



## New Econ Ed Resources



February 9, 2016  
4:00-5:00 p.m. (EST)

# Welcome

## Logistics

- Call-in number: 888-625-5230
- Participant code: 98220550#
- <https://www.webcaster4.com/Webcast/Page/577/12687>
- This call is being recorded and will be available at a later date.
- You can listen through your PC or dial in to the phone.  
Remember: your specific connection matters; if PC audio diminishes, dial in to the toll-free line.
- Use the Materials button to access a pdf version of this presentation.

## How we'll take questions

- Use the chat feature in the webinar (Ask Questions button on bottom of screen)

# *Everyday Economics*

# Money



Princeton Williams  
Director, Economic Education  
Federal Reserve Bank of Dallas  
[princeton.williams@dal.frb.org](mailto:princeton.williams@dal.frb.org)  
214-922-6826

The views expressed in the presentation are mine and not the views of the Federal Reserve Bank of Dallas or the Federal Reserve System.

# A world without money...



- Transactions require double coincidence of wants.
- “Prices” are subjective and extremely variable.
- Transaction costs are high.



# When is money needed?

- Very large economies
- Specialized labor
- Complex transactions



# What is money?

**Anything that is generally acceptable as payment for goods and services or for repayment of debts.**



# Kinds of money

- **Commodity money**
- **Representative money**
- **Fiat money**



# Who needs money?

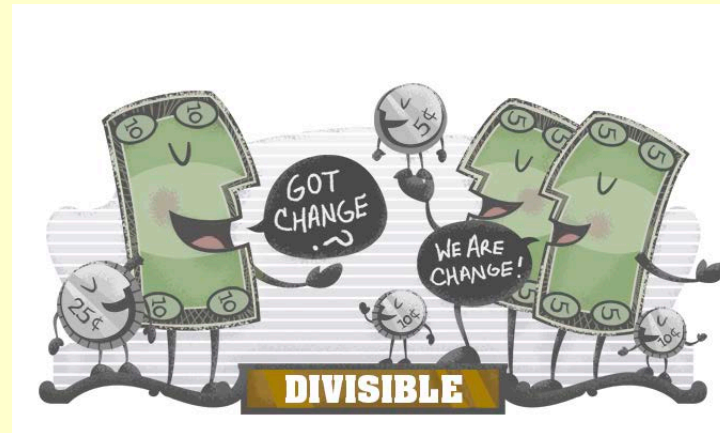
- Nations
- Groups of nations
- Communities
- Prisons
- The internet?



