

100 YEARS OF THE FEDERAL RESERVE SYSTEM

Defining Moments in Federal Reserve System History: 1907–1935

The Federal Reserve System Shuffle

A Federal Reserve Centennial Lesson that illustrates change over time
1945–1987

The Modern Federal Reserve System

Changes and trends in Federal Reserve functions

FRS Centennial Lesson Plans



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Lesson Description

This lesson presents a history of Federal Reserve events and milestones from 1907 to 1935. Defining events are highlighted by a reader's theater to help students better understand the time period. After each reader's theater scene, students write key information in a Centennial Journal to track the events and their historical impact. Students then complete a handout requiring them to explain the Federal Reserve's role in the key events during this period and how the Federal Reserve has changed over time. Students' learning is assessed by their completion of an essay on the Federal Reserve System's ability to promote stable prices and economic growth over time.

Grade Level

9–12

Standards and Benchmarks

See page 26

Concepts

Advice and consent
Commercial banks
Economic growth
Federal Open Market Committee (FOMC)
Governor
Independent central bank
Investment banks
Lender of last resort
Liquidity
Monetary policy
Money supply
Open market operations
Reserves
Reserve requirements
Securities (Treasury)
Speculators
Unemployment

Objectives

Students will be able to:

- identify how the Federal Reserve's role, functions, and tools have remained consistent and/or changed over time using a reader's theater and Federal Reserve System concept bank;
- discuss the impact of innovation in the banking industry; and
- examine the relevance and evolution of the Federal Reserve System as an independent central bank.

Time Required

Two 45-minute class periods

Materials

- Handouts 1, 2, 4, and 5, one copy of each for each student
- Handout 3 cut into cards
- Name tags for reader's theater characters
- Microphone for Econ Ed (optional)

Procedures

1. Ask students if they know how banks get their currency and coin. Explain that banks get their currency and coin from the Federal Reserve, also called the Fed, which is the central bank of the United States. The Federal Reserve has this function and several others that make it important to the U.S. economy. Explain the following:
 - The Federal Reserve operates the country's payment system. The Federal Reserve includes 12 regional Reserve Banks that maintain accounts for **commercial banks**, process checks, and operate a system for electronic transfers of money between accounts, which allows bank customers to use electronic tools, such as debit cards, to make purchases and withdraw money from their accounts.
 - The Federal Reserve supervises state-chartered member banks to ensure that they operate in a safe and sound manner. National banks, all of which are also Fed members, are supervised by the Office of the Comptroller of the Currency, which is part of the U.S. Department of the Treasury. State-chartered banks that are not members of the Federal Reserve System are supervised by the Federal Deposit Insurance Corporation (FDIC) and state banking authorities.
 - The Federal Reserve serves as banker for the U.S. Treasury. The federal government has accounts with the Federal Reserve, which are used to pay the government's bills.

2. Explain that the Federal Reserve Act that established the Federal Reserve System was passed by Congress in 1913 and signed into law by President Woodrow Wilson. The Reserve Banks opened for business in 1914. In 2013-14, the Federal Reserve is celebrating its centennial—100 years of service to Americans.
3. Explain that there have been many defining moments in Federal Reserve history over the past 100 years and that students will participate in a reader's theater to better understand the importance of some key events that took place in the early history of the Fed.
4. Distribute *Handout 1: Federal Reserve System Concept Bank* and explain that this lesson introduces terms with which the students may not be familiar. Have students take turns reading definitions out loud and provide the additional explanations below for some of the terms.
 - **Advice and consent – Part of the process for nominating people to executive and judicial posts.**
Under the Constitution, presidential nominations for executive and judicial posts take effect only when confirmed by the Senate.
 - **Commercial banks – Financial institutions that accept deposits and make loans to individuals and businesses.**
 - **Economic growth – A sustained rise over time in a nation's production of goods and services.**
Explain that economic growth is a key indicator of the health of an economy. When economic growth is positive, the economy is producing more goods and services than it did in the preceding period. This growth means there are more goods and services available for consumers to enjoy. If economic growth is negative, the economy is producing fewer goods and services than it did in the preceding period.
 - **Federal Open Market Committee (FOMC) – The Federal Reserve's chief body for conducting monetary policy.**
Explain that the FOMC consists of the Board of Governors and 5 of the 12 Federal Reserve Bank presidents. Fed presidents rotate on and off the Committee at regular intervals. All 12 Reserve Bank presidents attend every meeting of the FOMC and participate in the deliberations, whether they are currently voting members or not.
 - **Governor – The head of the Federal Reserve Regional Banks, later titled president.**
Currently, members of the Federal Reserve System Board are referred to as governors.
 - **Independent central bank – A central bank enacting monetary policy, free from the dictates of legislators.**
Explain that the Federal Reserve is the central bank of the United States. One of its responsibilities is to conduct monetary policy for the purpose of keeping prices stable and maximizing employment, which are objectives given to the Fed by Congress. However, the Fed has the independence to determine how best

to achieve these objectives without political interference. Central bank independence enables the Fed to focus on the long-run performance of the economy.

- **Investment banks – Financial intermediaries that help corporations raise money by assisting those corporations in selling stock or debt securities (bonds) to investors.**

Explain that when a company wants to raise money to expand its operations, it might decide to let other people become part owners by selling stock. It is difficult for companies to do this on their own because the prospective buyers of the stock may not trust that the company is stable and a sound investment. Investment banks research the company and provide reports that describe everything about the company so that potential owners have the information needed to make a sound decision. Investment banks also help businesses borrow money by issuing bonds. Bonds are like IOUs that people purchase and hold for a certain amount of time. When that time is up and the bond has matured, the bondholder is paid back. Investment banks receive a fee for these services.

- **Lender of last resort – The Federal Reserve’s role in providing short-term loans to financial institutions or markets to help calm financial panics.**

Explain that when banks want to borrow money, they usually borrow from other banks. However, when there is a financial panic, banks may be unwilling to lend to one another. The Federal Reserve makes loans available to banks to ensure that banks have enough liquidity to operate until the crisis is over.

- **Liquidity – The quality that makes an asset easily convertible into cash with relatively little loss of value in the conversion process.**

Explain that many things have monetary value, such as a house, a car, stocks, a checking account, and baseball cards. Some of these items of value can be used right away to make a purchase. For example, a checking account can be used immediately to buy anything from a cup of coffee to a car (provided the balance in the account is sufficient). However, even though a house may have a large monetary value, it cannot be used immediately to buy coffee or a car. It takes time to find a buyer for a house and to transfer ownership. Only then can someone use the house to make purchases. A checking account is easily converted into cash, so it has high liquidity. A house is not easily converted into cash, so it has low liquidity.

- **Monetary policy – Central bank actions involving the use of the interest rate or money supply tools to achieve such goals as maximum employment and stable prices.**

Explain that one problem in an economy could be an increase in the average level of prices. This happens when, for a given stock of goods and services, an increase in the amount of money in circulation causes prices to be bid up as firms raise prices to maximize their profits. A sustained increase in the average price level for goods and services is referred to as “inflation.” Because inflation imposes costs on society, the Fed responds to it by tightening monetary policy to raise interest rates and slow the growth of the money supply in an effort to reduce the demand for goods and services and slow the increase in the price level.

- **Money supply – The quantity of money available in an economy.**
The basic money supply in the United States consists of currency, coins, and checking account (demand) deposits. Also known as money stock.
- **Open market operations – The buying and selling of government securities by the Federal Reserve to control the money supply.**
Explain that one way the Fed enacts monetary policy is through open market operations. If the Fed sells a government security, the buyer pays for the security with money. That means the person or institution that bought the security now has less money, so there is less money in the economy to buy goods and services. The Fed might sell government securities when it sees the average level of prices increasing.
- **Reserve requirement – The percentage of a bank's deposits it is required by law to hold, either as cash in its vault or on deposit with the Federal Reserve.**
Explain that bank deposits in excess of those held as required reserves, termed excess reserves, may be lent to customers.
- **Reserves – The sum of cash that banks hold in their vaults and the deposits they maintain with Federal Reserve Banks.**
Explain that some of the students in the class may have checking accounts, as well as some money tucked away in a bank in their bedroom or kept as cash in their wallets. Reserves are banks' version of the checking account and the money kept in a bank in a bedroom. Just as people have accounts at a local bank, the local bank may keep an account at a Federal Reserve Bank.
- **Securities (Treasury) – Certificates of indebtedness issued by the Department of the Treasury on behalf of the U.S. government.**
Explain that in more general financial terms, securities include corporate bonds, which are issued to people who lend the corporation money. The term can also mean stocks, which are issued to people and institutions who buy part ownership in a company.
- **Speculators – People who take large financial risks in search of large rewards.**
- **Unemployment – A condition where people are without jobs and actively seeking work.**
Explain that only people who are not working but are seeking work are considered unemployed. People who are retired or choose to stay home with children are not considered unemployed (similarly, students are not considered unemployed).

5. Distribute a copy of *Handout 2: Reader's Theater* to each student. Assign roles as follows: Econ Ed (assign a different Ed for each of the five scenes); Mr./Ms. Moneybucks; Senator Politico; Mr./Ms. Educator; Mr./Ms. Farmer; Mr./Ms. Director. Give name tags to the characters and designate an area of the classroom as the stage. Direct students to remain seated and take the stage only for their character's scene.

6. Distribute cards cut from *Handout 3: Concept Cards* to 16 students. Point out that the scenes in which these concepts appear are shown on the card. Students should take the stage only for scenes in which their concepts are discussed. Tell students when they hear their concept mentioned during the reader's theater, they are to move to the front of the readers, state their term, and read the definition aloud. When finished, the student holding the concept card is to move to the rear and all action can resume. Direct the readers to freeze the action whenever they arrive at a word in bold text to allow the definition of that concept to be read.
7. Distribute *Handout 4: Centennial Journal* to each student. Tell students to follow each scene carefully because they will be summarizing four historic events and their importance in Fed history. Begin the reader's theater, stopping at the end of each scene so that students can complete their Centennial Journal. Read through as many scenes as possible on Day 1. On Day 2, continue the reader's theater until all scenes and journal entries are completed.
8. Distribute *Handout 5: Key Moments in Federal Reserve System History* to each student, directing them to use their scripts and journals to assist them in completing the handout.
9. Distribute *Handout 6: Assessment Essay*. Review the instructions:
Use the information from the lesson to write a short essay as directed in the prompt. Your essay should be five paragraphs long, include an introduction and conclusion, and contain specific examples to support your arguments.

Prompt: How did the structure and responsibilities of the Federal Reserve evolve over time to promote the following?

- Stable prices
- Economic growth
- An independent central bank, free from the dictates of legislators

Handout 1: Federal Reserve System Concept Bank

Advice and consent – Part of the process for nominating people to executive and judicial posts

Commercial banks – Financial institutions that accept deposits and make loans to individuals and businesses.

Economic growth – A sustained rise over time in a nation's production of goods and services.

Federal Open Market Committee (FOMC) – The Federal Reserve's chief body for conducting monetary policy.

Governor – The head of the Federal Reserve Regional Banks, later titled president. Currently, members of the Federal Reserve System Board are referred to as governors.

Independent central bank – A central bank enacting monetary policy, free from the dictates of legislators.

Investment banks – Financial intermediaries that help corporations raise money by assisting those corporations in selling stock or debt securities (bonds) to investors.

Lender of last resort – The Federal Reserve's role in providing short-term loans to financial institutions or markets to help calm financial panics.

Liquidity – The quality that makes an asset easily convertible into cash with relatively little loss of value in the conversion process.

Monetary policy – Central bank actions involving the use of the interest rate or money supply tools to achieve such goals as maximum employment and stable prices.

Money supply – The quantity of money available in an economy.

Open market operations – The buying and selling of government securities by the Federal Reserve to control the money supply.

Reserve requirement – The percentage of a bank's deposits it is required by law to hold, either as cash in its vault or on deposit with the Federal Reserve.

Reserves – The sum of cash that banks hold in their vaults and the deposits they maintain with Federal Reserve Banks.

Securities (Treasury) – Certificates of indebtedness issued by the Department of the Treasury on behalf of the U.S. government.

Speculators – People who take large financial risks in search of large rewards.

Unemployment – A condition where people are without jobs and actively seeking work.

Handout 2: Reader's Theater

Defining Moments in Federal Reserve System History

Act 1: 1907-1935

Scene 1: Outside the Federal Reserve Board of Governors Building in Washington, D.C.

Characters: Econ Ed, economics newscaster; Mr./Ms. Moneybucks, retired banker

Econ Ed: Hello, America! This is Econ Ed, your favorite economic newscaster, reporting live from our nation's capital, Washington, D.C. Welcome to tonight's broadcast, "The Centennial of the Federal Reserve: Not Just Your Average Bank!" Join us as we celebrate 100 years of Fed history in a unique and exciting way. Through NASA's latest initiative, the Time Travel Trekker, we'll journey back to earlier days and learn firsthand about the Fed's impact on our country. I'll interview folks who lived through those historic times to get up-close-and-personal accounts of defining moments in Fed history. Ready to trek? Our first interview takes us to 1914 to meet Mr./Ms. Moneybucks, a retired banker with insight on the early days of the Federal Reserve. Greetings, Mr./Mrs. Moneybucks.

Moneybucks: Hello there, Ed! I hope I can help your audience better understand the founding and early development of the Federal Reserve System.

Econ Ed: Mr./Ms. Moneybucks, let's go back several years to the Bank Panic of 1907. Do you remember what happened during that time period to **commercial banks**?

Moneybucks: You bet I do! I was a bank officer at the Mercantile Bank in New York at the time. We got news that poor investments were made by stock market **speculators**. For example, some of these speculators were the Heinze brothers, who had tried and failed to capture a corner of the copper market. Some banks, such as the Knickerbocker Trust Company, had lent lots of money to speculators. And, because of huge speculator losses, depositors feared that that bank was on the verge of collapse. This fear spread and there were runs on many other U.S. banks as well. See, banks keep only a certain percentage of their deposits on hand; the rest is lent out or invested to turn a profit. Knowing this, folks flocked to the banks to get their own money before it could be lost too. There were lines of angry customers for days!

Econ Ed: That must have been rough! Did anyone come forward to help depositors during the turmoil?

Moneybucks: That wealthy banker, J.P. Morgan, and his banking committee agreed to bail out certain banks if an audit showed the banks to be solvent—that is, financially sound. Also that oil tycoon, J. D. Rockefeller, was willing to lend \$10 million to try to stabilize the banking system. Still, banks were hurting. See, even though some of the banks were healthy institutions, they had problems with **liquidity**. Because of the low liquidity of banks' investment and loans, they couldn't immediately convert them into cash to satisfy depositors' demands, especially during a bank run.

Econ Ed: What about the U.S. Treasury? Didn't the government care about depositors who were losing their money?

Moneybucks: Well, the Treasury eventually did take action to shore up bank finances. Secretary Cortelyou pledged \$25 million to lend to banks in trouble.

Econ Ed: Wow! How did it all end?

Moneybucks: Morgan and his crew arranged for additional bailout funds, and the banking crisis finally subsided. But everyone was still upset over their bank losses and the lack of supervision in our financial system that allowed such losses to happen. Soon after, legislation was passed so the Treasury could issue emergency currency when banks experienced a short-term liquidity problem. That is, the Treasury could lend banks money when banks needed more cash on hand during an emergency. The legislation also established the National Monetary Commission, which researched the problems in the U.S. banking system and compared our system with those in other countries.

Econ Ed: Ahh! The start of the Federal Reserve!

Moneybucks: Not quite! But it did set the stage for the Federal Reserve Act, which followed in 1913. To get the inside story on that event, you need to interview my friend, Senator Politico.

Econ Ed: Will do! Well time travelers, let's trek on to meet the good senator and further our knowledge of defining Fed moments. On to Capitol Hill...

Scene 2: Outside the Capitol Building in Washington, D.C.

Characters: Econ Ed, economics newscaster; Senator Politico, member of congress

Econ Ed: Whoosh! Gotta love that time travel! It's now 1920 and here comes the senator now. Hello, Senator Politico! Would you be willing to share your insights on the development and signing of the Federal Reserve Act?

Senator: Hello! I'm on my way to an important congressional vote, but I have a few minutes to explain how the act came to be. It was quite a battle!

Econ Ed: Really? I didn't know combat was involved.

