands of years, societies have used commodity money.
- **Commodity money:** a good used as a medium of exchange that has intrinsic value in other uses
- **Commodity-backed money:** a medium of exchange with **no intrinsic value**; the ultimate value is guaranteed by a promise that **it can be converted into valuable goods**
- **Fiat money:** money whose value derives entirely from its official status as a means of payment

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

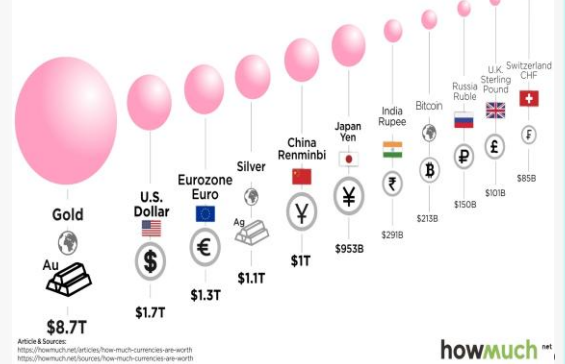
MEASURING THE MONEY SUPPLY

- **Monetary aggregate:** an overall measure of the money supply.
 - Two measures of the money supply:
 - M1 includes only the most liquid forms of money.
 - M2 includes **near-moneys**: financial assets that can't be directly used as a medium of exchange but can readily be converted into cash or checkable bank deposits. Example: small-denomination certificates of deposit (CDs), which aren't checkable but can be withdrawn at any time before their maturity date



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How Much Currencies Are Worth Around the World Total Currency In Circulation (in \$)



howmuch.net

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LEARN BY DOING PRACTICE QUESTION 1

- Which of these assets would you classify as being the most liquid?
 - demand deposits
 - small-time deposits
 - a house
 - gold bullion

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LEARN BY DOING PRACTICE QUESTION 1 (Answer)

- Which of these assets would you classify as being the most liquid?
 - demand deposits (correct answer)**
 - small-time deposits
 - a house
 - gold bullion

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

THE MONETARY ROLE OF BANKS

- **Q: Only half of M1 is currency; where does the rest of the money supply come from?**
- **A: Bank deposits make up half of M1 and most of M2.**
- **How does the banking system create money?**



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WHAT BANKS DO

- Banks are financial intermediaries that use liquid assets (in the form of bank deposits) to finance the illiquid investments of borrowers.
- Banks create liquidity because they don't have to keep all of the funds in highly liquid assets.
- To meet depositors' demands, a bank must keep currency in its vault or deposits at the Federal Reserve.
- **Bank reserves:** the currency that banks hold in their vaults plus their deposits at the Federal Reserve.

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REQUIRED AND EXCESS RESERVES

- The bank must keep *some* cash available for its depositors; it does this through a combination of *vault cash* and deposits with the Federal Reserve.
- Banks in the U.S. are required to hold **required reserves**: reserves that a bank is legally required to hold, based on its checking account deposits.
- The **required reserve ratio (RR)** is the minimum fraction of deposits banks are required by law to keep as reserves.
- Banks might choose to hold **excess reserves**: reserves over the legal requirement.

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WHAT BANKS DO

Assets		Liabilities	
Loans	\$1,200,000	Deposits	\$1,000,000
Reserves	\$100,000		

- **T-account:** a tool for analyzing a business's financial position by showing the business's assets and liabilities.
- The **reserve ratio**: the fraction of bank deposits that a bank holds as reserves ($\$100,000/\$1,000,000 = 10\%$).
- The Federal Reserve sets a minimum required reserve ratio for banks, which since March 2020 has been zero. To understand why banks are regulated, let's consider a problem banks can face: bank runs.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

THE PROBLEM OF BANK RUNS

- Banks hold only a fraction of deposits on reserve and use the rest to make loans.
 - From time to time, people get worried about banks losing their money.
- Bank run:** a phenomenon in which many of a bank's depositors try to withdraw their funds because they fear a bank failure.
- Historically, bank runs have proved contagious, with a run on one bank leading to a loss of faith in other banks, causing additional bank runs.
- In response to bank runs, the United States established a system of bank regulations that protect depositors.