# Characteristics of money?

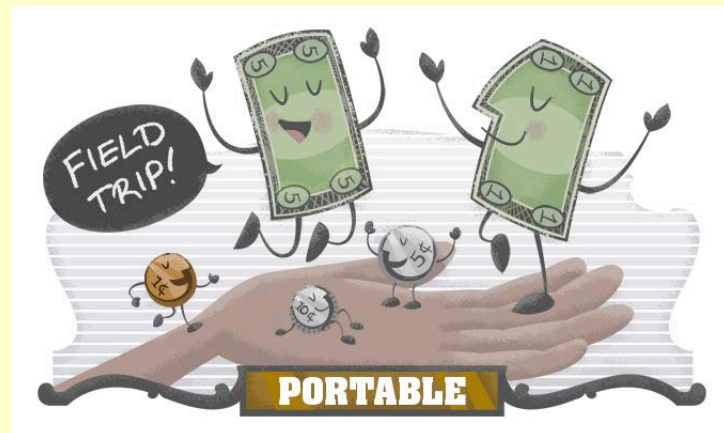


# Characteristics, cont.





# Characteristics, cont.

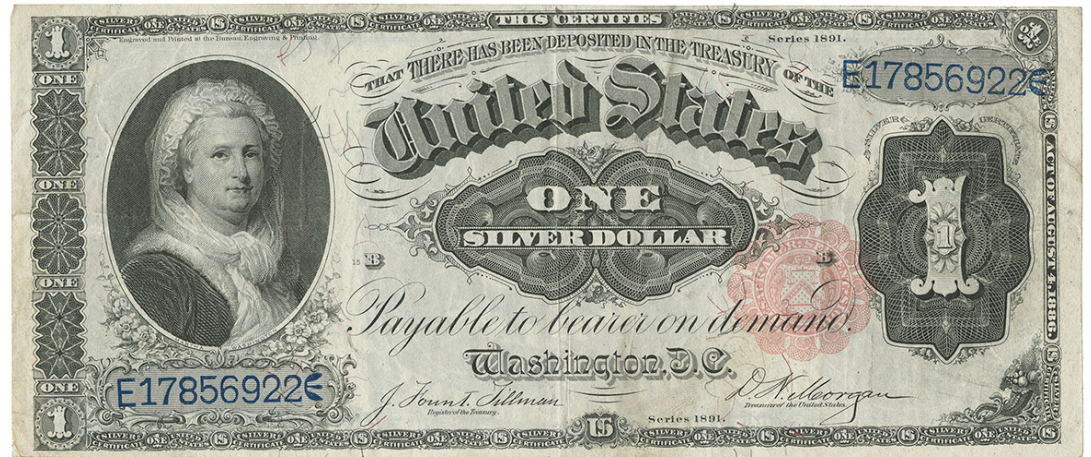


# Old money





# Old money



# Old money





# Current money



# Current money

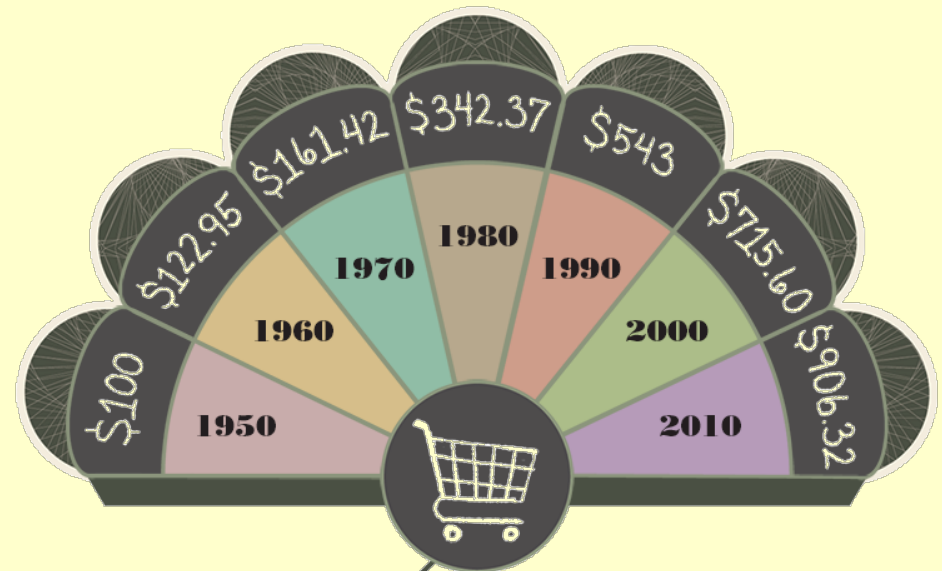




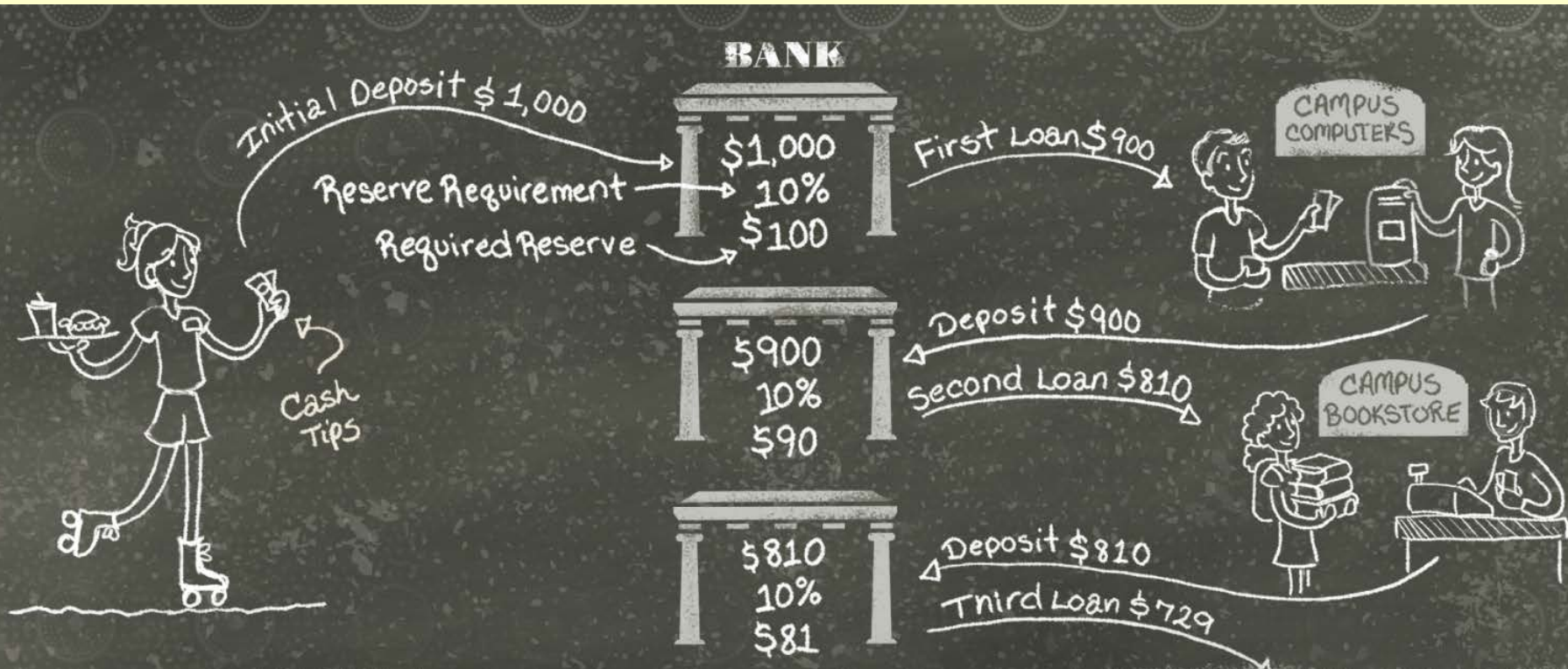
# Inside the publication

## CPI SHOPPING LIST

FOOD AND BEVERAGES  
HOUSING  
APPAREL  
TRANSPORTATION  
MEDICAL CARE  
RECREATION  
EDUCATION AND COMMUNICATION  
OTHER GOODS AND SERVICES



# Inside money



# Vocabulary for money



# Money



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# **“Case of the Gigantic \$100,000 Bill” Lesson**

Andrew T. Hill, Ph.D.  
Economic Education Advisor

February 9, 2016



# Teaching About Fractional Reserve Banking and Money Creation

- Important topics for teaching about money and banking in
