

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.
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Time Required

Two 45-minute class periods

Materials

- Visuals 1 to 4
 - Handout 1, one copy for each group of two to three students
 - Handout 2, 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 3, one copy for each student
 - Nine name tags: 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
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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.
 - 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. Explain to the actors that you will first read an explanation of each role and that each actor should step forward when his or her role is introduced. You 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 by reading the following definitions and explanations:
 - 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.
 - 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.
 - **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's reserve account is its account at the Federal Reserve that holds its reserves in excess of the cash it keeps on hand.
- 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.
- 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.
- 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.
- A loan is a sum of money provided temporarily on the condition that the amount borrowed must be repaid, usually with interest.
- 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.

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

- The Fed buys a bond from a bond dealer. (*The bond should be walking from the bond dealer toward the Fed.*)
- The Fed pays for the bond by making a direct deposit to the bond dealer's commercial bank account. (*The direct deposit moves 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 scoot a few steps from the Fed to the commercial bank's reserve account.*)
- 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 homeowners' 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 1: Glossary* to each student, a highlighter to each student, markers to each group, and sets of cards from *Handout 2: The Changing Federal Reserve Functions—Info Cards* as follows: Give two groups cards 1 to 5, two groups cards 6 to 10, and two groups cards 11-15. 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 to 5 represent monetary policy, cards 6 to 10 represent supervision and regulation, and cards 11 to 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: 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 1: 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 2: 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 2: 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 2: 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 2: 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 2: 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.

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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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Card 8

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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Card 11

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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Card 15

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 3: 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