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BANK REGULATION

- Four main features:
 - Deposit insurance:** a guarantee that a bank's depositors will be paid even if the bank can't come up with the funds (the FDIC currently guarantees the first \$250,000 of each account).
 - Capital requirements:** requirement that the owners of banks hold substantially more assets than the value of bank deposits.
 - Deposit insurance creates a well-known incentive problem: banks can take more risks since they are insured.
 - To help motivate safe behavior, banks' capital is required to equal 7% or more of their assets.
 - Reserve requirements:** rules set by the Federal Reserve that determine the minimum reserve ratio for a bank.
 - Discount window:** an arrangement in which the Federal Reserve stands ready to lend money to banks in trouble.

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LIMITS TO REGULATION'S REACH: SHADOW BANKING

- As the financial crisis showed us, there are many large financial firms that don't accept deposits, so they aren't covered by deposit insurance or regulation that make conventional banks safer.
- These "shadow banks" include:
 - investment banks
 - insurance companies
 - hedge fund companies
 - money market fund companies

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HOW BANKS CREATE MONEY (1/2)

- Silas keeps a shoebox full of cash under his bed. Deciding to enter the twenty-first century, he deposits this cash at the bank. What's the effect of his \$1,000?
 - Assume that the reserve ratio is 10%.
 - The bank will reserve 10% and lend out 90% of the deposit.

(a) Initial Effect Before Bank Makes a New Loan

Assets		Liabilities	
Loans	No change	Checkable deposits	+\$1,000
Reserves	+\$1,000		

(b) Effect When Bank Makes a New Loan

Assets		Liabilities	
Loans	+\$900		No change
Reserves	-\$900		

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

HOW BANKS CREATE MONEY (2/2)

- The first bank lends \$900 to Maya, who pays the money to Anne, who deposits it at her bank—and the cycle starts all over. Sounds familiar?

TABLE 1 How Banks Create Money

	Currency in circulation	Checkable bank deposits	Money supply
First stage Silas keeps his cash under his bed.	\$1,000	\$0	\$1,000
Second stage Silas deposits cash in First Street Bank, which lends out \$900 to Maya, who then pays it to Anne Acme.	900	1,000	1,900
Third stage Anne Acme deposits \$900 in Second Street Bank, which lends out \$810 to another borrower.	810	1,900	2,710

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RESERVES, BANK DEPOSITS, AND THE MONEY MULTIPLIER

- Before, we described the multiplier process when an initial increase in real GDP leads to a rise in consumer spending, which leads to a further rise in real GDP, which leads to a further rise in consumer spending, and so on. Here we have another kind of multiplier—the money multiplier.
- Excess reserves:** bank's reserves over and above the reserves required by law or regulation.
 - Assume that banks don't want to hold excess reserves.
- Increase in bank deposits from \$1,000 in excess reserves = \$1,000 + [\$1,000 × (1 - rr)] + [\$1,000 × (1 - rr)²] + [\$1,000 × (1 - rr)³] + . . .
- This can be simplified to \$1,000/rr.

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LEARN BY DOING PRACTICE QUESTION 2

Assets		Liabilities	
Required reserves	\$100	Deposits	\$1,000
Loans	\$400		
Treasury bills	\$800		

- Given this T-account and assuming the bank holds no excess reserves, what is the required reserve ratio?
 - 10%
 - 40%
 - 80%
 - 1%

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LEARN BY DOING PRACTICE QUESTION 2 (Answer)

Assets		Liabilities	
Required reserves	\$100	Deposits	\$1,000
Loans	\$400		
Treasury bills	\$800		

- Given this T-account and assuming the bank holds no excess reserves, what is the required reserve ratio?
 - 10% (correct answer)**
 - 40%
 - 80%
 - 1%

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

LEARN BY DOING PRACTICE QUESTION 3

- Suppose the required reserve ratio initially is 10% of bank deposits and is increased by the Fed to 20% of bank deposits. Holding everything else constant, this will:
 - reduce the size of the money multiplier.
 - cause the banking system to contract the level of bank deposits in the banking system.
 - change the value of the money multiplier from 10 to 5.
 - Answers (a), (b), and (c) are all correct.