  - General economics classes
  - AP Macroeconomics
  - Personal finance classes



# Teaching About Fractional Reserve Banking and Money Creation

- Always a difficult topic because
  - Students (and many adults) think that every dollar in the world is represented by a “green piece of paper.”
  - Most students are taught this content using T accounts.



TIME  
4

## Macroeconomics

### SOLUTIONS ACTIVITY 4-3 (CONTINUED)

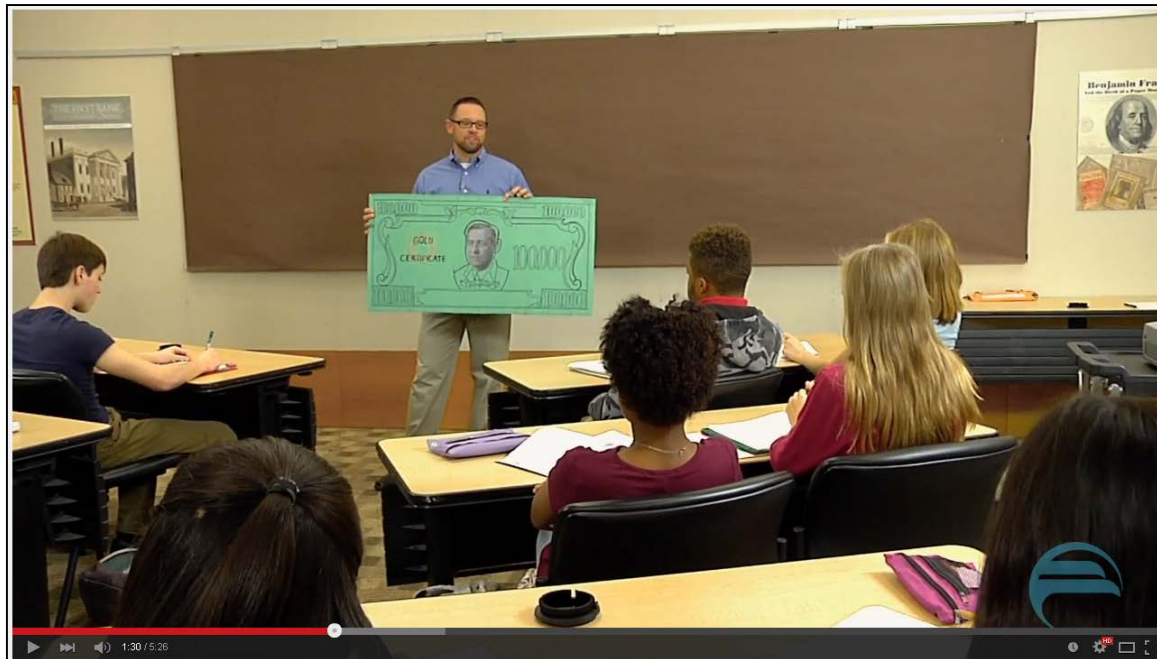
3. Another way to represent the multiple expansion of deposits is through *T-accounts*. A T-account shows offsetting assets and liabilities. For the bank, *assets* include loans, deposits with the Federal Reserve, and Treasury securities. *Liabilities* include deposits. Use the T-account below to show how the new \$1,000 deposit described in the previous example would be listed in a T-account.