- Senator:** Verbal combat, my man, between the Republicans and Democrats! They argued about the number of regional Reserve Banks, the makeup of the Federal Reserve Board, the amount of influence bankers should have. You name it, they fought about it!
- Econ Ed:** So, which congressional members were the key players in this battle?
- Senator:** Well, let's see. Once President Wilson was elected, Representative Carter Glass from Virginia got the ball rolling. We also elicited expert advice from H. Parker Willis, an economics professor from Washington and Lee University. They favored regional control with up to 20 banks because they believed that regional bankers should have more power than the government.
- Econ Ed:** What did President Wilson think of that?
- Senator:** Wilson was wise enough to know that Congress and the public wouldn't like a plan that gave the government little control. So he added the idea of a centralized government board made up of presidential appointees to oversee the Federal Reserve.
- Econ Ed:** That change should have pleased those who wanted more government input. So was it was a done deal after that addition?
- Senator:** There was still debate—you know politicians, it's never easy to compromise! Then Senator Robert Owen from Oklahoma submitted a revised bill suggesting 8 to 12 regional Reserve Banks. Other differences were slowly hammered out and the final bill was signed by President Wilson on December 23, 1913.
- Econ Ed:** So, Senator, can you fill us in on just how this bill represents a compromise?
- Senator:** Sure. This compromise structured a seven-member Federal Reserve Board, which is a government board charged with overseeing regional Banks. Board members are appointed by the president with the **advice and consent** of the Senate and serve 10-year staggered terms. That way, members' terms are not all up at once, which adds both continuity and variety in political and economic viewpoints.
- Econ Ed:** What about the regional Banks? Where do they fit into the bill?
- Senator:** Excellent question. The central authority of the board is balanced by regional authority through the establishment of 12 regional Reserve Banks. Each regional Bank has its own board of directors composed of bankers and business leaders from within that Federal Reserve region. These regions are also known as districts. Each board of directors chooses its own leader to head its Bank, and this leader is called a **governor**. The role of these regional Banks is to provide **liquidity** to foster confidence in the banking system. Because of this role, the Federal Reserve is considered the **lender of last resort**. So, the Federal Reserve is a blend of public and private interests.

- Econ Ed:** So the central government doesn't have total control, and the regional Banks don't have total control either. Interesting!
- Senator:** The bill provided another essential role for the Fed by allowing it to house the U.S. government's money and act as the nation's banker.
- Econ Ed:** So the Federal Reserve was up and running!
- Senator:** Not yet. The bill laid the foundation, but there were many hurdles to face. We had to decide which cities should have regional Banks. Talk about controversy! Seems every city wanted a Federal Reserve Bank. It took another year for the 12 cities to finally be chosen. The Fed was officially open for business as the next hurdle presented itself—World War I.
- Econ Ed:** Ah, yes! Can you tell us how the Fed responded to that challenge?
- Senator:** Sorry, I'm overdue for the congressional vote! I recommend talking to Mr./Ms. Educator, my former history teacher, to shed some light on the subject.
- Econ Ed:** Thanks, Senator! Okay, fellow historians, let's time travel to 1928 to see if we can catch Mr./Ms. Educator for a look at the Fed's support in funding U.S. involvement in World War I. Hang on to your hats...

Scene 3: Outside Thomas Jefferson High School

Characters: Econ Ed, economic newscaster; Mr./Ms. Educator, history teacher

- Econ Ed:** Hello, Mr./Ms. Educator. Do you have time to share your thoughts about World War I from the Fed's perspective?
- Educator:** Certainly. Teaching history is my job, so I'd love to share what I know.
- Econ Ed:** What role did the Fed play during the war?
- Educator:** Well, once the U.S. entered WWI in 1917, the government needed a way to finance U.S. participation. The Treasury decided to sell Liberty Bonds to citizens as a way to support the war effort. Americans felt it was their patriotic duty to invest in bonds to help U.S. soldiers overseas. I personally bought bonds during each of the four government-issue periods. I wanted to do my part!
- Econ Ed:** Of course. And where does the Fed come into this story?
- Educator:** The Fed kept interest rates low to help banks keep the cost of borrowing low. Low rates encouraged people to borrow money and increased the amount of cash circulating in the economy and provided an incentive to invest in Liberty Bonds. This was the first introduction to bonds for many people. I think this also helped people accept the idea of the Fed's later use of **open market operations**, which is purchasing or selling government **securities**, as a **monetary policy** tool.

- Econ Ed:** Would you share the skinny version of exactly what monetary policy is?
- Educator:** Well, in short, monetary policy is essentially the actions a central bank takes to try to influence the cost of credit, that is, interest rates on loans, by affecting the **money supply**. To affect the money supply, the Fed buys and sells government securities, which changes the amount of money banks have available for lending. This money is called **reserves**. When banks have more money for lending—more reserves—interest rates fall and they tend to offer more loans. Here’s how it works: When the Fed buys government securities, the money they pay to sellers is deposited into the sellers’ bank accounts, providing more money for banks to lend—more reserves. The opposite occurs when the Fed sells securities. When it sells government securities, buyers take money from their banking accounts to pay the Fed, making less money available for lending. In this case, interest rates rise and banks tend to offer fewer loans.
- Econ Ed:** Okay, thanks! Now that we have that straight, please tell us how monetary policy became one of the key responsibilities of the Fed.
- Educator:** Well, Benjamin Strong, head of the Federal Reserve Bank of New York, helped combat a weak economy in 1922 by purchasing Treasury securities. As you just learned, these purchases increase bank reserves, which banks want to lend to their customers. Competition among banks to make loans tends to lower interest rates. This policy approach helped to encourage economic recovery. Treasury securities are U.S. government debt, or in other words, loans to the government. Since open market operations were successful, the Fed added this new monetary tool to its toolbox to help moderate the bust-and-boom business cycles. The Fed had arrived and added new duties far beyond being the emergency **lender of last resort**. Not to mention our status overseas.
- Econ Ed:** So the Fed became well known internationally?
- Educator:** You bet your boots! Strong visited the European central banks to offer Fed assistance. The Fed then cooperated with foreign central banks to promote international financial stability during this period.
- Econ Ed:** Wow! The Fed was proving its worth. Good news for sure!
- Educator:** To sum it up, the 1920s have been a roaring success so far. We’ve had steady **economic growth**. And we’ve had fairly stable prices, too. It’s been great chatting with you, but I need to go—my tests won’t grade themselves, you know!
- Econ Ed:** Take care, Mr./Ms. Educator! Thanks for the Fed history highlights. Well, viewers, we have another time travel stop to make—and this scene won’t be pretty. We are about to look firsthand at the Great Depression and the Fed’s response to this monumental event. Take a deep breath, here we go...

Scene 4: An Oklahoma Farm in the 1930s

Characters: Econ Ed, economics newscaster; Mr./Ms. Farmer, owner of an Oklahoma farm

Econ Ed: Hello, my name is Econ Ed and I'm here to find out about the problems our nation has been experiencing during the '30s. Do you have time to answer a few questions?

Farmer: Well, if you want to talk about problems, you've come to the right place! There's been nothing but problems on this farm since 1930. And now I may lose my land.

Econ Ed: Could you tell us how this all came about?

Farmer: Well, in 1930, we started hearing rumors that our money wasn't safe in the bank. I was nervous about having enough cash on hand to pay my bills, so I went down to the bank to take my money out. Problem was, everybody else had the same idea and our bank ran out of money and closed its doors. Then a banker came to visit and demanded I repay my farm equipment loan. There's no way I had the funds to do that...and I wasn't the only one!

Econ Ed: So financial difficulties hit people hard?

Farmer: Something really hurting our country right now is **unemployment**. I've heard the unemployment rate is close to 25 percent! Since so many people are out of work, they can't make their payments and many are losing their homes and property. Of course, they also have to cut back on food purchases. So now my pigs and corn are selling for almost nothing. And this means I can't make my payments! When the prices of a country's goods and services fall as much as 10 percent a year, like they are now, it's unbearable for most businesses.

Econ Ed: What other problems have you faced?

Farmer: Well, it seems Mother Nature has become our enemy. They call this area the Dust Bowl because of our extreme drought. When the wind picks up my dry soil and whips it around, you can't see more than a few feet in front of you!

Econ Ed: Wow, you can't get a break! How has the government helped in this awful situation?

Farmer: Well, at first, President Hoover said he thought federal relief was unnecessary. Instead, he favored relief provided by the state and local governments and private agencies. He also tried to persuade big business not to cut wages. And when the unemployment rate increased and so many banks and businesses failed, he tried to step in to help. But by then, too much damage had already been done.

Econ Ed: I'd like to focus on the Federal Reserve's role in all of this. Do you know if the Fed has aided the country during this troubled time?

Farmer: What I’ve heard is that the Fed has kept interest rates high when they should have kept them low to help businesses and consumers borrow money to stay afloat. They started this policy in 1928 to help stop bank lending to stock market **speculators**. This, as they say, only “gummed up the works.” If the Fed would have increased the money supply, banks would have had more money to lend and interest rates would have come down. People would have borrowed more money and demanded more goods and services. Prices would have stopped falling. But, instead, the Fed let the amount of money in circulation fall. This only caused more banks to fail.

Econ Ed: What was the response to the Fed’s inaction?

Farmer: Newspapers say that Fed officials are simply “bumping gums”—offering plenty of talk but no action. It seems the Fed thinks that by letting weak banks fail and discouraging unhealthy stock market speculation, the economy will eventually fix itself. But in my opinion, the Fed hasn’t been much help at all. I hope they “shake a leg” and figure this mess out real soon!

Econ Ed: It sounds like the Fed has missed a real opportunity to stabilize the nation’s economy. I hope the Fed has learned a few lessons based on this experience. Thanks so much for your time today, Mr./Ms. Farmer. Hopefully your luck will change soon! Okay, time trekkers, it’s time to learn about another Fed-defining moment. We’re off to 1935 to learn about the positive impact of banking legislation in the 1930s.

Scene 5: Outside the Federal Deposit Insurance Corporation (FDIC) Headquarters in Washington, D.C.

Characters: Econ Ed, economics newscaster; Mr./Ms. Director, member of the FDIC Board of Directors

Econ Ed: We’ve just landed in the perfect location for our final interview of the day. We’re outside the FDIC building, a prime spot for discussing the Banking Acts of 1933 and 1935, laws that further enhanced Fed authority and independence. In fact, here comes the person we’re looking for. Excuse me, Mr./Ms. Director, could you spare a few moments to explain the importance of the Banking Acts of 1933 and ‘35?

Director: Your timing is excellent. I’ve just come from an FDIC meeting where we’ve been discussing this very topic! We’re very excited that the Banking Act of 1935 has made the FDIC a permanent organization. The 1933 Act created the FDIC and the 1935 Act decided to keep us around. Now we can continue to insure customers’ deposits, giving them the confidence to leave their money in their bank. Bank customers can be assured that if their bank fails, their deposits will be returned by the FDIC. This will help prevent the terrible bank runs of the past. People who have deposited their money in banks can depend on the FDIC now and well into the future.

Econ Ed: Good to know! But let's start with the Banking Act of 1933, so that our listeners can gain a better appreciation for how these two laws changed the banking system and helped improve the economic well-being of U.S. households and businesses.

Director: Well, shortly after President Roosevelt took office, the president and Congress worked together to write and pass the Banking Act of 1933, also known as the Glass-Steagall Act. Up until the early 1900s, **commercial banks** accepted deposits and made direct loans to individuals and businesses. But in the early 1900s, commercial banks began to establish subsidiaries that financed bonds and provided financial backing for the stocks that companies issued. These were services similar to those offered by **investment banks**. Helping companies issue bonds and new stocks was risky and exposed commercial banks to greater risk of failure. After 1933, with the passage of the Glass-Steagall Act, a clear distinction was drawn between the types of services that commercial banks and investment banks could offer. This eased Americans' fear that banks were unsafe.

Econ Ed: Sounds like FDR and Congress were working to get banks back on track.

Director: It was a great improvement! As I stated earlier, the act created the FDIC as a temporary agency and it also created the **Federal Open Market Committee (FOMC)**. Yes, indeed, the FOMC was a great addition for formulating **monetary policy**.

Econ Ed: Wow, things were happening fast!

Director: That's not all! The changes made through this act and the Banking Act of 1935 further defined the Fed's role. Congress decided in the Banking Act of 1935 to establish a new voting process for the FOMC to balance regional and national perspectives when deciding on monetary policy. With the change, only 5 regional Reserve Bank presidents, not all 12, were allowed to vote at one time, along with all 7 members of Board of Governors. The Board was also legally charged with setting **reserve requirements** for member banks. Prior to this, the regional Banks acted somewhat autonomously, but decisions on monetary and credit policy had always been subject to Federal Reserve Board approval.

Econ Ed: Holy cow! That's a lot of changes.

Director: Hold on a second there, Ed! I haven't finished giving you the "low down." The Comptroller of the Currency and the Secretary of the Treasury were then removed from the Federal Reserve Board, or Board of Governors as it was now called. The terms of office for Board members were also extended to 14 years.

Econ Ed: That's just swell! The Fed was evolving with the times. Thank you for your insight! Well, listeners, it's time to end our broadcast and trek back to the present. This is Econ Ed, signing off until our next adventure in history.

SOURCE:

The Balance of Power: The Political Fight for an Independent Central Bank, 1790-Present by Tim Todd, Federal Reserve Bank of Kansas City, 2009; <http://www.kansascityfed.org/publicat/balanceofpower/balanceofpower.pdf>

"Money, Gold, and the Great Depression," remarks by Governor Ben S. Bernanke at the H. Parker Willis Lecture in Economic Policy, Washington and Lee University, Lexington, Virginia, March 2, 2004; <http://www.federalreserve.gov/boarddocs/speeches/2004/200403022/default.htm>.

Handout 3: Concept Cards (page 1 of 2)

<p>Advice and consent – Part of the process for nominating people to executive and judicial posts.</p> <p>Appears in Scene 2.</p>	<p>Commercial banks – Financial institutions that accept deposits and make loans to individuals and businesses.</p> <p>Appears in Scenes 1 and 5.</p>
<p>Economic growth – A sustained rise over time in a nation’s production of goods and services.</p> <p>Appears in Scene 3</p>	<p>Federal Open Market Committee (FOMC) – The Federal Reserve’s chief body for conducting monetary policy.</p> <p>Appears in Scene 5.</p>
<p>Governor – The head of the Federal Reserve Regional Banks, later titled president.</p> <p>Appears in Scene 2.</p>	<p>Investment banks – Financial intermediaries that help corporations raise money by assisting those corporations in selling stock or debt securities (bonds) to investors.</p> <p>Appears in Scene 5.</p>
<p>Lender of last resort – The Federal Reserve’s role in providing short-term loans to financial institutions or markets to help calm financial panics.</p> <p>Appears in Scenes 2 and 3.</p>	<p>Liquidity – The quality that makes an asset easily convertible into cash with relatively little loss of value in the conversion process.</p> <p>Appears in Scenes 1 and 2.</p>

Handout 3: Concept Cards (page 2 of 2)

<p>Monetary policy – Central bank actions involving the use of the interest rate or money supply tools to achieve such goals as maximum employment and stable prices.</p> <p>Appears in Scenes 3 and 5.</p>	<p>Money supply – The quantity of money available in an economy.</p> <p>Appears in Scene 3.</p>
<p>Open market operations – The buying and selling of government securities by the Federal Reserve to control the money supply.</p> <p>Appears in Scene 3.</p>	<p>Reserve requirement – The percentage of a bank’s deposits it is required by law to hold, either as cash in its vault or on deposit with the Federal Reserve.</p> <p>Appears in Scene 5.</p>
<p>Reserves – The sum of cash that banks hold in their vaults and the deposits they maintain with Federal Reserve Banks.</p> <p>Appears in Scene 3.</p>	<p>Securities (Treasury) – Certificates of indebtedness issued by the Department of the Treasury on behalf of the U.S. government.</p> <p>Appears in Scene 3.</p>
<p>Speculators – People who take large financial risks in search of large rewards.</p> <p>Appears in Scenes 1 and 4.</p>	<p>Unemployment – A condition where people 16 years of age or older are without jobs and actively seeking work.</p> <p>Appears in Scene 4.</p>

Handout 4: Centennial Journal (page 1 of 2)

Event: Panic of 1907

Summary of event:

Event's importance in Fed history:

Event: Federal Reserve Act (1913)

Summary of event:

Event's importance in Fed history:

Handout 4: Centennial Journal (page 2 of 2)

Event: Banking Act of 1933 (The Glass-Steagall Act)

Summary of event:

Event's importance in Fed history:

Event: Banking Act of 1935

Summary of event:

Event's importance in Fed history:

Handout 5: Key Moments in Federal Reserve System History (page 2 of 2)

3. How did the Bank Panic of 1907, the Federal Reserve Act, and the Banking Acts of 1933 and 1935 affect the Fed's role, functions, and/or operations?
4. How did commercial bank services change in the early 1900s and how did this innovation contribute to the Banking Act of 1933?
5. Based on what you have learned, do you think the Fed was set up to act independently of Congress and the president or to be controlled by them? Why or why not?

Handout 5: Key Moments in Federal Reserve System History—Answer Key (page 1 of 2)

Directions: Answer the following questions, using your journal entries for information on key Federal Reserve events.

1. How did the Bank Panic of 1907 encourage the establishment of the Federal Reserve System?

Poor investments made by speculators such as the Heinze brothers, who tried and failed to capture a corner of the copper market, prompted runs on banks, first the Knickerbocker Trust Company and then others. Depositors feared they would lose their money so demanded their deposits in full. The bank runs caused widespread liquidity problems; that is, banks were short on cash and unable to satisfy the level of demand. Because some banks had taken an unacceptable level of risk, the Panic showed the need for a government regulator to protect the public's interest and ensure the safety and stability of the banking system. The Panic also showed the need for a lender of last resort to lend money to the banks in times of crises. At the time, banks had to turn to private investors such as J.P. Morgan and his banking committee.