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LEARN BY DOING PRACTICE QUESTION 3 (Answer)

- Suppose the required reserve ratio initially is 10% of bank deposits and is increased by the Fed to 20% of bank deposits. Holding everything else constant, this will:
 - reduce the size of the money multiplier.
 - cause the banking system to contract the level of bank deposits in the banking system.
 - change the value of the money multiplier from 10 to 5.
 - Answers (a), (b), and (c) are all correct. (correct answer)**

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MONEY CREATION AT BANK OF AMERICA

Assets		Liabilities	
Reserves	+\$1,000	Deposits	+\$1,000

Your deposit of \$1,000 into your checking account increases Bank of America's assets and liabilities by the same amount.

When you deposit \$1,000 in currency at Bank of America, its reserves increase by \$1,000 and so do its deposits.

The currency component of the money supply decreases by the \$1,000, since that \$1,000 is no longer in circulation; but the checking deposits component increases by \$1,000. So there is no net change in the money supply—yet.

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BANK OF AMERICA LENDS MONEY OUT

Assets		Liabilities	
Reserves	+\$1,000	Deposits	+\$1,000
Loans	+\$900	Deposits	+\$900

1. By loaning out \$900 in excess reserves...

2. ... Bank of America has increased the money supply by \$900.

But Bank of America needs to make a profit; so it keeps 10 percent of the deposit as reserves, and lends out the rest, creating a \$900 checking account deposit.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

FOLLOW THE MONEY...

Bank of America		PNC Bank	
Assets	Liabilities	Assets	Liabilities
Reserves +\$100	Deposits +\$1,000	Reserves +\$900	Deposits +\$900
Loans +\$900			

1. When the \$900 check that was deposited in a PNC account arrives to be cleared, the increase in Bank of America's reserves (shown in the previous T-account) falls by \$900 to \$100...

2... and the increase in Bank of America's deposits falls by \$900 to \$1,000.

After the check drawn on the account at Bank of America clears, PNC's reserves and deposits both increase by \$900.

The \$900 initially appears in a BoA checking account, but will soon be spent; and Bank of America will transfer \$900 in currency to the bank at which the \$900 check is deposited.

And the cycle will continue, with PNC now making a loan.

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WHEN WILL IT END?

Bank	Increase in Checking Account Deposits
Bank of America	\$1,000
PNC	+ 900 (= 0.9 × \$1,000)
Third Bank	+ 810 (= 0.9 × \$900)
Fourth Bank	+ 729 (= 0.9 × \$810)
.	+ .
.	+ .
.	+ .
Total change in checking account deposits	= \$10,000

- Each "round", the additional checking account deposits get smaller and smaller.
- Every round, 10 percent of the deposits are kept as reserves.
- This allows us to tell by how much the checking deposits will eventually increase: the \$1,000 in currency will become the 10 percent required reserves for all of the checking deposits, so a total of \$10,000 in checking deposits can be created.

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DEPOSITS MULTIPLYING

An alternative way to find out how much money the original \$1,000 in currency will create is to add up all of the checking account deposits.

$$\begin{aligned}
 & \$1,000 + [0.9 \times \$1,000] + [(0.9 \times 0.9) \times \$1,000] + \dots \\
 & = \$1,000 + [0.9 \times \$1,000] + [0.9^2 \times \$1,000] + \dots \\
 & = \$1,000(1 + 0.9 + 0.9^2 + \dots) \\
 & = \$1,000 \left(\frac{1}{1-0.9} \right) \\
 & = \$1,000 \left(\frac{1}{0.10} \right) \\
 & = \$1,000(10) = \$10,000
 \end{aligned}$$

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SIMPLE DEPOSIT MULTIPLIER

$$\begin{aligned}
 \text{Simple Multiplier} &= \$1,000 \left(\frac{1}{0.10} \right) \\
 &= \$1,000(10) = \$10,000
 \end{aligned}$$

- So the total increase in deposits is $\$1,000(10) = \$10,000$.
- The "10" here is the **simple deposit multiplier**: the ratio of the amount of deposits created by banks to the amount of new reserves.
- In general, we can write the simple deposit multiplier as:
- Simple deposit multiplier = $\frac{1}{RR}$
- So with a 10 percent required reserve ratio (RR), the simple deposit multiplier is 10.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

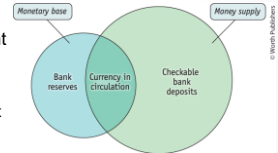
THE CHAIN OF MULTIPLE DEPOSIT CREATION ONCE MORE