Assets		Liabilities	
<b>Loans</b>	<b>\$900</b>	<b>Deposits</b>	<b>\$1,000</b>
<b>Reserves</b>	<b>\$100</b>		



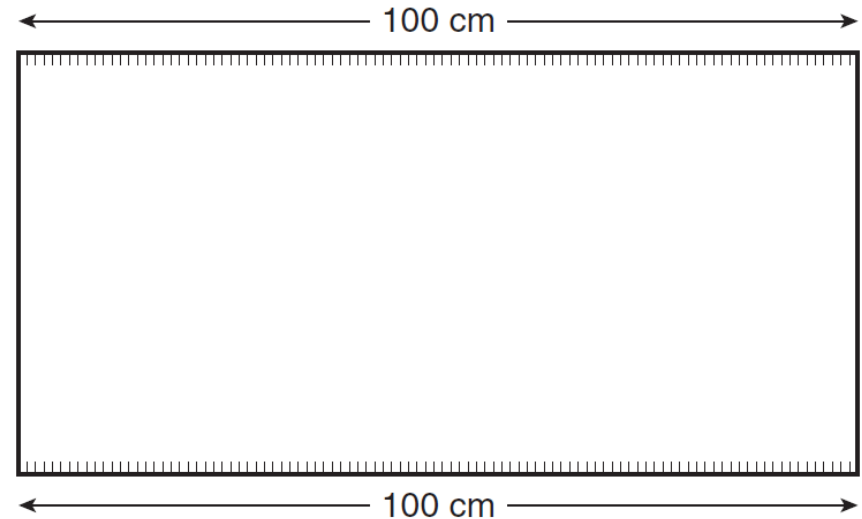
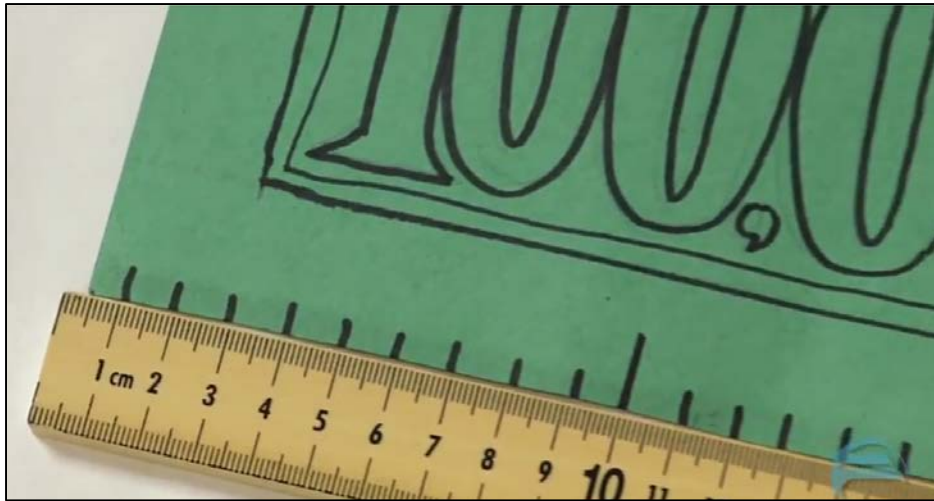
# “The Case of the Gigantic \$100,000 Bill” Lesson

- Developed based on an activity first published by the Federal Reserve Bank of Minneapolis in the late 1970s.
- Main activity uses a meter-long piece of paper, which represents a \$100,000 bill.