2. How is the Federal Reserve System structured to balance regional and centralized authority? What about private and public interests?

The Federal Reserve System is composed of the Board of Governors and 12 regional Reserve Banks. The seven-member Board of Governors is appointed by the president of the United States and confirmed by the Senate. It oversees the regional Reserve Banks. Board members serve 14-year staggered terms. Central authority is balanced with the regional authority of the 12 Reserve Banks. Bank presidents are chosen by a board of directors composed of bankers and business leaders.

3. How did the Bank Panic of 1907, the Federal Reserve Act, and the Banking Acts of 1933 and 1935 affect the Fed's role, functions, and/or operations?

- *The Bank Panic of 1907 prompted interest in establishing a central bank to supervise and regulate banks to promote public confidence and stability in the nation's banking system.*
- *The Federal Reserve Act structured a seven-member Federal Reserve Board, which is a government board charged with overseeing the 12 regional Reserve Banks. Board members are appointed by the president with the advice and consent of the Senate and serve 10-year staggered terms. That way, members' terms are not all up at once, which adds both continuity and variety in political and economic viewpoints. The central authority of the Board is balanced by regional authority through the establishment of 12 regional Reserve Banks. Each regional Bank has its own board of directors composed of bankers and business leaders from within that Federal Reserve region. These regions are also known as districts. Each Board of Directors chooses its own governor to head its Bank. The purpose of these regional banks is to serve as a lender of last resort—to provide liquidity to foster confidence in the banking system. So, the Federal Reserve is a blend of public and private interests. The bill provided another essential role for the Fed by allowing it to house the U.S. government's money and act as the nation's banker.*

Handout 5: Key Moments in Federal Reserve System History—Answer Key (page 2 of 2)

- *To strengthen the Fed's authority and independence, Congress passed the Banking Acts of 1933 and 1935. The Banking Act of 1933 separated commercial banking from investment banking and established the Federal Deposit Insurance Corporation (FDIC) as a temporary agency to guarantee deposits. The term of office for Federal Reserve Governors was extended to 12 years, and the Federal Open Market Committee (FOMC) was established to formulate and implement monetary policy. The FOMC consists of all 12 Bank presidents and the 7 governors of the Federal Reserve Board.*
 - *The Banking Act of 1935 narrowed the number of voting members on the FOMC to five regional Bank presidents and all seven members of the Board of Governors. It also removed the Secretary of the Treasury and the Comptroller of the Currency from the Federal Reserve Board, a move that helped to strengthen Federal Reserve independence from the U.S. Treasury. It also extended the terms of office for Federal Reserve Board of Governors to 14 years. It is at this point that the Fed was formally considered the nation's central bank.*
4. How did commercial bank services change in the early 1900s and how did this innovation contribute to the Banking Act of 1933?
- *In the early 1900s, commercial banks began to establish related business divisions that provided services similar to investment banks. Commercial banks, for example, helped businesses issue bonds and stocks. These were services similar to those offered by investment banks. Helping companies issue bonds and new stocks was risky and exposed commercial banks to greater risk of failure. After 1933, with the passage of the Glass-Steagall Act, a clear distinction was drawn between the types of services that commercial banks and investment banks could offer.*
5. Based on what you have learned, do you think the Fed was set up to act independently of Congress and the president or to be controlled by them? Why or why not?
- *In 1913, Congress designed the Federal Reserve System to represent both private and public interests. The Federal Reserve Board is a government agency balanced by a system of 12 regional Banks. The System balances central and regional authority. The terms of the Board's governors were designed to be staggered, and from 1913 to 1935, terms of office were increased from 10 to 14 years. By 1935, the Comptroller of the Currency and the Secretary of the Treasury were removed from the Board of Governors, and the FOMC had been created (1933) to formulate and influence monetary policy.*

Handout 6: Assessment Essay

Directions: Use the information from the lesson to write a short essay as directed in the prompt. Your essay should be five paragraphs long, include an introduction and conclusion, and contain specific examples to support your arguments.

Prompt: How did the structure and responsibilities of the Federal Reserve evolve over time to promote the following?

- Stable prices
- Economic growth
- An independent central bank, free from U.S. governmental authority

Standards and Benchmarks

Common Core State Standards: Grades 9-12 English Language Arts Standards

In Writing: Text Types and Purposes CCSS.ELA-Literacy.W.9-10.1; W.11-12.1
Production and Distribution of Writing CCSS.ELA-Literacy.W.9-10.4; W.11-12.4

In History/Social Studies: Key Ideas and Details CCSS.ELA-Literacy.RH.9-10.1; RH.11-12.1
Key Ideas and Details CCSS.ELA-Literacy.RH.9-10.2; RH.11-12.2
Craft and Structure CCSS.ELA-Literacy.RH.9-10.4; RH.11-12.4
Range of Reading CCSS.ELA-Literacy.RH.9-10.10; RH.11-12.10

National Curriculum Standards for the Social Studies

NCSS Strand 2: Time, Continuity and Change
NCSS Strand 5: Individuals, Groups & Institutions
NCSS Strand 7: Production, Distribution & Consumption

National Content Standards in Economics

CEE Standard 18: Economic Fluctuations
CEE Standard 19: Unemployment and Inflation
CEE Standard 20: Fiscal & Monetary Policy

100 YEARS OF THE FEDERAL RESERVE SYSTEM

The Federal Reserve System Shuffle

A Federal Reserve Centennial Lesson that illustrates change over time
1945-1987

FRS Centennial Lesson Plan



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Lesson Description

Through an interactive card sort and human time-line activity, students explore how key events, legislation, innovations, and technology led to changes and/or efficiencies in the Federal Reserve System and U.S. banking system from 1945 through 1989. This lesson highlights both consistency and change over time and is designed as a supplemental resource for students with a basic knowledge of the roles and functions of the Federal Reserve System.

Grade Level

9–12

Standards and Benchmarks

See page 39

Concepts

Automated teller machine
Bretton Woods Agreement
Community Reinvestment Act
Computerized currency counting equipment: REI High-Speed Machine
Consumer protection
Diners Club
Employment Act of 1946
Equal Credit Opportunity Act
Expedited Funds Availability Act
Federal Reserve Reform Act
Full Employment and Balanced Growth Act (Humphrey-Hawkins Act)
Lender of last resort
Payment services
Regulation J
Truth in Lending Act

Objectives

Students will be able to:

- provide examples of how the Federal Reserve System has supported and incorporated new technology and innovations to foster efficiencies in the banking system over time;
- analyze and explain why the Federal Reserve has instituted new consumer protection regulations over time; and
- examine and explain why the Federal Reserve has changed the way it processes payments over time.

Time Required

Two 45-minute class periods

Materials

- “The Federal Reserve System Shuffle” PowerPoint or Visuals 1 through 8
- Signs 1, 2, and 3, hung in different areas of the classroom before the lesson
- Handout 1, one copy for each group of three students, cut into cards (Optional: scissors for students to cut the strips themselves)
- Handout 2, one copy for each group of three students
- Handout 3, one copy for each student in excess of 12
- Handout 3, one copy for each student, cut into strips
- Handout 3 Answer Key for the teacher
- Handout 4, one copy for each student
- Handout 4 Answer Key for the teacher
- Handout 5 and 6, print as needed
- One piece of flip-chart paper for each group
- Tape for hanging signs
- Tape or glue sticks for student exercise

Procedures

DAY ONE

1. Display *Slide/Visual 1*. Tell students that today they will be learning about the Federal Reserve System by examining historical events from 1945 through 1987, with special emphasis on exploring how the Federal Reserve's roles in fostering a stable and growing economy, promoting consumer protection, and providing efficient payment services have both remained consistent and changed over time.
2. Explain that government organizations, like any organization, must adjust to keep pace with changes in the marketplace and meet current responsibilities. For example, the Federal Communications Commission (FCC) has made tremendous changes. The FCC was originally called the Federal Radio Commission (FRC). It was established to oversee the radio industry and other modes of written communication, such as newspapers, that had influence over the general public. Over time, it has addressed new industry innovations and technology, which in turn, has affected its roles and responsibilities.
3. Ask students the following and record responses on the board:
 - What other media communications industries, besides radio and newspapers, might be regulated and/or overseen by the FCC today? (*Answers will vary but may include television, Internet companies, online print media, telephones, or cell phones.*)
4. Explain to students that many of the changes in the mass-media communications industry have been due to technological innovations. The FCC's authority and roles both remained consistent (for example, for radio and newspapers) and changed due to the emergence of new technologies (for example, the telephone and television and later telecommunications, such as the wireless Internet and the cell phone).
5. Explain to students that like the FCC, the Federal Reserve System has adapted to keep pace with change. The two institutions each have jurisdiction over a particular component of the economy. Unlike the FCC, the Fed is a quasi-independent, part-government, part-private institution, established by Congress, to
 - influence the cost and supply of credit,
 - serve as a lender of last resort, and
 - regulate and supervise financial institutions (that is, those banks that belong to the Federal Reserve System).
6. Display *Slide/Visual 2*. Read or assign a student to read the slide (as follows).

This lesson demonstrates how the Federal Reserve System has adapted over time to meet the changing needs of the American people and the banking industry.

7. Display *Slide/Visual 3*. Read or assign a student to read the slide (as follows).

Because the U.S. economy and society changed considerably after WWII through the late 1980s, the Federal Reserve had to adapt and grow to fulfill the following responsibilities:

- (1) Foster a stable and growing economy
- (2) Promote consumer protection
- (3) Provide efficient payment services to depository institutions

8. Note that you will discuss each responsibility in turn. Draw students' attention to *Sign 1: Foster a Stable and Growing Economy*. Display *Slide/Visual 4* and explain the following: Within its responsibility to foster a stable and growing economy, the Fed performs the following services:

- **Provides an elastic currency**

An elastic currency refers to the Fed's ability to issue Federal Reserve notes to meet the demand for money—a need that was one of the reasons the Fed was originally established.

- **Serves as a lender of last resort**

As a lender of last resort, the Fed can offer short-term loans to banks. For example, during the Great Recession in 2008-09, the Federal Reserve made loans to a number of financial institutions and lowered interest rates to foster a stable and growing economy.

- **Influences the cost and availability of credit and the supply of money**

The Fed primarily accomplishes this task by influencing interest rates, which are the cost of credit for debt instruments such as car loans, student loans, and mortgages. The Fed can also influence the availability and the supply of loans.

- **Adjusts monetary policy for current economic conditions and emerging trends**

The Fed analyzes current economic conditions and determines the best approach to take to foster a stable and growing economy.

- **Addresses certain economic or financial risks to the U.S. economy and banking system**

Potential economic or financial risks may prompt the Fed to adjust its policy direction. For example, if the Fed identified an inflationary trend, too much money chasing too few goods, the Fed might try to raise interest rates to combat inflation. Or, if the economy is in a recession, experiencing slow to no economic growth, the Fed may try to lower interest rates to help spark economic growth.

9. Draw students' attention to *Sign 2: Promote Consumer Protection*. Display *Slide/Visual 5* and explain the following:
- Prior to 1968, states had different rules or lacked guidelines regarding how and what information about the cost of credit should be shared with consumers. As a remedy, Congress has expanded the Fed's authority to include enforcement of consumer protection laws. Within its responsibility to promote consumer protection, the Federal Reserve performs the following services:
 - **Protects consumers against discrimination and unfair or deceptive business practices**
 - **Ensures consumers adequate access to the goods and services offered by financial institutions to promote consumer choice and a more competitive market**
 - **Ensures consumers adequate information to make informed financial decisions**
- For example, in 2009, Congress passed the Credit Accountability Responsibility and Disclosure Act. The act requires credit card companies to notify cardholders 45 days in advance of any increase in rates, limits fees and rate increases, and requires consistency in payment dates and times.
10. Draw students' attention to *Sign 3: Provide Efficient Payment Services to Depository Institutions*. Display *Slide/Visual 6* and explain the following: Within its responsibility to provide efficient payment services to depository institutions, the Federal Reserve performs the following services:
- **Distributes and processes cash and coin**
 - **Processes checks and electronic payments**
 - **Adopts new methods to keep pace with new technology and innovation to foster efficiency and improve the payments system**
- For example, in 2003, Congress passed the Check Clearing for the 21st Century Act that allows checks to be electronically submitted by financial institutions to the Federal Reserve. This reduces processing time and costs. The Fed and depository institutions no longer have to solely rely on airplanes and trucks to transport checks from one location to the next. Because of this change, today paper checks are processed by the Federal Reserve at only one Federal Reserve Bank.
11. Explain to the students that they are going to take part in an activity that illustrates how changes in banking technology, innovation, and historical events altered the Fed's roles and responsibilities for how it fosters a stable and growing economy, promotes consumer protection, and provides efficient payment services to depository institutions.

12. Place the students in groups of three, and provide each group with one set of cards from *Handout 1: Historical Events Cards*, one copy of *Handout 2: Federal Reserve Responsibilities*, and a blank sheet of flip-chart paper.
13. Display *Slide/Visual 7*. Review the directions with the students (as follows). Optional: Suggest that the students take notes to use with written assessments at the end of the lesson.
 - Assign each student in your group one of the following Fed responsibilities:
 - (1) Foster a stable and growing economy
 - (2) Promote consumer protection
 - (3) Provide efficient payment services to depository institutions
 - Read through each card and decide, as a group, which Fed responsibility the card describes. Hand that card to the student assigned that responsibility.
 - As you read the cards, record any unfamiliar terms or phrases on flip-chart paper. Hang the paper on the wall nearest your group for teacher clarification.
 - After all cards have been assigned, each student in the group is to move to the sign in the room that displays his or her responsibility.
 - Within the responsibility groups, compare cards to confirm you are holding the same cards. Discuss any cards that seem out of place for the responsibility or don't have a match. Determine the proper responsibility for each card determined a mismatch.
 - Distribute the mismatched cards to the students in your original groups according to their assigned responsibilities.
14. Allow time for students to complete the activity. Guide the process as necessary per the directions. Walk around the classroom, moving from group to group, to define and clarify unfamiliar terms or phrases.
15. Display *Slide/Visual 8* to reveal the correct card categories (as follows).

(1) Foster a stable and growing economy

1. Bretton Woods Agreement (1944)
2. Employment Act of 1946
8. Federal Reserve Reform Act (1977)
9. Full Employment and Balanced Growth Act (Humphrey-Hawkins Act; 1978)

(2) Promote consumer protection

4. Truth in Lending Act (TILA; 1968)
6. Equal Credit Opportunity Act (1974)
7. Community Reinvestment Act (1977)
12. Expedited Funds Availability Act (1987)

(3) Provide efficient payment services to depository institutions

- 3. Diners Club (1950)
- 5. Automated Teller Machine (ATM) Invented (1969)
- 10. Regulation J: Check Clearing and Wire Transfers (1980s)
- 11. Computerized Currency Counting Equipment: REI High-Speed Machine (1981)

END OF DAY ONE (If you have a 90-minute period, continue the activity; otherwise, collect the cards for the Day Two activity.)

DAY TWO

- 16. Instruct the students to stand in their respective responsibility groups from the previous class.
- 17. Instruct the groups to distribute the four cards to four individuals in the group. If there are more than four students in the group, those with no card may return to their seats.
- 18. Ask the students holding the cards to form a time line in the front of the room, placing themselves in the chronological order of the events on the card. Explain that they are now part of a living time line that represents specific historical events that changed how the Fed fulfills its responsibilities to foster a stable and growing economy, promote consumer protection, and provide efficient payment services.
- 19. Distribute *Handout 3: Historical Event Descriptions* to the seated students.
- 20. Instruct the seated students to take turns reading the event descriptions from Handout 3. Instruct the students in the time line to step forward and name the event on the card when the description read matches the event card they are holding. Use the Handout 3 Answer Key to verify that the correct student has stepped forward.
- 21. Complete the time-line activity by reading the following descriptions. Instruct the students in the time line to step forward if their event fits the circumstance noted (the correct answers follow each description):
 - **Reflects changes in the payment system**
 - *Diners Club (1950)*
 - *Automated Teller Machine (ATM) Invented (1969)*
 - *Regulation J: Check Clearing and Wire Transfers (1980s)*
 - *Computerized Currency Counting Equipment: REI High-Speed Machine (1981)*Note that all of these events fall under the Fed's responsibility to provide efficient payment services.

- **Demonstrates concern over stable prices or inflationary pressure**

- *Bretton Woods Agreement (1944)*
- *Employment Act of 1946*
- *Federal Reserve Reform Act of 1977*
- *Full Employment and Balanced Growth Act (Humphrey-Hawkins Act; 1978)*

Note that all of these events fall under the Fed's responsibility to foster a stable and growing economy.