		Running Sums		
		(1) Reserves	(2) Deposits	(3) Loans
\$100,000 deposit			\$100,000	
\$20,000 on reserve	\$80,000 lent out	\$20,000		\$80,000
\$80,000 deposit			\$180,000	
\$16,000 on reserve	\$64,000 lent out	\$36,000		\$144,000
\$64,000 deposit			\$244,000	
\$12,800 on reserve	\$51,200 lent out	\$48,800		\$195,200
\$51,200 deposit			\$295,200	
\$10,240 on reserve	\$40,960 lent out	\$59,040		\$236,160
\$40,960 deposit			\$336,160	
\$8,192 on reserve	\$32,768 lent out	\$67,232		\$268,928
And so on . . .				
		\$100,000	\$500,000	\$400,000

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THE MONEY MULTIPLIER IN REALITY (1/2)

- The **monetary base** is the sum of currency in circulation and bank reserves.
- The monetary base is different from the money supply in two ways:
 - Bank reserves, which are part of the monetary base, aren't part of the money supply.
 - Checkable bank deposits, which are part of the money supply, aren't part of the monetary base.



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THE MONEY MULTIPLIER IN REALITY (2/2)

- The **money multiplier** is the ratio of the money supply to the monetary base.
- Before the financial crisis of 2008, it was 1.6; after the crisis, it was 0.7.
- The minimum reserve ratio is 10%. Why is the money multiplier not $1/0.1 = 10$?
- People hold significant amounts of cash, which reduces bank deposits.

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THE FEDERAL RESERVE SYSTEM

- The **Federal Reserve** is a central bank; it oversees and regulates the banking system and controls the monetary base.
- Jerome Hayden "Jay" Powell** is the 16th and current Chairman of the Federal Reserve, serving in that office since February 2018.



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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

WHERE ARE THE FEDERAL RESERVE BANKS?

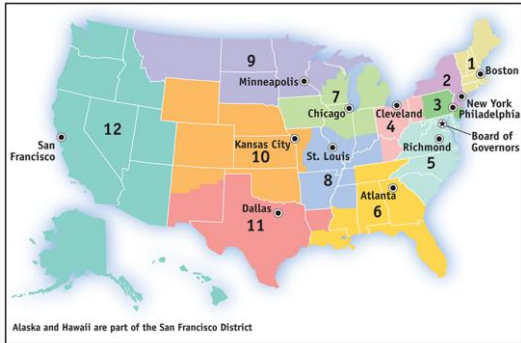
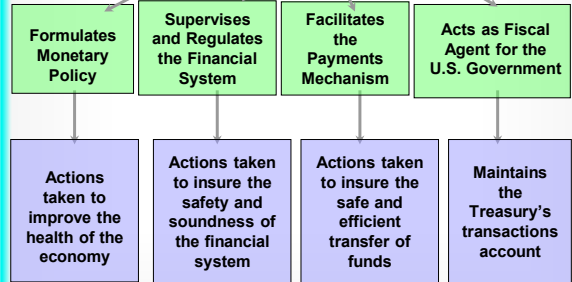


FIGURE 14-6 Krugman/Wells, Macroeconomics, 5e, © 2018 Worth Publishers
Data from: Board of Governors of the Federal Reserve System.

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FUNCTIONS OF THE FED



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RESERVE REQUIREMENTS AND THE DISCOUNT RATE

- The **discount rate** is the rate of interest the Fed charges on loans to banks.
- Normally, the discount rate is set 1 percentage point above the federal funds rate in order to discourage banks from turning to the Fed when they are in need of reserves.



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WHAT THE FED DOES: RESERVE REQUIREMENTS AND THE DISCOUNT RATE

- The three tools of the Fed:
 - reserve requirements,
 - the discount rate,
 - open-market operations.
- The Fed sets a minimum reserve ratio requirement.
- If a bank can't meet the Fed's reserve requirement, it can borrow reserves at the federal funds market.
 - The **federal funds market** allows banks that fall short of the reserve requirement to borrow funds from banks with excess reserves.
 - The **federal funds rate** is the interest rate in the federal funds market.
- Alternatively, banks can borrow from the Fed via the discount window.
 - The **discount rate** is the interest rate the Fed charges on those loans.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

OPEN-MARKET OPERATIONS AND REVERSE REPO OPERATIONS (1/3)

- Like any bank, the Federal Reserve has assets and liabilities.
- The Fed's assets are mainly short-term U.S. government bonds, known as U.S. Treasury bills.
- The Fed's liabilities are currency in circulation and bank reserves.