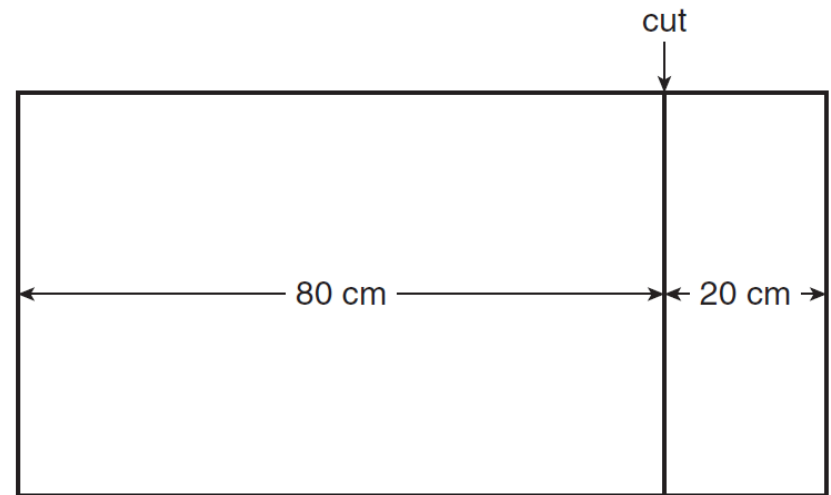
# “The Case of the Gigantic \$100,000 Bill” Lesson

- It is essential that the paper is exactly one meter long because that makes it easy to calculate percentages for the reserve requirement and the excess reserves.



# “The Case of the Gigantic \$100,000 Bill” Lesson

- Assume that the reserve requirement is 20 percent. The \$100,000 bill gets deposited into a bank. The bank keeps 20 percent (20 cm) in reserve and lends the other 80 percent.

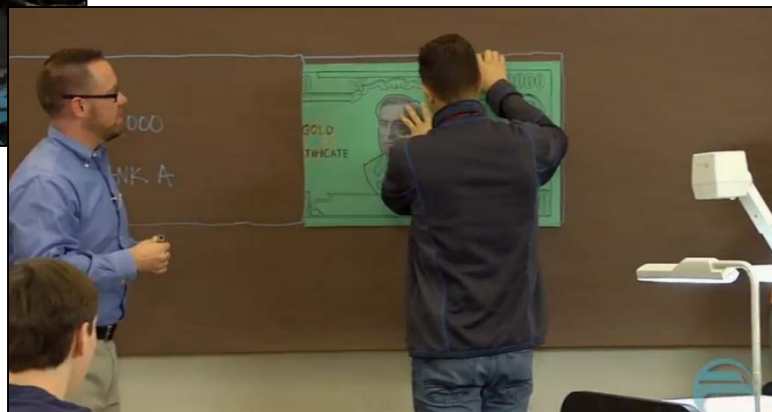


# “The Case of the Gigantic \$100,000 Bill” Lesson

- Throughout the lesson, each amount of money that is created is traced on the board so that students can see how money is being created and the money supply is increasing through each successive loan and deposit cycle.



\$100,000	\$80,000
-----------	----------





# “The Case of the Gigantic \$100,000 Bill” Lesson

Students keep track of the amount of money created through the loan and deposit cycles on an handout while the teacher completes the same worksheet on a visual.

Money Creation Worksheet (KEY)		
Ledger Entries		Money Supply Expansions
<b>Depository Institution A</b> Deposit <u>\$100,000</u> Required reserves (20% reserve requirement) <u>\$20,000</u> Excess reserves <u>\$80,000</u>		
<b>Depository Institution B</b> Deposit <u>\$80,000</u> Required reserves (20% reserve requirement) <u>\$16,000</u> Excess reserves <u>\$64,000</u>		Money created in Round 1 Expansion = <u>\$80,000</u>
<b>Depository Institution C</b> Deposit <u>\$64,000</u> Required reserves (20% reserve requirement) <u>\$12,800</u> Excess reserves <u>\$51,200</u>		Money created in Round 2 Expansion = <u>\$64,000</u>
<b>Depository Institution D</b> Deposit <u>\$51,200</u> Required reserves (20% reserve requirement) <u>\$10,240</u> Excess reserves <u>\$40,960</u>		Money created in Round 3 Expansion = <u>\$51,200</u>
<b>Depository Institution E</b> Deposit <u>\$40,960</u> Required reserves (20% reserve requirement) <u>\$8,192</u> Excess reserves <u>\$32,768</u>		Money created in Round 4 Expansion = <u>\$40,960</u>
The money creation process continues until a total of <u>\$400,000</u> has been created.		