- **Displays changes in the role/functions of the Federal Reserve to protect the consumer**

- *Truth in Lending Act (TILA; 1968)*
- *Equal Credit Opportunity Act (1974)*
- *Community Reinvestment Act (1977)*
- *Expedited Funds Availability Act (1987)*

Note that all of these events fall under the Fed's responsibility to promote consumer protection.

- **Shows how technology has influenced the payment system**

- *Diners Club (1950)*
- *Regulation J: Check Clearing and Wire Transfers (1980s)*
- *Computerized Currency Counting Equipment: REI High-Speed Machine (1981)*
- *Automated Teller Machine (ATM) Invented (1969)*

22. Instruct students to return to their seats. Give each student a set of strips cut from Handout 3, a copy of *Handout 4: Historical Events Time Line*, and access to tape or glue stick. Instruct students to place the strips under the correct event. When all class members have completed the work, check for accuracy. (See Handout 4 Answer Key.)
23. Tell students that today's activity was designed to demonstrate how the Federal Reserve System has changed over time to (i) adapt to changes in the banking industry and (ii) foster economic growth and stable prices in the face of ever-evolving markets that affect the U.S. economy.
24. Use Handout 5 as a brief assessment or Handout 6 for a more comprehensive assessment.

Sign 2

(2) Promote Consumer Protection



Sign 3

(3) Provide Efficient Payment Services to Depository Institutions



Visual 1



The Federal Reserve System Shuffle **A Federal Reserve Centennial Lesson that illustrates change over time** **1945-1987**

FRS Centennial Lesson Plan

Visual 2

Lesson Overview

This lesson demonstrates how the Federal Reserve System has adapted over time to meet the changing needs of the American people and the banking industry.

Visual 3

Lesson Themes

Because the U.S. economy and society changed drastically after WWII through the late 1980s, the Federal Reserve had to adapt and grow to fulfill the following responsibilities:

- (1) Foster a stable and growing economy
- (2) Promote consumer protection
- (3) Provide efficient payment services to depository institutions

Visual 4

(1) Foster a stable and growing economy

Within this responsibility, the Federal Reserve System performs the following services:

- Provides an elastic currency
- Serves as a lender of last resort
- Influences the cost and availability of credit and the supply of money
- Adjusts monetary policy for current economic conditions and emerging trends
- Addresses certain economic or financial risks to the U.S. economy and banking system

Visual 5

(2) Promote consumer protection

Within this responsibility, the Federal Reserve System performs the following services to enforce consumer protection laws passed by Congress:

- Protects consumers against discrimination and unfair or deceptive business practices
- Ensures consumers adequate access to the goods and services offered by financial institutions, to promote consumer choice and a more competitive market
- Ensures consumer adequate information to make informed financial decisions



Visual 6

(3) Provide efficient payment services to depository institutions

Within this responsibility, the Federal Reserve System performs the following services:

- Distributes and processes cash and coins
- Processes checks and electronic payments
- Adopts new methods to keep pace with new technology and innovation to foster efficiency and improve the payments system

Visual 7: Directions

Assign each student in your group one of the following Fed responsibilities:

- (1) Foster a stable and growing economy
- (2) Promote consumer protection
- (3) Provide efficient payment services to depository institutions

Read through each card and decide, as a group, which Fed responsibility the card describes. Hand that card to the student assigned that responsibility.

As you read the cards, record any unfamiliar terms or phrases on a flip-chart paper. Hang the paper on the wall nearest your group for teacher clarification.

After all cards have been assigned, each student in the group is to move to the sign in the room that displays his or her responsibility.

Within responsibility groups, compare cards to confirm you are holding the same cards. Discuss any cards that seem out of place for the responsibility or don't have a match. Determine proper responsibility for each card determined a mismatch.

Distribute the mismatched cards to the students in your original groups according to their assigned responsibilities.

Visual 8

Responsibility Groups

(1) Foster a stable and growing economy

1. Bretton Woods Agreement (1944)
2. Employment Act of 1946
8. Federal Reserve Reform Act (1977)
9. Full Employment and Balanced Growth Act (Humphrey-Hawkins Act; 1978)

(2) Promote consumer protection

4. Truth in Lending Act (TILA; 1968)
6. Equal Credit Opportunity Act (1974)
7. Community Reinvestment Act (1977)
12. Expedited Funds Availability Act (1987)

(3) Provide efficient payment services to depository institutions

3. Diners Club (1950)
5. Automated Teller Machine (ATM) Invented (1969)
10. Regulation J: Check Clearing and Wire Transfers (1980s)
11. Computerized Currency Counting Equipment: REI High-Speed Machine (1981)

Handout 1: Historical Events Cards (page 1 of 6)

1. Bretton Woods Agreement (1944)

- The agreement was named for the New Hampshire town where leaders of 44 nations met for the United Nations International Monetary and Financial Conference on July 1-23, 1944.
- The agreement was designed to stabilize world currencies and finance the reconstruction of nations in Europe and Asia that were devastated by World War II.
- The agreement created the International Monetary Fund and the International Bank for Reconstruction and Development, now known as the World Bank.
- The agreement required participating countries to peg their currency's value to the U.S. dollar, which in turn was convertible into gold.
- Since the 1930s, the U.S. Treasury has been responsible for carrying out international economic policy for the United States, while the Federal Reserve has focused on monetary policy and domestic economic conditions.
- The Chairman of the Federal Reserve worked with the Secretary of the Treasury and Treasury officials to represent the U.S. position in this agreement.

2. Employment Act of 1946

- Fearing a recession after World War II, Congress proposed a bill to combat unemployment in two ways:
 - set a national goal that all Americans willing, able, and looking for work have job opportunities and a chance to receive fair compensation and
 - make it the responsibility of the government to guarantee a level of investment and spending to continue full employment.
- The final version of the bill did not guarantee full employment or define a specific way to finance the policy.
- Instead, the law made it the policy of the government to "promote maximum employment, production, and purchasing power."
- The law also required the president to submit an Annual Economic Report to Congress, established the Council of Economic Advisers, and created a Congressional Joint Economic Committee to explore ways to pursue economic goals.

Handout 1: Historical Events Cards (page 2 of 6)

3. Diners Club (1950)

- Prior to 1950, the only payment instruments available to consumers and businesses were currency, coin, checks, and individual store charge cards.
- The Diners Club was the first charge card that could be used with more than one merchant and in different locations.
- The Diners Club served as a middleman between companies and their customers. Customers could use the charge card, have Diners Club pay the merchant, and later reimburse Diners Club.
- To make a profit, Diners Club charged fees to both the customer and the merchant for each transaction.
- Diners Club was the only widely distributed charge card until American Express and Bank Americard (later known as Visa) were introduced in 1958.
- In 1966, Bank Americard released the first revolving credit card. The difference between a charge card and a credit card is that charge cards require balances to be paid in full at the end of each month, while credit cards provide customers the option of carrying over balances.

4. Truth in Lending Act (TILA; 1968)

- Prior to 1968, different states had different rules or lacked guidelines regarding how and what information about the cost of credit should be shared with consumers.
- TILA intended to make it easier for consumers to make an informed decision about credit by requiring credit issuers to be clear about the true cost and terms of credit.
- The Federal Reserve Board was given authority to issue regulations and implement TILA.
- To enforce TILA, the Federal Reserve Board issued Regulation Z. This rule requires institutions that offer credit to publish the total amount to be financed, the minimum monthly payment, the total number of monthly payments, and the annual percentage rate for its customers.
- One of TILA's requirements is that lenders use a uniform method for calculating the cost of credit.
- With the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the authority to enforce Regulation Z was transferred to the Consumer Financial Protection Bureau.

Handout 1: Historical Events Cards (page 3 of 6)

5. Automated Teller Machine (ATM) Invented (1969)

- Prior to the invention of the ATM, to have access to cash, consumers had to withdraw cash from their bank or cash a check at a business, such as a grocery store, that offered check-cashing services. These transactions had to be conducted during business hours.
- There is much debate about who should be credited with inventing the ATM, but the Smithsonian has credited Docutel and Donald Wetzel as the inventors.
- The first Docutel ATM was installed at New York's Chemical Bank. It read magnetically encoded plastic cards. The machine worked off-line and only dispensed cash.
- Most early ATM cards were actually credit cards.
- In 1972, the City National Bank of Cleveland designed a debit card that could debit customer checking accounts directly.
- ATM innovations over time have allowed customers to deposit checks, withdraw and transfer money, and even make payments.
- Bank customers now have access to their accounts 24 hours a day, 7 days a week, and in locations all across the world.

6. Equal Credit Opportunity Act (1974)

- The use of credit by consumers skyrocketed in the 1950s and 1960s.
- Although the civil rights movement brought attention to discrimination against minorities and women, civil rights legislation passed in the 1960s did not address discrimination by lenders.
- The act made it unlawful for a creditor to discriminate against any applicant on the basis of race, color, religion, national origin, sex, marital status, or age.
- The act prohibits practices that intentionally discriminate or have the effect of discriminating against one of the protected classes in the legislation.
- The rules for enforcement of the act were written by the Federal Reserve Board from 1974 to 2011, when the responsibility was transferred to the Consumer Financial Protection Bureau by the Dodd-Frank Financial Reform and Consumer Protection Act of 2010.

Handout 1: Historical Events Cards (page 4 of 6)

7. Community Reinvestment Act (CRA; 1977)

- Prior to 1977, some financial institutions engaged in a practice known as “redlining”—the refusal to lend money to borrowers located in designated areas, often low-income communities—despite accepting deposits from these same customers.
- The CRA was designed to encourage banks and savings associations to help meet the needs of all borrowers in their community, including those in low- and moderate-income neighborhoods.
- Even though no specific criteria were established to assess bank compliance, whether a bank offers credit services in low- to moderate-income communities is considered when the bank applies to open new branches or engages in mergers or acquisitions.
- The CRA does not encourage banks to make high-risk loans. Banks are expected to operate in a safe and sound manner.
- When the CRA was passed, the supervising agencies were the Federal Reserve, the FDIC, the Federal Home Loan Bank Board, and the Office of the Comptroller of the Currency.
- Community Affairs offices were also created by the CRA within every Federal Reserve Bank to work with banks on identifying the needs of low- to moderate-income communities and to help banks determine how to address those needs.

8. Federal Reserve Reform Act (1977)

- This act requires the Fed to officially recognize price stability as a national monetary policy goal. It was enacted during a period of surging inflation. The average inflation rate during the 1970s was 6.8 percent, three times the inflation rate of the previous two decades. The high inflation was caused by expansionary monetary policy and punctuated by sharp increases in the prices of food and energy.
- Prior to the act, the monetary policy goal of the Federal Reserve had been set by the Employment Act of 1946. That act addressed fears of another Great Depression and made maximizing employment a monetary policy goal.
- The 1977 act established what is known as the dual mandate “to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.”
- The goal of price stability is to keep inflation low so that consumers and businesses can make more-informed economic decisions.
- The act also set four-year terms for the Chairman and Vice Chairman of the Board of Governors and subjected their appointments to Senate confirmation.

Handout 1: Historical Events Cards (page 5 of 6)

9. Full Employment and Balanced Growth Act (1978)

- This law was enacted to set four economic goals for the federal government: full employment, economic growth, a balanced budget, and low inflation.
- More commonly known as the Humphrey-Hawkins Act, it stated that government should rely on private enterprise to achieve these goals before using public means.
- The act mandated that the Federal Reserve report to Congress on monetary policy twice a year (in February and July).
- The act gave the government and the Federal Reserve clear targets for the unemployment rate and the inflation rate. However, these targets are not binding.
- The initial target goals were aimed at achieving a 4 percent unemployment rate and a 3 percent inflation rate by 1983.
- After 1983, the time required to achieve or maintain price stability was to be specified every year in the Economic Report of the President.

10. Regulation J: Check Clearing and Wire Transfers (1980s)

- The Federal Reserve, the central bank of the United States, is a system of 12 regional Banks. Regulation J allowed the Federal Reserve to establish rules for the 12 regional Federal Reserve Banks to ensure uniform payment services, including check processing and wire transfers, for the financial institutions that use Fed payment services.
- Having shared rules makes the transfer of payments within the system more efficient. Individual Reserve Banks may still have additional rules specific to their region.
- Check clearing: Regulation J provided rules for collecting checks, cash, and noncash items and returning these items to settle balances.
- Wire transfers: Regulation J also provided rules for fund transfers through Fed Wire, an electronic payment and securities transfer service. These policies included business hours, security procedures, and fees for service.

Handout 1: Historical Events Cards (page 6 of 6)

11. Computerized Currency Counting Equipment: REI High-Speed Machine (1981)

- Two of the Fed's functions are to meet banks' demand for cash and coin and to store bank cash reserves. Banks may also keep excess reserves at the Fed.
- Prior to 1981, the Federal Reserve used what was known as a Federal Bill Counter and a weighing system to process cash.
- Fed staff would examine the bills prior to placing them in the counter to make sure the currency was the correct denomination, facing in the right direction, in good condition, and not a suspected counterfeit.
- Although a somewhat mechanized process, the sorting and processing of currency required much manpower.
- In 1981, the Fed began using the computerized REI high-speed machine. The REI revolutionized the existing currency counting process by
 - processing and sorting 72,000 notes per hour,
 - sorting bills by denomination and position,
 - separating out bills that were unfit for circulation, and
 - counting and banding bills in 100-note straps.

12. Expedited Funds Availability Act (1987)

- This act was passed to ensure consumers timely access to checkable deposits.
- Prior to 1987, financial institutions across the nation had different rules for how long they would need to hold a check before customers could gain access to their money.
- The reason for this hold was to allow time for funds to be transferred from one institution to another and to verify the availability of those funds.
- The act clarifies what is a reasonable time frame for banks to make funds available for withdrawal. It also
 - includes policies on disclosing when funds are available and how interest is paid,
 - specifies rules on the quick return of checks,
 - specifies bank responsibilities to ensure this process, and
 - provides check-endorsement standards.
- The Federal Reserve Board of Governors wrote the regulations, which are carried out by a variety of organizations, including the Federal Reserve Banks.

Handout 2: Federal Reserve Responsibilities

Because the U.S. economy and society changed drastically after WWII up through the late 1980s, the Federal Reserve had to adapt and grow to fulfill the following responsibilities:

- Foster a stable and growing economy
- Promote consumer protection
- Provide efficient payment services to depository institutions

Handout 3: Historical Event Descriptions (page 1 of 2)

Prior to this act, the monetary policy goal of the Federal Reserve had been set by the Employment Act of 1946.
This act established the Council of Economic Advisers.
This act does not encourage banks to make high-risk loans.
This law required the president to submit an Annual Economic Report to Congress.
This legislation prohibits practices that intentionally discriminate or have the effect of discriminating against one of the protected classes in the legislation.
This was the only widely distributed charge card until American Express and Bank Americard were introduced in 1958.
This act made it unlawful for a creditor to discriminate against any applicant on the basis of race, color, religion, national origin, sex, marital status, or age.
This act established the dual mandate "to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates."
The first of these machines worked off-line and only dispensed cash.
This act is more commonly known as the Humphrey-Hawkins Act.
This was the first charge card that could be used with more than one merchant and in different locations.
The rules for enforcement of this act were written by the Federal Reserve Board from 1974 to 2011, when the responsibility was transferred to the Consumer Financial Protection Bureau.
To make a profit, this company charged fees to both the customer and the merchant for each transaction.
Under this act, whether a bank offers credit services in low- to moderate-income communities is considered when the bank applies to open new branches.
This agreement created the International Monetary Fund and the International Bank for Reconstruction and Development, now known as the World Bank.
This act was passed to ensure consumers timely access to checkable deposits.
Prior to this device, consumers had to withdraw cash from their bank or cash a check at a business, such as a grocery store, that offered check-cashing services.
This act made it the policy of the government to try and "promote maximum employment, production, and purchasing power."

Handout 3: Historical Event Descriptions (page 2 of 2)

This act made it easier for consumers to make an informed decision about credit by requiring credit issuers to state the true cost and terms of credit.
To enforce this act, the Federal Reserve Board issued Regulation Z, which requires institutions that offer credit to publish the total amount to be financed, the minimum monthly payment, the total number of monthly payments, and the annual percentage rate.
This act allowed the Federal Reserve to establish rules for the 12 regional Federal Reserve Banks to ensure uniform payment services, including check processing and wire transfers.
This act set four-year terms for the Chairman and Vice Chairman of the Board of Governors of the Federal Reserve System.
Bank customers now have access to their accounts 24/7 and in locations all across the world.
This law was enacted to set four economic goals for the federal government: full employment, economic growth, a balanced budget, and low inflation, using private enterprise before using public means.
This machine revolutionized currency counting by processing and sorting 72,000 notes per hour.