Assets	Liabilities
Government debt (Treasury bills)	Monetary base (currency in circulation + bank reserves)

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OPEN-MARKET OPERATIONS AND REVERSE REPO OPERATIONS (2/3)

- In an **open-market operation** the Federal Reserve buys or sells U.S. Treasury bills, normally through a transaction with commercial banks (banks that accept deposits and make loans), and investment banks (banks that create and trade assets but don't accept deposits).
- The Fed never buys U.S. Treasury bills directly from the federal government.
 - If it did, it would be printing money to fund the budget deficit, which would trigger inflation.

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OPEN-MARKET OPERATIONS AND REVERSE REPO OPERATIONS (3/3)

Panel (a):

- The Fed buys \$100 million of T-bills from banks.
- The Fed electronically increases the sellers' reserves.
- With more reserves, banks increase loans.
- As banks increase loans, the money supply increases via the money multiplier.

(a) An Open-Market Purchase of \$100 Million

	Assets	Liabilities
Federal Reserve	Treasury bills +\$100 million	Monetary base +\$100 million
Commercial banks	Treasury bills -\$100 million Reserves +\$100 million	No change

Panel (b):

- The Fed sells \$100 million of T-bills to banks, decreasing the banks' reserves.
- With fewer reserves, banks decrease loans.
- As banks decrease loans, the money supply decreases via the money multiplier.

(b) An Open-Market Sale of \$100 Million

	Assets	Liabilities
Federal Reserve	Treasury bills -\$100 million	Monetary base -\$100 million
Commercial banks	Treasury bills +\$100 million Reserves -\$100 million	No change

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LEARN BY DOING PRACTICE QUESTION 4

Assets	Liabilities
Required reserves \$100	Deposits \$1,000
Loans \$400	
Treasury bills \$800	

Suppose this is the only bank and all money is held in this bank. There are no excess reserves. If the Fed makes an open-market sale of T-bills worth \$50 to this bank, what will happen to the money supply after all adjustments are made?

- The money supply will increase by \$50.
- The money supply will decrease by \$50.
- The money supply will increase by \$500.
- The money supply will decrease by \$500.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

LEARN BY DOING PRACTICE QUESTION 4 (Answer)

Assets		Liabilities	
Required reserves	\$100	Deposits	\$1,000
Loans	\$400		
Treasury bills	\$800		

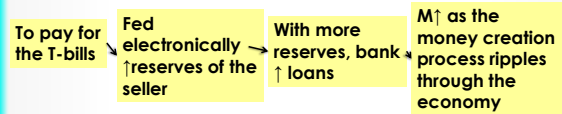
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 - The money supply will increase by \$50.
 - The money supply will decrease by \$50.
 - The money supply will increase by \$500.
 - The money supply will decrease by \$500. (correct answer)**

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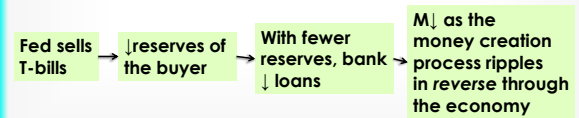
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HOW OPEN-MARKET OPERATIONS WORK ONCE AGAIN

If the Fed wants to increase the money supply, it will buy T-bills:



If the Fed wants to decrease the money supply, it will sell T-bills:



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THE EUROPEAN CENTRAL BANK (1/2)

- The European Central Bank (ECB) rivals the Fed in terms of importance to the world economy.
 - Was created in January, 1999, when 11 European nations abandoned their national currencies, adopted the euro, and placed their joint monetary policy in the ECB's hands.
 - Located in Frankfurt, Germany.
 - Represents a (combined) economy as large as that of the United States.