# “The Case of the Gigantic \$100,000 Bill” Lesson

The \$100,000 bill activity is debriefed with a discussion of the simple money multiplier and how the activity would have been different given different reserve requirements.

$$\text{simple money multiplier} = \frac{1}{\text{required reserve ratio}}$$

$$\begin{array}{ccccc} \$80,000 & \times & 5 & = & \$400,000 \\ \text{excess reserves} & \times & \text{simple money multiplier} & = & \text{total amount of money created} \end{array}$$

$$\begin{array}{ccccc} \$75,000 & \times & 4 & = & \$300,000 \\ \text{excess reserves} & \times & \text{simple money multiplier} & = & \text{total amount of money created} \end{array}$$

# Where to Find the Lesson?

- [www.philadelphiafed.org/education/teachers/lesson-plans](http://www.philadelphiafed.org/education/teachers/lesson-plans)  
Look on high school lessons tab
- Hill, Andrew T. “Lesson 22: The Case of the Gigantic \$100,000 Bill,” in *High School Economics, 3<sup>rd</sup> Edition*. New York: Council for Economic Education, 2014, pp. 335-347



# Forthcoming

- In 2016, the Federal Reserve Bank of Philadelphia will release a three-hour online professional development program on money creation.
- That program will center on “The Case of the Gigantic \$100,000 Bill” lesson and includes video lesson demonstrations, helpful teaching hints, and practice with the money creation content.
- Program is currently being tested in a one-month pilot with 18 high school teachers.



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## Money Creation Professional Development Pilot

[Jump to Today](#)




FEDERAL RESERVE BANK OF PHILADELPHIA  
COMMUNITY DEVELOPMENT STUDIES & EDUCATION


Welcome to Teaching About Money Creation, an online professional development program for teachers developed by the Federal Reserve Bank of Philadelphia! Start the class by reading the syllabus below and then complete the [Set-up, Pretest, and Introductions](#) module and [Module 1: Who Creates Money?](#)

**Description:** This three-hour online professional development program, taught by Federal Reserve economic education specialists, covers how to teach about the money creation process. Participants will be introduced to the "Case of the Gigantic \$100,000 Bill" lesson; view a set of short, professionally produced videos in which a master educator teaches the lesson to high school students and provides helpful tips for teaching about money creation; practice money creation content in a series of short, online problem sets; complete a set of short readings; and participate in online discussion boards. Participants should be able to complete the work at their own pace with only a couple deadlines throughout the program. Upon completion, participants in this professional development offering will receive 3.0 hours of professional development credit (Act 48 for Pennsylvania teachers). The content covered in this course can be used to meet state and national standards in social studies, economics, and business education.

**Instructors**



Dr. Andrew T. Hill  
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Biography: [Link](#) (Links to an external site.)



Todd Zartman  
Economic Education Specialist  
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Biography: [Link](#) (Links to an external site.)

**Credit:** Upon completion of the online professional development program, participants will receive 3.00 hours of professional development credit (Act 48 credit in Pennsylvania). Participants must complete the entire online program in order to receive professional development hours.

**Dates:** This professional development program begins on February 1, 2016 and ends on February 29, 2016. The course is designed for you to work through in your own time while adhering to the following due dates. Modules and assignments are designed to be worked in a specific order. In order to progress to the next module, you must complete all of the assignments in the previous module. In most cases, assignments are designed to be worked in a specific order within each module. Modules 3, 4, and the course posttest and evaluation will unlock later in the course.



FEDERAL RESERVE BANK OF PHILADELPHIA

# ***The Money Circle Curriculum Series***



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Federal Reserve Bank of Kansas City

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The views expressed in the presentation are mine and not  
the views of the Federal Reserve Bank of Kansas City or the  
Federal Reserve System.

# *The Money Circle Curriculum*

- 8 standalone lessons that explore money from four perspectives:
  - Theme 1: Interpret the history, functions and characteristics of money
  - Theme 2: Significance of learning, earning and spending on personal financial well-being
  - Theme 3: Apply financial planning and budgeting mechanisms
  - Theme 4: Analyze the role and tools of the Federal Reserve in monetary policy and promoting a healthy economy



# *The Money Circle:* *Money Fundamentals*

## Theme One: Money Fundamentals

### **Interpret the History, Functions and Characteristics of Money**

#### Lesson One: Money Is What Money Does

Through the reading of informational text and a role-play developed by the students, they will demonstrate knowledge about why money takes the shape and form that it does, how the characteristics and functions of money determine what it is, how it works within an economy and how it correlates to periods of history.

#### Lesson Two: Evolution of Money

Students will view examples of various forms of currency through an interactive website, read informational text about the notes, discuss identifying characteristics of currency over time, complete a chart that summarizes the evolution of currency in the United States and further research a specific era relative to currency to complete a written essay.