Handout 3: Historical Event Descriptions—Answer Key (page 1 of 2)

Prior to this act, the monetary policy goal of the Federal Reserve had been set by the Employment Act of 1946. (Federal Reserve Reform Act, 1977)
This act established the Council of Economic Advisers. (Employment Act of 1946)
This act does not encourage banks to make high-risk loans. (Community Reinvestment Act, 1977)
This law required the president to submit an Annual Economic Report to Congress. (Employment Act of 1946)
This legislation prohibits practices that intentionally discriminate or have the effect of discriminating against one of the protected classes in the legislation. (Equal Credit Opportunity Act, 1974)
This was the only widely distributed charge card until American Express and Bank Americard were introduced in 1958. (Diners Club, 1950)
This act made it unlawful for a creditor to discriminate against any applicant on the basis of race, color, religion, national origin, sex, marital status, or age. (Equal Credit Opportunity Act, 1974)
This act established the dual mandate “to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.” (Federal Reserve Reform Act of 1977)
The first of these machines worked off-line and only dispensed cash. (ATM Invented, 1969)
This act is more commonly known as the Humphrey-Hawkins Act. (Full Employment and Balanced Growth Act, 1978)
This was the first charge card that could be used with more than one merchant and in different locations. (Diners Club, 1950)
The rules for enforcement of this act were written by the Federal Reserve Board from 1974 to 2011, when the responsibility was transferred to the Consumer Financial Protection Bureau. (Equal Credit Opportunity Act, 1974)
To make a profit, this company charged fees to both the customer and the merchant for each transaction. (Diners Club, 1950)
Under this act, whether a bank offers credit services in low- to moderate-income communities is considered when the bank applies to open new branches. (Community Reinvestment Act, 1977)
This agreement created the International Monetary Fund and the International Bank for Reconstruction and Development, now known as the World Bank. (Bretton Woods Agreement, 1944)
This act was passed to ensure consumers timely access to checkable deposits. (Expedited Funds Availability Act, 1987)

Handout 3: Historical Event Descriptions—Answer Key (page 2 of 2)

Prior to this device, consumers had to withdraw cash from their bank or cash a check at a business, such as a grocery store, that offered check-cashing services. (ATM Invented, 1969)
This act made it the policy of the government to try and “promote maximum employment, production, and purchasing power.” (Employment Act of 1946)
This act made it easier for consumers to make an informed decision about credit by requiring credit issuers to state the true cost and terms of credit. (Truth in Lending Act [TILA], 1968)
To enforce this act, the Federal Reserve Board issued Regulation Z, which requires institutions that offer credit to publish the total amount to be financed, the minimum monthly payment, the total number of monthly payments, and the annual percentage rate. (Truth in Lending Act [TILA], 1968)
This act allowed the Federal Reserve to establish rules for the 12 regional Federal Reserve Banks to ensure uniform payment services, including check processing and wire transfers. (Regulation J: Check Clearing and Wire Transfers, 1980)
This act set four-year terms for the Chairman and Vice Chairman of the Board of Governors of the Federal Reserve System. (Federal Reserve Reform Act, 1977)
Bank customers now have access to their accounts 24/7 and in locations all across the world. (ATM Invented, 1969)
This law was enacted to set four economic goals for the federal government: full employment, economic growth, a balanced budget, and low inflation, using private enterprise before using public means. (Full Employment and Balanced Growth Act, 1978)
This machine revolutionized currency counting by processing and sorting 72,000 notes per hour. (Computerized Currency Counting Equipment: REI High-Speed Machine, 1981)

Handout 4: Historical Events Time Line (page 1 of 2)

Directions: Affix the statement under the event it describes. Events may have more than one statement.

Bretton Woods Agreement (1944)

Employment Act of 1946

Diners Club (1950)

Truth in Lending Act (TILA; 1968)

Automated Teller Machine (ATM) Invented (1969)

Equal Credit Opportunity Act (1974)

Handout 4: Historical Events Time Line (page 2 of 2)

Community Reinvestment Act (1977)

Federal Reserve Reform Act (1977)

Full Employment and Balanced Growth Act (1978)

Regulation J: Check Clearing and Wire Transfers (1980s)

Computerized Currency Counting Equipment: REI High-Speed Machine (1981)

Expedited Funds Availability Act (1987)

Handout 4: Historical Events Time Line—Answer Key (page 1 of 2)

Directions: Affix the statement under the event it describes. Events may have more than one statement.

Bretton Woods Agreement (1944)

- *This agreement created the International Monetary Fund and the International Bank for Reconstruction and Development, now known as the World Bank.*

Employment Act of 1946

- *This act established the Council of Economic Advisers.*
- *This law required the president to submit an Annual Economic Report to Congress.*
- *This act made it the policy of the government to “promote maximum employment, production, and purchasing power.”*

Diners Club (1950)

- *This was the only widely distributed charge card until American Express and Bank Americard were introduced in 1958.*
- *This was the first charge card that could be used with more than one merchant and in different locations.*
- *To make a profit, this company charged fees to both the customer and the merchant for each transaction.*

Truth in Lending Act (TILA; 1968)

- *This act made it easier for consumers to make an informed decision about credit by requiring credit issuers to state the true cost and terms of credit.*
- *To enforce this act, the Federal Reserve Board issued Regulation Z, which requires institutions that offer credit to publish the total amount to be financed, the minimum monthly payment, the total number of monthly payments, and the annual percentage rate.*

Automated Teller Machine (ATM) Invented (1969)

- *The first of these machines worked off-line and only dispensed cash.*
- *Prior to this device, consumers had to withdraw cash from their bank or cash a check at a business, such as a grocery store, that offered check-cashing services.*
- *Bank customers now have access to their accounts 24/7 and in locations all across the world.*

Handout 4: Historical Events Time Line—Answer Key (page 2 of 2)

Equal Credit Opportunity Act (1974)

- *This legislation prohibits practices that intentionally discriminate or have the effect of discriminating against one of the protected classes in the legislation.*
- *This act made it unlawful for a creditor to discriminate against any applicant on the basis of race, color, religion, national origin, sex, marital status, or age.*
- *The rules for enforcement of this act were written by the Federal Reserve Board from 1974 to 2011, when the responsibility was transferred to the Consumer Financial Protection Bureau.*

Community Reinvestment Act (1977)

- *Under this act, whether a bank offers credit services in low- to moderate-income communities is considered when the bank applies to open new branches.*

Federal Reserve Reform Act (1977)

- *Prior to this act, the monetary policy goal of the Federal Reserve had been set by the Employment Act of 1946.*
- *This act does not encourage banks to make high-risk loans.*
- *This act established the dual mandate “to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.”*
- *This act set four-year terms for the Chairman and Vice Chairman of the Board of Governors of the Federal Reserve System.*

Full Employment and Balanced Growth Act (1978)

- *This act is more commonly known as the Humphrey-Hawkins Act.*
- *This law was enacted to set four economic goals for the federal government: full employment, economic growth, a balanced budget, and low inflation, using private enterprise before using public means.*

Regulation J: Check Clearing and Wire Transfers (1980s)

- *This act allowed the Federal Reserve to establish rules for the 12 regional Federal Reserve Banks to ensure uniform payment services, including check processing and wire transfers.*

Computerized Currency Counting Equipment: REI High-Speed Machine (1981)

- *This machine revolutionized currency counting by processing and sorting 72,000 notes per hour.*

Expedited Funds Availability Act (1987)

- *This act was passed to ensure consumers timely access to checkable deposits.*

Handout 5: Written Assessment

Directions:

For each of the three Fed responsibilities noted below, choose a correlating time-line event. For each pair, use complete sentences and a paragraph format to (i) describe the responsibility, (ii) describe the event, and (iii) explain how the event affected the Federal Reserve's role over time.

- (1) Foster a stable and growing economy
- (2) Promote consumer protection
- (3) Provide efficient payment services to depository institutions

Handout 6

The Federal Reserve System Shuffle Written Assessment

Directions:

Choose one of the three Fed responsibilities noted below and imagine that this responsibility no longer exists and is not fulfilled by any other organization. Write a one-page essay describing the possible problems that may develop in the U.S. economy for consumers and businesses if this were the case. Use specific examples of events from 1945 through 1987 to support your premise and to detail how the Federal Reserve System has changed over time to promote new legislation, technology, and innovation. Write in complete sentences and in paragraph format. You may use your notes to help complete the written assessment.

- (1) Foster a stable and growing economy
- (2) Promoting consumer protection
- (3) Provide efficient payment services to financial institutions

Sources for Handout 1: Historical Events Cards

1. **Bretton Woods Agreement.**
<http://external.worldbankimflib.org/Bwf/index.htm>
2. **Employment Act of 1946**
http://research.stlouisfed.org/publications/review/86/11/Employment_Nov1986.pdf
3. **Diners Club**
<http://history1900s.about.com/od/1950s/a/firstcreditcard.htm>
<http://www.creditcards.com/credit-card-news/credit-cards-history-1264.php>
4. **Truth in Lending Act**
<http://www.enotes.com/consumer-issues-reference/credit-truth-lending>
5. **Automated Teller Machine (ATM)**
www.kansascityfed.org/publicat/psr/BksJournArticles/ATMpaper.pdf
6. **Equal Credit Opportunity Act**
<http://www.ftc.gov/bcp/edu/pubs/consumer/credit/cre15.shtm>
<http://www.phil.frb.org/consumer-credit-and-payments/payment-cards-center/publications/discussion-papers/2012/D-2012-equal-credit-opportunity-act.pdf>
7. **Community Reinvestment Act**
http://www.frbatlanta.org/pubs/cra/what_iscommunity_reinvestment_act.cfm
http://www.federalreserve.gov/communitydev/cra_about.htm
8. **Federal Reserve Reform Act**
<http://www.frbsf.org/what-is-the-fed/history.html><http://www.senseoncents.com/tag/1977-amendment-to-federal-reserve-act>
9. **Full Employment and Balanced Growth Act**
<http://www.eric.ed.gov/ERICWebPortal/recordDetail?accno=ED164974>
<http://www.frbsf.org/econsrch/wklyltr/wklyltr99/el99-04.html>
10. **Regulation J: Check Clearing and Wire Transfers**
http://www.federalreserve.gov/paymentsystems/fedfunds_coreprinciples.htm#co
11. **Computerized Currency Counting Equipment: REI High-Speed Machine**
<http://www.philadelphiafed.org/education/teachers/resources/history-of-currency-counting>
12. **Expedited Funds Availability Act**
<http://www.fdic.gov/regulations/compliance/manual/pdf/VI-1.1.pdf>

Standards and Benchmarks

Common Core State Standards: Grades 9-12 English Language Arts Standards

- In Writing: Text Types and Purposes CCSS.ELA-Literacy.W.9-10.1; W.11-12.1
Production and Distribution of Writing CCSS.ELA-Literacy.W.9-10.4;
W.11-12.4
- In History/Social Studies: Key Ideas and Details CCSS/ELA-Literacy.RH.9-10.1; RH.11-12.1
Key Ideas and Details CCSS/ELA-Literacy.RH.9-10.2; RH.11-12.2
Craft and Structure CCSS/ELA-Literacy.RH.9-10.10; RH.11-12.10
Range of Reading CCSS/ELA-Literacy.RH.9-10.10; RH.11-12.10

National Curriculum Standards for the Social Studies

- NCSS Strand 2: Time, Continuity and Change
- NCSS Strand 5: Individuals, Groups and Institutions
- NCSS Strand 7: Production, Distribution & Consumption

National Content Standards in Economics

- CEE Standard 18: Economic Fluctuations
- CEE Standard 19: Unemployment and Inflation
- CEE Standard 20: Fiscal and Monetary Policy

100 YEARS OF THE FEDERAL RESERVE SYSTEM

The Modern Federal Reserve System

Changes and trends in Federal Reserve functions

FRS Centennial Lesson Plan



Lesson Authors

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Lesson Description

In this lesson, students participate in an activity to help them understand the difference between a change and a trend. They learn about the traditional functions of the Federal Reserve System. Working in groups, they review excerpts from primary sources, determine changes and trends in Fed functions, and present their findings through a visual display. In the assessment, students review three primary source documents and identify economic indicators (measurements), trends of the indicators, and the effects of these trends on the economy.

Grade Level

9–12

Standards and Benchmarks

See page 39

Concepts

Bond
Bond dealer
Change
Commercial bank
Direct deposit
Federal Reserve System
Monetary policy
Open market operations
Reserves
Reserve requirement
Payment services
Supervision and regulation
Trend

Objectives

Students will be able to:

- explain the difference between change and trend,
 - describe the three traditional functions of the Federal Reserve, and
 - provide examples of changes and trends in Federal Reserve functions.
-

Time Required

Two 45-minute class periods

Materials

- Visuals 1 to 4
 - Handout 1, one copy cut to distribute to student actors
 - Handout 2, one copy for each group of two to three students
 - Handout 3, copied to provide two student groups cards 1 to 5, two student groups cards 6 to 10, and two student groups cards 11 to 15
 - Handout 4, one copy for each student
 - Nine large name tags or signs students can wear: Fed, Commercial Bank, Commercial Bank Reserve Account, Bond Dealer, Bank Customer, Direct Deposit, Bond, Reserves, and Loan
 - Highlighters, one per student
 - Markers for each group
 - Six large sheets of poster paper, two labeled “Monetary Policy,” two labeled “Supervise and Regulate Financial Institutions,” and two labeled “Payment Services”
 - Tape
 - 2 pieces of yarn—one 36 inches long; 1 long enough to go between the Fed and the Commercial Bank—see diagram following procedure step #7.
-

Preparation

Have students move their desks toward the center of the room, allowing space around the room for students to walk in a line.

Choose a student to lead the line. Ask the leader to come to your desk. Explain that the student should move the line very quickly by establishing a brisk walk—nearly a jog. Tell the student that when you give a “thumbs down,” he or she should immediately slow down. When you give a “thumbs up,” he or she should begin moving backward.

Procedure

1. Ask the students to form a single-file line along the outside of their desks. Explain to students that a **trend** is a general direction in which something is moving or when there is a general tendency for certain events or conditions to occur. Instruct the line leader to begin moving. Allow the students to move around the room for a lap or two and then give the “thumbs down” to the leader. As students begin to push into each other and the line slows, ask the following:
 - What changed? (*The pace*)
 - What is the new trend? (*A slow pace*)
2. Allow the students to continue walking at the slow pace for a lap or two. Then give the “thumbs up” signal. As the line begins to move backward and students push into each other, ask the following:
 - What changed? (*The direction*)
 - What is the new trend? (*Moving backward*)
3. Ask the students to stop, return their desks to a normal position, and sit down. Remind students a trend is a general direction in which something is moving or when there is a general tendency for certain events or conditions to occur. Discuss the following:
 - What changes and trends did you see in the activity? (*A fast-paced trend, a pace change, a slow-paced trend, a direction change, and backward trend*)
 - What changed (*The pace, the direction*)
 - What are some trends that you have seen since you were in elementary school? (*Answers will vary but may include larger class sizes, heavier books, and more teachers per grade*).
 - How would you describe the difference between a change and a trend? (*Answers will vary but students should recognize that a change is when a difference occurs and a trend is a continuation of that difference.*)
4. Tell students that changes and trends frequently occur in industry and in the economy. Today they will be exploring changes and trends that have occurred within the **Federal Reserve System**, also called the Federal Reserve or simply the Fed.
5. Display *Slide/Visual 1: Fed Functions*. Explain that the **Federal Reserve** is the central bank of the United States and that its three main functions are (i) conducting monetary policy, (ii) supervising and regulating financial institutions, and (iii) providing payment services to financial institutions.

6. Display *Slide/Visual 2: Conducting the Nation's Monetary Policy*. Assign a student to read the description. Direct students to the first **monetary policy** tool and explain that, ordinarily, the Fed uses **open market operations** to adjust the amount of money banks hold as reserves to keep the federal funds rate at the Fed's target. Open market operations are the purchase and sale of U.S. Treasury and federal agency securities. The federal funds rate is the interest rate commercial banks charge each other for short-term loans they make to one another.
7. Explain that students will demonstrate open market operations. Select nine students to portray the following roles: the Fed, Commercial Bank, Commercial Bank Reserve Account, Bond Dealer, Bank Customer, Direct Deposit, Bond, Reserves, and Loan. Provide students with name tags indicating their roles and position them in front of the room as follows:
 - Position "Fed," "Reserves," "Direct Deposit," and "Commercial Bank Reserve Account" together to the far left.
 - Give one end of the longer piece of yarn to the "Fed" and one end to the "Commercial Bank."
 - Give one end of a 36-inch piece of yarn to the Fed and the other end to the commercial bank reserve account.
 - Position "Bond Dealer" and "Bond" to the right of "Fed."
 - Position "Commercial Bank" and "Loan" to the right of "Bond Dealer."
 - Position "Bank Customer" to the right of "Commercial Bank."



8. Distribute the role descriptions from Handout 1 to the appropriate actors. Explain to the actors that they will read an explanation of each role and that each actor should step forward when his or her role is introduced. They will then read a story about open market operations and the actors should move according to the story.
9. Tell the students in the audience to listen and keep track of the story action to answer the following questions:
 - Which characters have the money, bonds, and reserves at the start?
 - What kinds of exchanges take place?
 - Which characters have the money, bonds, and reserves at the end?

10. Introduce the characters in the following order. The following descriptions are identical to those the students will use. Please use these descriptions to assist with unfamiliar words as needed. In addition, following each description are actions the students will perform as you read through the story. These instructions are included on the students' cards.