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THE EUROPEAN CENTRAL BANK (2/2)

- Analogies between ECB and the Fed:
 - Europe's national banks (the Bank of France, the Bank of Italy, etc.) are like regional Feds: they provide financial services to local banks and businesses and conduct open-market operations.
 - The counterpart of Fed's Board of Governors is the ECB's Executive Board.
 - The counterpart of the Federal Open Market Committee is the ECB's Governing Council.
 - Just as the Fed's Open Market Committee consists of the Board of Governors plus a rotating group of regional Fed presidents, the ECB's Governing Council consists of the Executive Board plus the heads of the national central banks.
 - Like the Fed, the ECB is ultimately answerable to voters, and it tries to maintain its independence from short-term political pressures.

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

THE EVOLUTION OF THE AMERICAN BANKING SYSTEM

- The crisis in American banking in the early twentieth century
- The main problem afflicting the system was that **the money supply was not sufficiently responsive**: It was difficult to shift currency around the country to respond quickly to local economic changes.
- **Bank panics (bank runs) were too common.**
- *The Panic of 1907: a foreshadowing of the financial crisis of 2008? Large losses from risky speculation destabilized the banking system.*

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THE CREATION OF THE FEDERAL RESERVE

- The panic of 1907 convinced many that the time for central control of bank reserves had come.
- In 1913 the Federal Reserve was created.
- Now bank reserves were centralized and standardized—but not immune to bank runs.
 - *A series of bank runs in 1930, 1931, and 1933 convinced the Fed that banks needed more regulation.*

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THE GLASS-STEAGALL ACT

- Another new regulation, the **Glass-Steagall Act (1933)** separated banks into two categories:
 - **Commercial banks**: depository banks that accepted deposits and were covered by deposit insurance
 - **Investment banks**: banks that engaged in creating and trading financial assets (stocks and corporate bonds), but were not covered by deposit insurance because their activities were considered riskier

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THE SAVINGS AND LOAN CRISIS OF THE 1980S

- The savings and loan (thrift) crisis of the 1980s **arose because Congress deregulated S&Ls**, allowing them to engage in **risky speculation**.
 - **The intent was to allow them to offer higher rates of return, like banks, in an era of high inflation.**
 - **They incurred huge losses.**
- Depositors in failed S&Ls were compensated with taxpayer funds because they were covered by deposit insurance.
- **The crisis caused steep losses in the financial and real estate sectors, resulting in a recession in the early 1990s.**

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CHAPTER 14 LECTURE - MONEY, BANKING, AND THE FEDERAL RESERVE SYSTEM

THE FINANCIAL CRISIS OF 2008 PRELIMS

- During the mid-1990s, the hedge fund **LTCM** (Long-Term Capital Management) used huge amounts of leverage to speculate in global financial markets, incurred massive losses, and collapsed.
 - **Leverage**: financing an investment with borrowed funds.
- LTCM was so large that it caused **balance sheet effects** for firms globally, leading to the prospect of a **vicious circle of deleveraging**.
 - **Balance sheet effect**: the reduction in a firm's net worth due to falling asset prices

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THE FINANCIAL CRISIS OF 2008

- **Vicious circle of deleveraging**: asset sales to cover losses forcing creditors to call in their loans, forcing sales of more assets and causing further declines in asset prices
- As a result, **credit markets around the world froze**. The New York Fed coordinated a private bailout of LTCM and revived world credit markets.
- **2008—The worldwide financial system was in crisis, and banks and other financial institutions wanted to borrow more than \$2 trillion. What could be done?**

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THE FINANCIAL CRISIS OF 2008

- **Subprime lending helped create the U.S. housing bubble** of the 2000s and was made worse with **securitization**.
 - **Subprime lending**: lending to home buyers who don't meet the usual criteria for being able to make the payments
 - **Securitization**: a pool of loans assembled and shares of it sold to investors
- **When the bubble burst, massive losses by banks and other financial institutions led to widespread collapse in the financial system.**
- To prevent another Great Depression, the **Fed and the U.S. Treasury expanded lending** to banks and other financial institutions, provided capital through the purchase of bank shares, and purchased private debt

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REGULATION AFTER THE 2008 CRISIS

- In July 2010, President Obama signed the **Dodd-Frank Act (the Wall Street Reform and Consumer Protection Act)**.
 - Gives a special government committee, the **Financial Stability Oversight Council**, the right to designate institutions as “systemically important” and thus subject to normal bank regulation (even though they are not traditional banks).
 - Established new rules on the trading of derivatives: They must now be traded in exchanges so their prices and volume are more transparent.

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