# *The Money Circle:*

## *Money Fundamentals – Lesson 1*

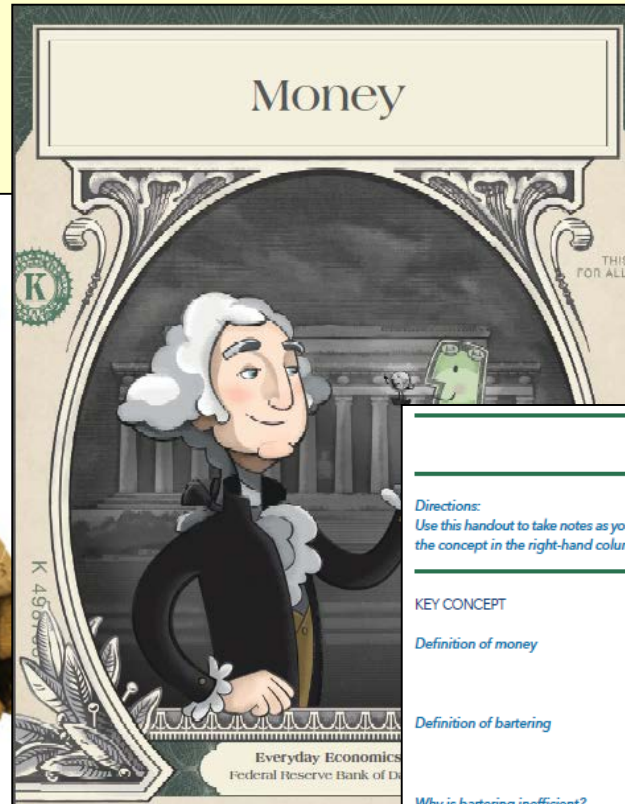
### Money Is What Money Does

- **Overview:** Helps students understand and interpret the functions and characteristics of money through informational text and a role-play developed by the students.
- **Objectives:** Define functions of money, Identify and explain money characteristics and demonstrate how money has changed throughout history
- **Time:** 50-60 minutes



# The Money Circle:

## Money Fundamentals – Lesson 1



### MONEY: KEY CONCEPTS AND REVIEW

#### Directions:

Use this handout to take notes as you read *Money*. List the main concepts in the left-hand column and describe and/or give examples of the concept in the right-hand column. Some key concepts are already listed below to get you started.

#### KEY CONCEPT

#### DESCRIPTION/EXAMPLE

*Definition of money*

*Definition of bartering*

*Why is bartering inefficient?*

*Uses/Functions of money*

1.

2.

3.

*Characteristics of money*

1.

2.

# *The Money Circle:*

## *Money Fundamentals – Lesson 1*

- Early Times: the bartering years
- Changing Times: the years between barter and money today
- Current Times: money of today

**ROUGH TODAY"**

### *Directions:*

*In your small group, develop and outline a 3 to 5 minute skit about money that reflects your given time frame: early times, changing times and current times. The skit must demonstrate the functions and characteristics of money for your time frame. Use the Money booklet for reference. All members in your group must participate. Be prepared to present your skit to the rest of the class. Be creative and be sure to include accurate information from the lesson.*

Our time frame:

---

Key ideas and concepts to share:

---

---

Skit Outline:

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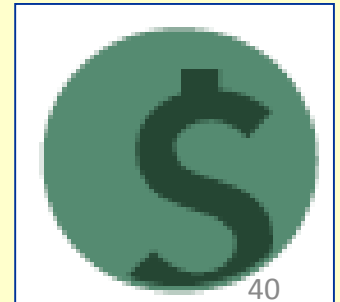
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# *The Money Circle:*

## *Money Fundamentals – Lesson 2*

### Evolution of Money

- **Overview:** Helps students understand the history of money and its role in our nation's past by viewing examples of various forms of currency through an interactive website and informational text.
- **Objectives:** Identify currency design throughout history, explain how money has evolved, research historical events relative to currency design
- **Time:** Two 50-60 minute sessions



# *The Money Circle:*

## *Money Fundamentals – Lesson 2*



CURRENCY TYPE/ERA	CHARACTERISTICS	CHANGES
COLONIAL CURRENCY		
EARLY BANKING IN THE U.S.		
WILDCAT ISSUES		
CONFEDERATE CURRENCY		
FRACTIONAL CURRENCY		



# The Money Circle:

## Money Fundamentals – Lesson 2

### Independence

Colonial and Continental Currency

### Westward Expansion

Early Banking in the United States

Broken Bank Notes & Wildcat Issues

### Civil War

Confederate Currency

Fractional Currency

Demand and Interest-Bearing Notes

### Industrial Revolution

Legal Tender Notes

National Bank Notes

### Metal Standards

National Gold Bank & Treasury Coin Notes

Gold Certificates

Silver Certificates: The Last Metal Standard

### National Stability

Early Federal Reserve Notes and Federal

#### COLONIAL AND CONTINENTAL CURRENCY: A NEW NATION'S CURRENCY

The Colonial economy depended largely on foreign coins, barter, and commodity money. In 1690, the Massachusetts Bay Colony issued the first Colonial currency. Other colonies soon began to issue their own paper currency. Usually denominated in Spanish Milled Dollars, Colonial notes were also denominated in British shillings, pounds, and pence. In 1764, the British declared Colonial currency illegal.