- The Fed is the Federal Reserve System, the central bank of the United States. Among other responsibilities, it maintains bank accounts for commercial banks; that is, commercial banks have bank accounts, called reserves, at the Fed.

(Instructions: **In the story your teacher is about to read, the Fed (you) buys a Bond from the Bond Dealer. The Bond Dealer will walk the Bond over to you. Hold the Bond next to you.**

Hold one end of the piece of yarn. When you pay the Bond Dealer, the Direct Deposit will hold on to the yarn and move along the yarn to the Commercial Bank.

Hold one end of a second piece of yarn. When you move Reserves to the Commercial Bank Reserve Account, Reserves will hold the yarn and move along it from the Fed to the Commercial Bank Reserve Account.)

- Reserves are the sums of cash that commercial banks hold in their vaults and the deposits they maintain—in bank accounts—with the Federal Reserve. These accounts are very similar to checking accounts people hold at commercial banks.

(Instructions: **In the story your teacher is about to read, the Fed transfers Reserves (you) from the Fed to the Commercial Bank Reserve Account. Hold onto the yarn, while walking from the Fed to the Commercial Bank Reserve Account.)**

- Direct deposit is an electronic transfer that debits the bank account of a payer and credits the bank account of a payee. For example, most employers use direct deposit to pay employees. The employer, as the payer, orders its bank to send an electronic notification to the employee's bank account. The employer's account is debited by the amount the employee is paid and the employee's account is credited by that amount.

- A commercial bank reserve account is its account at the Federal Reserve that holds its reserves in excess of the cash it keeps on hand.

(Instructions: **Hold the end of one piece of yarn. The Fed will hold the other. When the Fed transfers Reserves to the Commercial Bank Reserve Account (you), the Reserves will hold the yarn and move along it from the Fed to you.)**

- A bond dealer is a financial intermediary associated with an investment bank. A bond dealer brings together businesses or governments that want to borrow money and people who want to lend money to earn a profit. A bond dealer facilitates this borrowing and lending by buying and selling bonds. When people want to lend money to the government or a corporation and earn some interest, they can buy a bond.

(Instructions: **When the Bond Dealer (you) sells the Bond to the Fed, take the arm of the Bond and walk the Bond to the Fed.)**

- A bond is a certificate of indebtedness issued by a government or corporation. A bond is an IOU; the bond issuer (the borrower) promises to repay the bond purchaser (the lender) the amount borrowed (the price of the bond) plus interest.

(Instructions: **When the Bond Dealer sells the Bond (you), the Bond Dealer will take your arm and walk you over to the Fed.)**

- A commercial bank is a financial institution that holds deposits for and makes loans to the public. When customers make deposits at a commercial bank, this money becomes the bank's reserves. When a bank makes a loan to a customer, it deposits the money it is lending into the customer's account. As long as the bank has sufficient reserves, it can make loans.

(Instructions: **Hold one end of a piece of yarn. The Fed will hold the other end. When the Fed makes a Direct Deposit into the Bond Dealer's account at the Commercial Bank (you), the Direct Deposit will hold onto the yarn and move from the Fed to you.)**

- A loan is a sum of money provided temporarily on the condition that the amount borrowed must be repaid, usually with interest.

(Instructions: **When the Bank Customer comes for the Loan (you), the Bank Customer will take your arm and leave the Commercial Bank with you.)**

- A bank customer is someone who keeps his or her money in checking and/or savings accounts at a commercial bank. A bank customer will likely go to a commercial bank to get a loan to buy a house, a car, or other big item.

(Instructions: **When the Bank Customer (you) gets the Loan, take the Loan's arm and walk away from the Commercial Bank with the Loan.)**

11. Remind the characters to act out the next sequence. Read the following:

- The Fed buys a bond from a bond dealer. *(The bond dealer should take the arm of the bond and walk the bond to the Fed.)*
- The Fed pays for the bond by making a direct deposit to the bond dealer's commercial bank account. *(The direct deposit holds onto the yarn and moves along the yarn from the Fed to the commercial bank.)*
- The direct deposit is an electronic notification that instructs the commercial bank to increase the bond dealer's account. To transfer the money, the Fed

transfers reserves from its account to the commercial bank's reserve account. *(Reserves moves along the yarn between the Fed and the commercial bank reserve account—just a few steps.)*

- The commercial bank has sufficient reserves to support a new loan. *(No movement)*
- A bank customer comes to the commercial bank to get a loan to buy a car. *(The bank customer comes to the commercial bank and walks away with the loan.)*

OPTIONAL: Explain that a direct deposit is merely an electronic signal that provides information on which accounts should be debited (decreased) and which should be credited (increased). When an account at a commercial bank is increased through direct deposit, the reserve account for that commercial bank must reflect that increase.

12. Ask the following questions of the audience:

- What are reserves? *(Reserves are the sum of cash that banks hold in their vaults and the deposits they maintain—in bank accounts—with the Federal Reserve.)*
- Is the commercial bank holding reserves? *(Yes)*
- What happened when the bond dealer was paid for the bond? *(A direct deposit was sent to the bond dealer's bank, which increased the commercial bank's reserve account at the Federal Reserve.)*
- With the additional reserves in its reserve account, what was the commercial bank able to do? *(Make a loan to a customer)*
- Why do people borrow money from a bank? *(Answers will vary but may include to buy a car or house or pay for school.)*
- If a customer borrows money to buy a house, how does the transaction benefit the economy? *(Answers will vary but may include the following: the buyer gets a new house; the seller gets money to buy another house or other goods and services; the bank receives interest payments on the mortgage; or the home buyer buys other goods and services, such as furniture, lawn care, and home-owners' insurance.)*
- If a customer borrows money to go to school, how does the transaction benefit the economy? *(Answers will vary but may include the following: the school gets money to provide more education and the customer becomes educated, gets a job, and earns money to spend in the economy.)*
- How did the Fed's actions in buying the Treasury bond from the bond dealer increase economic activity? *(The payment for the bond was deposited into the bond dealer's account at a commercial bank, which became additional reserves for the commercial bank. The addition of more reserves allowed the bank to make more loans. The bank customer borrowed money to buy a car, which then added money to the economy.)*

13. Have student actors return to their seats. Return to Slide/Visual 2 and direct students to the second tool, the discount window. Explain that the Federal Reserve is the lender of last resort for the purpose of helping banks overcome temporary liquidity problems. Liquidity problems can arise when the bank has good assets but the assets can't easily be turned into cash. For example, a mortgage is a good asset, but it can't easily be turned into the cash a bank would need to meet the demands of its customers. Ask the following question:
 - How can bank lending help the economy in times of recession? (*Answers will vary, but students should recognize that bank loans lead to increased spending on goods and services.*)
14. Return to Slide/Visual 2 and direct students to the third tool, the reserve requirement. Explain that the reserve requirement is the percentage of a bank's deposits it is required by law to hold as cash in its vaults and/or on deposit with the Federal Reserve. Ask the following:
 - What may banks do as their reserves increase? (*They may make more loans.*)
 - How would a higher or lower reserve requirement affect banks' ability to lend? (*Higher reserve requirements mean that banks have less to lend; lower reserve requirements mean that banks have more to lend.*)
15. Remind the students that one responsibility of the Federal Reserve is monetary policy, and that open market operations, the discount rate, and the reserve requirement are policy tools available to the Fed to conduct monetary policy.
16. Point out that another responsibility of the Federal Reserve is supervising and regulating financial institutions. Display *Slide/Visual 3: Supervising and Regulating Financial Institutions*. Assign a student to read the description. Explain that without **supervision and regulation**, banks would fail with greater frequency. Bank supervisors make sure banks have enough money, quality assets, and sound management; are earning money on their loans; and have sufficient liquid assets (assets that are easily converted to cash).
17. Point out that a third responsibility of the Fed is providing payment services. Display *Slide/Visual 4: Providing Payment Services to Financial Institutions*. Assign a student to read the description. Remind students that banks have accounts at the Fed, just as individuals, governments, and businesses have accounts at banks. When people write checks or use their debit cards, the Fed settles the payments by transferring reserves from the banks of the payers to the bank of the payees.
18. Divide the students into six groups. Explain that each group will be given information to analyze regarding a responsibility of the Federal Reserve. Display *Visual 1: Fed Functions* again to remind students of the functions.

19. Distribute a copy of Handout 2: Glossary to each student, a highlighter to each student, markers to each group, and sets of cards from Handout 3: The Changing Federal Reserve Functions—Info Cards as follows: Give two groups cards 1 through 5, two groups cards 6 through 10, and two groups cards 11 through 15. Explain that members of the groups should complete the following:
 - Read the cards assigned.
 - Use the glossary to define terms in bold on the cards.
 - Highlight changes and trends described on the cards.
 - Determine which Fed function the set of cards represents.
 - Write a summary of the information on your group's cards.
20. While students are working, tape the poster papers up in the room. Place the two posters with the same heading near one another.
21. When groups have completed work, instruct group members to place their cards on one poster labeled with the Fed function their cards represent. Check to be sure that students have placed cards correctly, and that each group is using a separate poster. If necessary, discuss and guide students to place cards on the appropriate poster. (Note: Cards 1 through 5 represent monetary policy, cards 6 through 10 represent supervision and regulation, and cards 11 through 15 represent payment systems.)
22. Tell groups to use markers to add to the posters examples of changes and resulting trends they have identified on their cards and to add a summary of the information on their cards. Tell groups to remain with their posters.
23. Instruct the groups that shared the same set of cards to discuss similarities and differences in the information they have placed on their posters and allow a few minutes for them to do so.
24. Explain that students will now participate in a gallery walk as follows: The groups that created the monetary policy posters should move to the supervision and regulation posters. The groups that created the supervision and regulation posters should move to the payment systems posters. The groups that created the payment systems posters should move to the monetary policy posters. Allow time for students to review the new posters.
25. Ask the groups to move to the final set of posters they have not yet reviewed. Allow time for students to review the new posters.

Closure

26. Have all students return to their seats. Discuss the following:
- What is the Federal Reserve System? *(The central bank of the United States)*
 - What are the traditional responsibilities of the Federal Reserve System? *(Conducting monetary policy, supervising and regulating financial institutions, and providing payment services to financial institutions)*
 - What is monetary policy? *(Central bank actions involving the use of interest rate or money supply tools to achieve such goals as maximum employment and stable prices)*
 - What is open market operations? *(The purchase and sale by the Federal Reserve of U.S. Treasury and federal agency securities)*
 - Why is supervision and regulation of financial institutions important? *(Bank supervisors make sure banks have enough money, quality assets, and sound management; are earning money on their loans; and have sufficient liquid assets [assets that are easily converted to cash].)*
 - What payment services does the Federal Reserve provide? *(The Fed holds cash reserves and processes check and electronic payments for depository institutions.)*
 - Describe the difference between a change and a trend. *(A change is when a difference occurs and a trend is a continuation of that difference.)*
27. Tell students that they will play “Trend or Change?” They will listen to descriptions from the information cards. They must decide whether the example is a trend or change. If it is a trend, they should give a “thumbs up” and if it is a change, a “thumbs down.” Read the following:
- In 2004, the FOMC made minutes of its meetings available to the public three weeks after each meeting. *(Change)*
 - Since the early 1980s, automated clearinghouse (ACH) payment volume has increased rapidly. *(Trend)*
 - In the 1980s, the focus for open market operations gradually shifted from targeting a desired quantity of reserves in the banking system to targeting the federal funds rate. *(Trend)*
 - To meet the liquidity needs of banks as a result of 9/11, the Fed stepped in to provide liquidity at a time when the financial system was overwhelmed with severe disruptions. Fed lending increased from about \$54 million to \$46 billion. *(Change)*
 - Congress granted the Fed authority to pay interest on both required and excess reserve balances (excluding vault cash). *(Change)*
 - The Fed developed stress tests for banks. *(Change)*
 - There has been an increase in noncash payments over the years. *(Trend)*
 - The Federal Reserve has worked to increase efficiency in check processing over time. *(Trend)*
 - The amount of currency in circulation has grown through the years. *(Trend)*

Assessment

28. Distribute *Handout 3: Assessment*. Assign a student to read the directions (as follows):
Directions: For the three document excerpts in this assessment you will identify economic measures, the trends of these measures, and the economic impacts of these trends. Economic measures include, for example, the inflation rate, unemployment rate, nonfarm payroll employment, and labor force participation. In some cases the economic impact is noted; in other cases you will need to describe what you think the economic impact might be. Follow the specific directions at the end of each excerpt.
29. Allow time for students to complete the handout and then review their answers using the answer key below.

Handout 3: Assessment—Answer Key

Excerpt 1: Statement on Longer-Run Goals and Monetary Policy Strategy

From Minutes of the Federal Open Market Committee
January 29-30, 2013 (Amended effective on January 29, 2013)

Based on the excerpt, identify the following: (i) one economic measure, (ii) the trend of the measure, and (iii) the economic impact of the trend.

Economic measure: The inflation rate

Trend: A longer-run inflation rate of 2 percent.

Economic impact: This trend fosters stable prices and moderate long-term interest rates by keeping inflation expectations stable.

Excerpt 2: The Economic Outlook

Testimony of Federal Reserve Chairman Ben S. Bernanke before the Joint Economic Committee, U.S. Congress, Washington, D.C., May 22, 2013

Based on the excerpt, identify the following: (i) two economic measures, (ii) the trends of these measures, and (iii) the economic impact of these trends. (NOTE: More than two measures are mentioned.)

Economic measure: The unemployment rate

Trend: The unemployment rate has been declining since summer. The unemployment rate remains well above its longer-run normal level.

Economic measure: Nonfarm payroll employment

Trend: Nonfarm payroll employment is increasing.

Economic measure: The labor force participation rate

Trend: The labor force participation rate continues to move down.

Economic impact: Declining unemployment and increasing nonfarm payroll employment mean more people are working and the economy is improving. Longer-run high unemployment and a decreasing labor force participation rate (fewer people in the labor force) create hardships for individual and families, damage the productive potential of the economy by eroding workers' skills, and prevent many young people from working. In addition, high unemployment reduces output and earnings, reduces government revenues, and increases spending on support programs, leading to budget deficits and higher levels of public debt.

Excerpt 3: Private Student Loans

Testimony of Todd Vermilyea, Senior Associate Director, Division of Banking Supervision and Regulation, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C. , June 25, 2013

Based on the excerpt, identify the following: (i) three economic measures, (ii) the trends of these measures, and (iii) the economic impact of these trends.

Economic measure: Student loan debt

Trend: Student loan debt has doubled since 2007, from about \$550 billion to over \$1 trillion today.

Economic measure: Number of student loan borrowers

Trend: The number of student loan borrowers has steadily increased since 2004, from just over 25 percent of 25-year-olds to more than 40 percent.

Economic measure: The average balance per student loan borrower

Trend: The average balance per student loan borrower has steadily increased since 2004, from an average of \$15,000 to slightly less than \$25,000 today.

Economic impact: These trends could create the following: People committed to high student loan payments could have reduced ability to buy goods and services in the future. Students will not be able to save as adults because of the burden of student loan payments. Loan defaults will decrease government revenue. On the other hand, a highly educated workforce made possible by the availability of student loans could earn higher wages that would support their spending, saving, and loan repayment. High wage earners also pay higher rates of income tax, increasing government revenue.

Visual 1: Fed Functions

The Federal Reserve System's Traditional Functions

- 1. Conducting the Nation's Monetary Policy**
- 2. Supervising and Regulating Financial Institutions**
- 3. Providing Payment Services to Financial Institutions**

Visual 2: Conducting the Nation's Monetary Policy

Conducting the Nation's Monetary Policy

The Federal Reserve System's primary function is to conduct monetary policy. Monetary policy is used to achieve the Fed's primary economic goals of maximum employment, price stability, and moderate long-term interest rates.

Monetary Policy Tools

- Open market operations – The purchase and sale of U.S. Treasury and federal agency securities by the Federal Reserve System through the Federal Open Market Committee; the Federal Reserve's principal tool for implementing monetary policy.
- The discount window – Federal Reserve lending programs to financial institutions.
- The reserve requirement – The percentage of a bank's deposits it is required by law to hold as cash in its vaults and/or on deposit with the Federal Reserve.

Visual 3: Supervising and Regulating Financial Institutions

Supervising and Regulating Financial Institutions

The Federal Reserve System is charged with helping to protect the integrity of the nation's financial institutions. The Fed examines and regulates depository institutions to help ensure the safety and soundness of the financial system, to promote stability in financial markets, and to promote compliance with applicable laws.

Regulations are written by the Board of Governors of the Federal Reserve System, and the Federal Reserve Banks supervise the institutions. Through supervision and regulation, the Fed reinforces the public's confidence in the banking system.

Visual 4: Providing Payment Services to Financial Institutions

Providing Payment Services to Financial Institutions

The Federal Reserve System provides services to depository institutions and the federal government. Just as banks hold cash and process checks and electronic payments for customers, the Fed holds cash reserves and processes checks and electronic payments for depository institutions.

Handout 1: Role Descriptions (1 of 3)

Introduce the Fed as follows:

The Fed is the Federal Reserve System, the central bank of the United States. Among other responsibilities, it maintains bank accounts for commercial banks; that is, commercial banks have bank accounts, called reserves, at the Fed.

Instructions:

In the story your teacher is about to read, the Fed (you) buys a Bond from the Bond Dealer. The Bond Dealer will walk the Bond over to you. Hold the Bond next to you.

Hold one end of the piece of yarn. When you pay the Bond Dealer, the Direct Deposit will hold on to the yarn and move along the yarn to the Commercial Bank.

Hold one end of a second piece of yarn. When you move Reserves to the Commercial Bank Reserve Account, Reserves will hold the yarn and move along it from the Fed to the Commercial Bank Reserve Account.

Introduce Reserves as follows:

Reserves are the sums of cash that commercial banks hold in their vaults and the deposits they maintain—in bank accounts—with the Federal Reserve. These accounts are very similar to checking accounts people hold at commercial banks.

Instructions:

In the story your teacher is about to read, the Fed transfers Reserves (you) from the Fed to the Commercial Bank Reserve Account. Hold onto the yarn, while walking from the Fed to the Commercial Bank Reserve Account.

Introduce Direct Deposit as follows:

Direct deposit is an electronic transfer that debits the bank account of a payer and credits the bank account of a payee. For example, most employers use direct deposit to pay employees. The employer, as the payer, orders its bank to send an electronic notification to the employee's bank account. The employer's account is debited by the amount the employee is paid and the employee's account is credited by that amount.

Handout 1: Role Descriptions (2 of 3)

Introduce Commercial Bank Reserve Account as follows:

A commercial Bank's reserve account is its account at the Federal Reserve that holds its reserves in excess of the cash it keeps on hand.

Instructions:

Hold the end of one piece of yarn. The Fed will hold the other. When the Fed transfers Reserves to the Commercial Bank Reserve Account (you), the Reserves will hold the yarn and move along it from the Fed to you.

Introduce the Bond Dealer as follows:

A bond dealer is a financial intermediary associated with an investment bank. A bond dealer brings together businesses or governments that want to borrow money and people who want to lend money to earn a profit. A bond dealer facilitates this borrowing and lending by buying and selling bonds. When people want to lend money to the government or a corporation and earn some interest, they can buy a bond.

Instructions:

When the Bond Dealer (you) sells the Bond to the Fed, take the arm of the Bond and walk the Bond to the Fed.

Introduce the Bond as follows:

A bond is a certificate of indebtedness issued by a government or corporation. A bond is an IOU; the bond issuer (the borrower) promises to repay the bond purchaser (the lender) the amount borrowed (the price of the bond) plus interest.

Instructions:

When the Bond Dealer sells the Bond (you), the Bond Dealer will take your arm and walk you over to the Fed.

Handout 1: Role Descriptions (3 of 3)

Introduce the Commercial Bank as follow:

A commercial bank is a financial institution that holds deposits for and makes loans to the public. When customers make deposits at a commercial bank, this money becomes the bank's reserves. When a bank makes a loan to a customer, it deposits the money it is lending into the customer's account. As long as the bank has sufficient reserves, it can make loans.

Instructions:

Hold one end of a piece of yarn. The Fed will hold the other end. When the Fed makes a Direct Deposit into the Bond Dealer's account at the Commercial Bank (you), the Direct Deposit will hold onto the yarn and move from the Fed to you.

Introduce the Loan as follows:

A loan is a sum of money provided temporarily on the condition that the amount borrowed must be repaid, usually with interest.

Instructions:

When the Bank Customer comes for the Loan (you), the Bank Customer will take your arm and leave the Commercial Bank with you.

Introduce the Bank Customer as follows:

A bank customer comes to the commercial bank to get a loan to buy a car.

Instructions:

When the Bank Customer (you) gets the Loan, take the Loan's arm and walk away from the Commercial Bank with the Loan.

Handout 2: Glossary (Page 1 of 2)

Agreement corporations	A corporation chartered by the state to engage in international banking.
Bank holding company	A company that owns one or more banks.
Board of Governors	The federal government agency that is the centralized component of the Federal Reserve System. The governors guide the policy actions of the Federal Reserve System.
Bond	A certificate of indebtedness issued by a government or corporation.
Business cycle	The fluctuating levels of economic activity in an economy over a period of time measuring from the beginning of one recession to the beginning of the next.
Capital	Financial assets. A bank's capital equals assets minus liabilities.
Capital requirements	Rules regarding a bank's level of capital, such as the minimum equity interest that the owners of a bank must maintain in the bank or the maximum ratio of a bank's liabilities to its assets.
Central bank	An institution that oversees the quantity of money in the economy.
Correspondent institutions	A financial institution that conducts business transactions on behalf of another financial institution. Domestic banks often conduct transactions on behalf of foreign banks.
Depository institutions	Commercial banks, savings and loan associations, savings banks, and credit unions; any firm that accepts deposits.
Discount window	Figurative expression for the Federal Reserve facility for extending credit directly to eligible depository institutions.
Edge Act corporations	A corporation chartered by the Federal Reserve to engage in international banking.
Federal funds rate	The interest rate at which a depository institution lends funds that are immediately available to another depository institution overnight.
Federal Open Market Committee (FOMC)	The Federal Reserve's chief body for conducting monetary policy.
Federal Reserve Banks	The 12 regional banks in the Federal Reserve System, which provide services to commercial banks, serve as fiscal agents for the U.S. government, and conduct economic research on their given region and the nation.
Federal Reserve System	The central bank of the United States.
Financial crisis	A situation where financial assets suddenly lose significant value. This term is often used in reference to the economic downturn in 2007-08.
Financial holding companies	Any non-bank company that earns 85 percent of its gross income from financial services, such as insurance products or securities.

Handout 2: Glossary (Page 2 of 2)

Financial market utilities	A system for the purpose of transferring, clearing, or settling payments or other financial transactions among financial institutions.
Implicit tax	An indirect cost that results from a government policy.
Insolvent	Having liabilities greater than assets.
Liquidity	The quality that makes an asset easily convertible into cash with relatively little loss of value in the conversion process.
Liquidity requirements	Rules for banks that specify the minimum levels of liquid assets (cash or assets that can be quickly converted to cash) they must maintain.
Monetary policy	Central bank actions involving the use of interest rate or money supply tools to achieve such goals as maximum employment and low inflation.
Money supply	The quantity of money available in an economy.
Non-bank financial firm	A financial institution that does not have a bank license but engages in financial services, such as insurance companies, payday lenders, and check-cashing services.
Open market operations	The buying and selling of government securities by the Federal Reserve in order to influence interest rates by varying the supply of reserves available to the banking system.
Reserve requirement	The percentage of a bank's deposits it is required by law to hold as cash in its vaults and/or on deposit with the Federal Reserve.
Reserves	The sum of cash that banks hold in their vaults and the deposits they maintain with Federal Reserve Banks.
Resolution mechanisms	Rules and methods for shutting down systemically important banks in case they become insolvent.
State-chartered member banks	Banks authorized to operate by the state in which they are located and also hold Federal Reserve membership.
Stress test	A series of adverse economic scenarios designed to determine whether a bank has sufficient capital to remain solvent in case of a severe economic downturn.
Supervision and regulation	The Federal Reserve responsibility to promote the safety and soundness of the banking system, foster stability in financial markets, and ensure compliance with laws and regulations under its jurisdiction.
Systemically important	Very large banks or other institutions with activities vital to financial markets.
Transparency	The Federal Reserve's efforts to inform the public about the steps it is taking to promote low inflation, maximum employment, and economic growth.

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 1 of 15)

Card 1

Transparency describes the Federal Reserve's efforts to inform the public about the steps the Fed takes to promote low inflation, maximum employment, and economic growth. The Federal Reserve has made the meetings of the **Federal Open Market Committee (FOMC)** more transparent by releasing minutes of FOMC meetings. Here is a description of the process based on an outline provided on the Federal Reserve's website.

The minutes of each regularly scheduled meeting of the Committee provide a timely summary of significant policy issues addressed by meeting participants. The minutes record all decisions taken by the Committee with respect to these policy issues and explain the reasoning behind these decisions. From their emergence in their present form in February 1993 until December 2004, the minutes were published approximately three days after the Committee's subsequent meeting. In December 2004, the Committee decided to expedite the release of its minutes. Since then, the minutes have been made available to the public three weeks after the date of the policy decision, thus reducing the lag in their release by an average of about three weeks. The minutes are subsequently published in the Board's *Annual Report*.

SOURCE: http://www.federalreserve.gov/monetarypolicy/fomc_historical.htm.

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 2 of 15)

Card 2

We know there are benefits of predictable **monetary policy** in shaping the public's expectations. However, just two decades ago, the **Fed's** decisions were at times hard to interpret. The Fed said relatively little about its monetary policy and allowed its actions to speak for themselves. Today, the central bank is quite explicit in setting out its monetary policy objectives and its views on the outlook for the economy. Two examples of this **transparency** are the Beige Book and semiannual Monetary Policy Report to Congress.

The Beige Book

The Beige Book, known as such because of its beige cover, is officially titled the "Summary of Commentary on Current Economic Conditions by Federal Reserve District." It is produced by Reserve Bank staff and released to the public approximately two weeks prior to each regularly scheduled Federal **Open Market Committee** meeting. This report is published eight times per year.

The Beige Book, first published in 1983, is based on information gathered by staff at the **Federal Reserve Banks** over the course of several weeks. Each Federal Reserve Bank collects anecdotal information on current economic conditions in its District through reports from Bank and Branch directors and interviews with key business contacts, economists, market experts, and other sources. The Beige Book summarizes this information by District and business sector, such as manufacturing or real estate and construction. An overall summary of the 12 District reports is prepared by a designated Federal Reserve Bank on a rotating basis.

The Monetary Policy Report to Congress

The Federal Reserve has long viewed transparency as a fundamental principle of central banking that supports accountability. The Federal Reserve reports to Congress twice annually regarding the Fed's monetary policy plans. In addition, the Chairman and other Federal Reserve officials often testify before Congress at other times.

SOURCE: <http://www.philadelphiafed.org/education/teachers/resources/day-in-life-of-fomc/>

http://www.federalreserve.gov/monetarypolicy/fomc_historical.htm.

http://www.federalreserve.gov/monetarypolicy/mpr_default.htm.

http://www.federalreserve.gov/faqs/about_12798.htm.

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 3 of 15)

Card 3

Depository institutions are required by law to follow the reserve requirement. That is, they must hold a certain percentage of their deposits as cash in their vaults and/or on deposit with Federal Reserve Banks. Money that depository institutions held at the Fed did not earn interest until October 2008. The reserve requirement imposes an implicit tax on banks because it limits a bank's ability to invest in interest-earning assets, such as loans and securities. The payment of interest on reserves, therefore, reduces or eliminates the implicit tax. In 2006, Congress passed the Financial Services Regulatory Relief Act, which granted the Federal Reserve authority to pay interest on both required and excess reserve balances (excluding vault cash). This legislation removed this tax on the banking system to create a more efficient flow of credit to interested borrowers.

Although this act was set to take effect in 2011, in October 2008, Congress passed the Emergency Economic Stabilization Act, which accelerated the date of implementation for this new nontraditional monetary policy tool.

SOURCE: http://www.frbatlanta.org/pubs/extracredit/13spring_ior.cfm

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 4 of 15)

Card 4

Open market operations—the purchase and sale of U.S. Treasury and federal agency securities (**bonds**)—are the principal tool the **Federal Reserve System** uses to implement **monetary policy**. Congress specified the Federal Reserve’s objectives for monetary policy—maximum employment, stable prices, and moderate long-term interest rates—in the Federal Reserve Act. The **Federal Open Market Committee (FOMC)** determines how to achieve these objectives through the use of open market operations. Open market operations may be used to target a desired quantity of **reserves** in the banking system or an interest rate, such as the **federal funds rate**. The federal funds rate is the interest rate at which **depository institutions** lend money from their reserve accounts at the Federal Reserve to other depository institutions overnight.

The Federal Reserve’s objective for open market operations has varied over the years. During the 1980s, the focus gradually shifted toward attaining a target level of the federal funds rate rather than targeting the **money supply**, a process that was largely completed by the end of the decade. Beginning in 1994, the FOMC began announcing changes in its direction for monetary policy, and in 1995 it began to explicitly state its target level for the federal funds rate. Since February 2000, the statement issued by the FOMC shortly after each of its meetings usually has included the Committee’s assessment of the risks to the attainment of its long-run goals of price stability and sustainable economic growth.

SOURCE: <http://www.federalreserve.gov/monetarypolicy/openmarket.htm>. http://www.federalreserve.gov/faqs/money_12848.htm.

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 5 of 15)

Card 5

In the days after 9/11, the **Federal Reserve System** used its **monetary policy** tools to ensure that financial institutions would have the **liquidity**—money—they needed.

Former Federal Reserve Vice Chair Roger Ferguson shared these thoughts about that time:

Our financial system is extremely efficient at maintaining liquidity. It brings together providers of funds and borrowers of funds with very little government intervention, and often that is taken for granted. Unfortunately, on September 11 it could not be taken for granted. There were severe disruptions in market infrastructure, financial institutions, and unfortunately the people who work in them. It was a time when the Federal Reserve had to step in and provide ample liquidity. We did so using all of the mechanisms available to us at the time.

Typically, the incoming and outgoing payments of banks across the country balance one another. However, the events of 9/11 meant that some banks were unable to make or receive payments. This had a domino effect that caused some banks to run huge positive balances and others to run negative balances. They needed to find other sources of liquidity before the close of business. To help alleviate this situation, the Fed used one of its monetary policy tools, loans at the **discount window**. At the discount window, the Fed lends money to banks, typically overnight, to help them maintain smooth day-to-day operations. On a normal business day in 2001, these loans totaled about \$54 million. But on September 12, the Fed lent a record \$46 billion.

SOURCE: http://www.frbsf.org/education/teachers/open/teacherlessonplan_videotranscript.pdf.

Handout 3: The Changing Federal Reserve Functions—Info Cards (Page 6 of 15)

Card 6

The Federal Reserve Board on Tuesday [July 2, 2013] approved a final rule to help ensure banks maintain strong **capital** positions that will enable them to continue lending to creditworthy households and businesses even after unforeseen losses and during severe economic downturns.

The final rule minimizes the burden on smaller, less-complex financial institutions. It establishes an integrated regulatory capital framework that addresses shortcomings in **capital requirements**, particularly for larger, internationally active banking organizations, that became apparent during the recent **financial crisis**. The rule will implement in the United States the Basel III regulatory capital reforms from the Basel Committee on Banking Supervision and certain changes required by the Dodd-Frank Wall Street Reform and Consumer Protection Act.

"This framework requires banking organizations to hold more and higher-quality capital, which acts as a financial cushion to absorb losses, while reducing the incentive for firms to take excessive risks," Chairman Ben Bernanke said. "With these revisions to our capital rules, banking organizations will be better able to withstand periods of financial stress, thus contributing to the overall health of the U.S. economy."

Under the final rule, minimum requirements will increase for both the quantity and quality of capital held by banking organizations.

"Adoption of the capital rules today is a milestone in our post-crisis efforts to make the financial system safer," Governor Daniel Tarullo said. "Along with the stress testing and capital review measures we have already implemented, and the additional rules for large institutions that are on the way, these new rules are an essential component of a set of mutually reinforcing capital requirements."

SOURCE: http://www.federalreserve.gov/consumerinfo/wyntk_creditcardrules2.htm.

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Card 7

In the wake of the **financial crisis**, Congress enacted the Dodd-Frank Act, which requires the [Federal Reserve] Board to implement enhanced prudential supervisory standards, including requirements for **stress tests**, for covered companies to mitigate the threat to financial stability posed by these institutions. The Dodd-Frank Act requires the Board to conduct an annual stress test of each covered company to evaluate whether the covered company has sufficient **capital**, on a total consolidated basis, to absorb losses as a result of adverse economic conditions. The Act requires that the supervisory stress test provide for at least three different sets of conditions—baseline, adverse, and severely adverse conditions—under which the Board would conduct its evaluation. The Act also requires the Board to publish a summary of the supervisory stress test results.

On October 9, 2012, a press release from the Board of Governors stated the following:

“Implementation of the Dodd-Frank stress test requirement is an important step in the Federal Reserve’s efforts to promote the health of the financial sector,” Governor Daniel K. Tarullo said.

“Stress testing is a key tool to ensure that financial companies have enough capital to weather a severe economic downturn without posing a risk to their communities, other financial institutions, or to the general economy.”

On July 11, 2013, Federal Reserve Board Governor Daniel K. Tarullo testified on the Dodd-Frank Implementation before the Senate Committee on Banking, Housing, and Urban Affairs. The following is an excerpt from his testimony:

Rigorous stress testing conducted by the [Federal Reserve] helps compensate for these shortcomings through a forward-looking assessment of the losses that would be suffered under stipulated adverse economic scenarios, so that capital can be built and maintained at levels high enough for the firms to withstand such losses and still remain viable financial intermediaries.

SOURCE: http://www.stlouisfed.org/regreformrules/Pdfs/2012-10-12_FRS_Final_rule_stress_tests_over_50_billion.pdf.

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The following excerpts are from testimony by Federal Reserve Board Governor Daniel K. Tarullo before the Senate Committee on Banking, Housing, and Urban Affairs on June 6, 2012:

As we approach the second anniversary of the Dodd-Frank Act, implementation of the financial reforms enacted by the Congress remains a formidable task. At the Federal Reserve, staff teams with a wide range of expertise continue to contribute to Dodd-Frank Act projects, many as part of joint rule-making efforts with other federal agencies. We have been working to put final Dodd-Frank Act rules in place and to negotiate and implement international reforms compatible with various Dodd-Frank Act provisions; these include enhanced **capital requirements** for **systemically important** banks, **liquidity requirements**, **resolution mechanisms**...

The Dodd-Frank Act reforms and the international regulatory reforms share an important feature—a strong focus on the largest, most complex, and most interconnected financial firms and the systemic risks posed by those firms. This effort reflects the provenance of both the Dodd-Frank Act and international reform initiatives, which were motivated largely by the failure or near failure of a number of major financial firms and the significant public policy problems created by the market perception that such firms are “too big to fail.” As the Federal Reserve implements reforms, we have maintained this core focus on the largest firms by proposing rules that try to mitigate the systemic risks posed by those firms and minimize the burden on smaller entities, particularly community banks. Similarly, we seek to implement reforms in a manner that is faithful to statutory requirements and that maximizes financial stability and other economic benefits at the least cost to credit availability and economic growth.

SOURCE: <http://www.federalreserve.gov/newsevents/testimony/tarullo20120606a.htm>.

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Card 9

The **Federal Reserve System** shares its **supervision and regulation** responsibilities with several other federal and state regulatory agencies, including the Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, and state regulatory agencies. Until implementation of the Gramm-Leach-Bliley Act of 1999 (GLBA), the Fed was the primary supervisor and regulator for several types of banking organizations, including **bank holding companies**, **state-chartered member banks**, and **Edge Act** and **agreement corporations**. The Foreign Bank Supervision Enhancement Act of 1991 gave the Fed the role of regulating U.S. subsidiaries of foreign banks.

Since the implementation of GLBA, the Federal Reserve has the additional responsibilities of serving as an “umbrella” supervisor for **financial holding companies** (FHCs), a new category of financial institution that may engage in expanded powers, including securities, insurance, merchant banking, as well as traditional banking activities; defining other financial activities in which FHCs may engage (along with the Treasury); and reviewing FHC declarations and notices, as FHCs begin to exercise the new powers.

SOURCE: <http://www.frbsf.org/education/publications/doctor-econ/2000/may/bank-regulation-supervision-gramm-leach-bliley>.

Through the Dodd-Frank Act, the Federal Reserve has been assigned responsibilities for **non-bank financial firms** and **financial market utilities** designated by the Financial Stability Oversight Council as systemically important. In addition, the act transferred authority for consolidated supervision of more than 400 Savings and Loans Holding Companies and their non-depository subsidiaries from the Office of Thrift Supervision (OTS) to the Federal Reserve, effective July 21, 2011. In overseeing the institutions under the Federal Reserve’s authority, the Federal Reserve seeks primarily to promote safety and soundness, including compliance with laws and regulations.

SOURCE: <http://www.federalreserve.gov/publications/annual-report/2011-supervision-and-regulation.htm>.

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Card 10

The Community Reinvestment Act (CRA) is intended to encourage **depository institutions** to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound operations. It was enacted by the Congress in 1977 and is implemented by Regulation BB. The regulation was substantially revised in May 1995 and updated again in August 2005.

The **Federal Reserve System**, together with the other financial regulatory agencies, is currently considering what can be done to make CRA a more effective regulatory incentive going forward to address an unprecedented set of community needs in the wake of the foreclosure crisis. As part of this regulatory initiative, the agencies held CRA hearings and invited written comments on how to improve CRA in June 2010. In December 2010, the agencies published amendments to the rule to encourage financial institutions to participate in activities aimed at revitalizing areas designated by the Department of Housing and Urban Development for funds under the Neighborhood Stabilization Program.

SOURCE: http://www.federalreserve.gov/communitydev/cra_about.htm.

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The automated clearinghouse (ACH) is an electronic payment system developed jointly by the private sector and the Federal Reserve in the early 1970s as a more-efficient alternative to checks. Since then, the ACH has evolved into a nationwide mechanism that processes credit and debit transfers electronically. ACH credit transfers are used to make direct deposit payroll payments and corporate payments to vendors. ACH debit transfers are used by consumers to authorize the payment of insurance premiums, mortgages, loans, and other bills from their accounts.

The estimated number of noncash payments totaled \$109 billion in 2009, with a value of \$72.2 trillion. The number of noncash payments in the United States has increased at a compounded annual rate of 4.6 percent since 2006, the year examined in the 2007 Federal Reserve Payments Study (Exhibit 1).

Exhibit 1: Number of Noncash Payments

	2006	2009	CAGR*
Total (billions)	95.2	109.0	4.6%
Checks (paid)	30.5	24.5	−7.1%
ACH	14.6	19.1	9.4%
Credit card	21.7	21.6	−0.2%
Debit card	25.0	37.9	14.8%
Prepaid card	3.3	6.0	21.5%

*NOTE: Figures may not add due to rounding. *CAGR is compound annual growth rate.*

Electronic payments (those made with cards and by ACH) now collectively exceed three-quarters of all noncash payments, while payments by check are now less than one-quarter. The increase in electronic payments and the decline of checks can be attributed to technological and financial innovations that influenced the payment instrument choices of consumers and businesses. Many other factors, including the business cycle, changes in the composition of economic activity, regulatory developments, and population growth may have also influenced these trends.

SOURCE: http://www.frbservices.org/files/communications/pdf/press/2010_payments_study.pdf

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Card 12

The **Federal Reserve Banks** provide check collection services to **depository institutions**. When a depository institution receives deposits of checks drawn on other institutions, it may send the checks for collection to those institutions directly, deliver them to the institutions through a local clearinghouse exchange, or use the check-collection services of a **correspondent institution** or a Federal Reserve Bank. For checks collected through the Federal Reserve Banks, the accounts of the collecting institutions are credited for the value of the checks deposited for collection and the accounts of the paying banks are debited for the value of checks presented for payment. Most checks are collected and settled within one business day.

The number of checks written nationally has been declining since the mid-1990s as the use of electronic payment instruments has grown. In addition, the Check Clearing for the 21st Century Act removed barriers to the electronic collection of checks, and electronic check collection has now become the primary method for collecting checks. Indeed, almost all checks processed by the Reserve Banks today are deposited and presented using the Reserve Banks' electronic check collection services. These changes have enabled the Reserve Banks to reduce their national check-processing infrastructure so that, since early 2010, they have been processing paper checks at one location nationwide, down from 45 in 2003.

SOURCE: http://www.federalreserve.gov/paymentsystems/check_about.htm.

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Card 13

In passing the Monetary Control Act of 1980, Congress reaffirmed its intention that the Federal Reserve should promote an efficient nationwide payments system. The act subjects all **depository institutions**, not just commercial banks that are members of **Federal Reserve Banks**, to the **reserve requirement** and grants them equal access to Reserve Bank payment services.* It also encourages competition between the Reserve Banks and private-sector providers of payment services by requiring the Reserve Banks to charge fees for certain payment services listed in the act and to recover the costs of providing these services over the long run.

Congressional action after 1980 has focused increasingly on improving the efficiency of the payments system by encouraging increased use of technology. In 1987, Congress enacted the Expedited Funds Availability Act, which gave the Board of Governors of the Federal Reserve System, for the first time, the authority to regulate the payments system in general, not just those payments made through the Reserve Banks. The Board used its authority under the act to revamp the check-return system and establish rules governing the time that banks can hold funds from checks deposited into customer accounts before making the funds available for withdrawal. In 2003, Congress enacted the Check Clearing for the 21st Century Act, which enabled the electronic collection of checks, speeding up check collection, and reducing associated costs.

*When a bank customer makes a payment, either electronically or by check, the money for the payment comes out of the customer's account. Money is deposited in the account of the business or person to whom the payment is made. The account of this business or person is at a depository institution (bank or credit union). The depository institution, like all such institutions, has a reserve account at a Federal Reserve Bank. The Fed helps the depository institution complete the transaction by taking money from the reserve account of the bank whose customer is making a payment and depositing the money into the reserve account of the bank receiving the deposit for its customer.

SOURCE: http://www.federalreserve.gov/pf/pdf/pf_7.pdf.

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Card 14

Today, currency and coin are used primarily for small-dollar transactions and thus account for only a small proportion of the total dollar value of all monetary transactions. During 2003, **Federal Reserve Banks** delivered to **depository institutions** about 36.6 billion notes having a value of \$633.4 billion and received from depository institutions about 35.7 billion notes having a value of \$596.9 billion. Of the total received by Reserve Banks, 7.4 billion notes, with a face value of \$101.3 billion, were deemed unfit to continue to circulate and were destroyed. The difference between the amount of currency paid to depository institutions and the amount of currency received from circulation equals the change in demand for currency resulting from economic activity. In 2003, the increase in demand was \$36.5 billion.

Over the past five decades, the value of currency and coin in circulation has risen dramatically—from \$31.2 billion in 1955 to \$724.2 billion in 2003—and the demand for larger denominations (\$20, \$50, and \$100 notes) has also increased. In 1960, these larger denominations accounted for 64 percent of the total value of currency in circulation; by 2003, they accounted for 95 percent. Because the U.S. dollar is highly regarded throughout the world as a stable and readily negotiable currency, much of the increased demand for larger-denomination notes has arisen outside the United States. Although the exact value of U.S. currency held outside the country is unknown, Federal Reserve economists estimate that from one-half to two-thirds of all U.S. currency circulates abroad.

Value of Currency in Circulation (Billions of Dollars as of December 31 of Each Year)									
	\$1	\$2	\$5	\$10	\$20	\$50	\$100	\$500 to \$10,000	TOTAL
2011	10.0	1.9	11.8	17.2	141.1	69.6	782.6	0.3	1,034.5
2001	7.8	1.3	9.2	14.7	100.9	57.0	421.1	0.3	612.3
1991	5.3	0.9	6.4	12.6	70.0	35.6	157.2	0.3	288.5

NOTE: Includes Federal Reserve notes, U.S. notes, and currency no longer issued.

SOURCE: http://www.federalreserve.gov/pf/pdf/pf_7.pdf. http://www.federalreserve.gov/paymentsystems/coin_currircvalue.htm.

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The automated clearinghouse (ACH) is an electronic payment system, developed jointly by the private sector and the Federal Reserve in the early 1970s as a more-efficient alternative to checks. Since then, the ACH has evolved into a nationwide mechanism that processes credit and debit transfers electronically. ACH credit transfers are used to make direct deposit payroll payments and corporate payments to vendors. ACH debit transfers are used by consumers to authorize the payment of insurance premiums, mortgages, loans, and other bills from their accounts.

The use of the ACH has evolved over time. The ACH is now used to make certain payments initiated by telephone or over the Internet. In addition, merchants that receive checks at the point of sale and banks that receive bill-payment checks in the mail are increasingly converting those checks into ACH payments.

ACH Transactions Processed by the Federal Reserve System—Annual Data

Year	Volume (millions of items)	Volume (% change)	Value (\$ billions)	Value (% change)	Average daily volume (millions of items)	Average daily value (\$ billions)	Average value per transaction (\$)
2011	10,349	1.1	17,802	5.1	41.2	70.9	1,720
2001	4,448	16.7	12,707	9.4	17.7	50.6	2,857
1993	1,486	12.0	6,455	−1.2	5.9	25.6	4,344

SOURCE: http://www.federalreserve.gov/paymentsystems/files/fedach_yearlycomm.pdf.

Handout 4: Assessment

Name _____

Directions: For the three document excerpts in this assessment you will identify economic measures, the trends of these measures, and the economic impacts of these trends. Economic measures include, for example, the inflation rate, unemployment rate, nonfarm payroll employment, and labor force participation. In some cases the economic impact is noted; in other cases you will need to describe what you think the economic impact might be. Follow the specific directions at the end of each excerpt.

Excerpt 1: Statement on Longer-Run Goals and Monetary Policy Strategy

From Minutes of the Federal Open Market Committee

January 29-30, 2013 (Amended effective on January 29, 2013)

SOURCE: <http://www.federalreserve.gov/monetarypolicy/fomcminutes20130130.htm>.

The Federal Open Market Committee (FOMC) is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decision making by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.

Based on the excerpt, identify the following: (i) one economic measure, (ii) the trend of this measure, and (iii) the economic impact of the trend.

Excerpt 2: The Economic Outlook

Testimony of Federal Reserve Chairman Ben S. Bernanke before the Joint Economic Committee, U.S. Congress, Washington, D.C., May 22, 2013

SOURCE: <http://www.federalreserve.gov/newsevents/testimony/bernanke20130522a.htm>.

Current Economic Conditions

Conditions in the job market have shown some improvement recently. The unemployment rate, at 7.5 percent in April, has declined more than 1/2 percentage point since last summer. Moreover, gains in total nonfarm payroll employment have averaged more than 200,000 jobs per month over the past six months, compared with average monthly gains of less than 140,000 during the prior six months. In all, payroll employment has now expanded by about 6 million jobs since its low point, and the unemployment rate has fallen 2-1/2 percentage points since its peak.

Despite this improvement, the job market remains weak overall: The unemployment rate is still well above its longer-run normal level, rates of long-term unemployment are historically high, and the labor force participation rate has continued to move down. Moreover, nearly 8 million people are working part-time even though they would prefer full-time work. High rates of unemployment and underemployment are extraordinarily costly: Not only do they impose hardships on the affected individuals and their families, they also damage the productive potential of the economy as a whole by eroding workers' skills and—particularly relevant during this commencement season--by preventing many young people from gaining workplace skills and experience in the first place. The loss of output and earnings associated with high unemployment also reduces government revenues and increases spending on income-support programs, thereby leading to larger budget deficits and higher levels of public debt than would otherwise occur.

Based on the excerpt, identify the following: (i) two economic measures, (ii) the trends of these measures, and (iii) the economic impact of these trends.

Excerpt 3: Private Student Loans

Testimony of Todd Vermilyea, Senior Associate Director, Division of Banking Supervision and Regulation, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C., June 25, 2013

SOURCE: <http://www.federalreserve.gov/newsevents/testimony/vermilyea20130625a.htm>.

Student Loan Market

The student loan market has increased significantly over the past several years, with outstanding student loan debt almost doubling since 2007, from about \$550 billion to over \$1 trillion today. Balances of student loan debt are now greater than any other consumer loan product with the exception of residential mortgages, and it is the only form of household debt that continued to rise during the financial crisis. Outstanding education loan debt is now greater than credit card debt, home equity lines of credit, or auto debt on consumers' balance sheets.

Since 2004, both the number of student loan borrowers, and the average balance per borrower, has steadily increased, according to data compiled by the Federal Reserve Bank of New York. In 2004, the share of 25-year-olds with student debt was just over 25 percent; today, that share has grown to more than 40 percent. At the end of 2012, the number of student loan borrowers totaled almost 40 million and the average balance per borrower was slightly less than \$25,000. In 2004, the average balance was just over \$15,000. In 2012, roughly 40 percent of all borrowers had balances of less than \$10,000; almost 30 percent had balances between \$10,000 and \$25,000; and fewer than 4 percent had balances greater than \$100,000.

Based on the excerpt, identify the following: (i) three economic measures, (ii) the trends of these measures, and (iii) the economic impact of these trends.

Standards and Benchmarks

Common Core State Standards: 9-12 English Language Arts Standards

In History/Social Studies:	Key Ideas and Details CCSS.ELA-Literacy.RH.9-10.1; RH.11-12.1 Key Ideas and Details CCSS.ELA-Literacy.RH.9-10.2; RH.11-12.2 Key Ideas and Details CCSS.ELA-Literacy.RH.9-10.3, RH.11-12.3 Craft and Structure CCSS.ELA-Literacy.RH.9-10.4; RH.11-12.4
In Reading:	Key Ideas and Details CCSS.ELA-Literacy.RI.9-10.1; RI.11-12.1 Craft and Structure CCSS.ELA-Literacy.RI.9-10.4; RI.11-12.4
Speaking & Listening:	Comprehension and Collaboration CCSS.ELA-Literacy.SL.9-10.1; SL.11-12.1

National Curriculum Standards for Social Studies:

NCSS Strand 5: Individuals, Groups & Institutions
NCSS Strand 7: Production, Distribution & Consumption
NCSS Strand 8: Science, Technology, and Society

National Content Standards in Economics

CEE Standard 11: Money and Inflation
CEE Standard 18: Economic Fluctuations
CEE Standard 20: Fiscal & Monetary Policy