Beginning in 1775, the Continental Congress issued currency to finance the Revolutionary War. These notes, called Continentals, had no backing in gold or silver.

Continentals were backed by the "anticipation" of tax revenues. Easily counterfeited and without solid backing, the notes quickly became devalued, giving rise to the phrase "not worth a Continental." This brief period marked the first time that U.S. currency's value was derived solely from its purchasing power, as it is today.

#### GALLERY



# Find The Money Circle:

[www.kansascityfed.org/education/moneycircle](http://www.kansascityfed.org/education/moneycircle)

## The Money Circle 2.0

These lesson plans for high school students focus on four concepts related to money, from the history of money to its use in their own life and our economy.



Search Over 500+ Economic  
Education Resources

### Resource by audience

#### Economic Education

Educators ▾

For Bankers

For Consumers

Kansas City Traveling Exhibit

Money Museum Tour

### Bite-Size Economics

Discuss the difference between fixed expenses (those costs that do not change) and variable expenses (those costs that can change). Ask students to interview a parent to discover what fixed and variable expenses they pay

### The Money Circle 2.0: An Overview

Teens spend billions each year, but do they really know how money works, how to best manage it and how it keeps our economy going? Advance your high school students' knowledge of money through this free, revamped, comprehensive, eight-lesson curriculum series that will engage and challenge them to apply both personal finance and economic perspectives when it comes to money. Help develop students' awareness as consumers, while improving their decision-making and financial planning skills.

The eight stand-alone lessons include the use of primary sources, video, web-based resources and Federal Reserve research and are all correlated to national standards in economics and personal finance, as well as the Common Core.

[Download the entire curriculum in PDF form here](#), or browse through the individual lessons below.

#### Lessons

[Theme One: Money Fundamentals](#) ▾

[Theme Two: Money Principles](#) ▾

[Theme Three: Money Management](#) ▾

[Theme Four: Money Flow](#) ▾

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# Teaching Tips:

## Is Your Bank Account Safe?

### Teaching Tips: Is Your Bank Account Safe?

"Teaching Tips" provide ways that teachers can integrate current issues and research into their classrooms using Federal Reserve research. In the President's Message, Thomas Hoenig, the former president of the Federal Reserve Bank of Kansas City, discusses what happens when a bank fails and how the Federal Deposit Insurance Corporation (FDIC) steps in following a bank's closing. Read and discuss the article in class using the direct discussion questions and extension activities.

<b>Grade levels:</b>	9-12
<b>Content keywords:</b>	banking, federal deposit insurance corporation, liquidate, teaching tips
<b>Key Concepts:</b>	Banking, Federal Reserve System, Economics
<b>Resource type:</b>	Article, Activity
<b>Time requirement:</b>	30-60 minutes



### View Resources

[Teaching Tips: Is Your Bank Account Safe?](#)

# Teaching Tips:

## Is Your Bank Account Safe?

Find it by going to:

- [www.kansascityfed.org/education](http://www.kansascityfed.org/education)
- Search for “teaching tips”
- Choose “Is Your Bank Account Safe?”





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The views expressed in the presentation are mine and not the views of the Federal Reserve Bank of St. Louis or the Federal Reserve System.



# PAGE ONE Economics

the back story on front page economics

## NEWSLETTER

March ■ 2013

### Money and Inflation: A Functional Relationship

Scott A. Wolla, Senior Economic Education Specialist

*"Economists like to argue that money belongs in the same class as the wheel and inclined plane among ancient inventions of great social utility. Price stability allows that invention to work with minimal friction."*  
—Federal Reserve Chairman Ben S. Bernanke, February 24, 2006

In its broadest sense, **money** is anything generally accepted in exchange for goods and services. In other words, money is defined by the functions it serves in the economy. In fact, while money has taken many forms over the ages—cowry shells, furs, beads, even large stone wheels—useful forms of money share three basic functions.

First, money is a **store of value**, which means that it holds its value over time. You can put money in a drawer today and spend it next year, when it will buy approximately the same amount of goods and services (minus inflation). Second, money is a **unit of account**, which means it is a standard measure of value. Listen to a conversation between two people about a recent purchase and you are sure to hear prices quoted in terms of money, not as hours worked or the equivalent value of the purchase in corn (or some other commodity). Third, money is a **medium of exchange**, which means it is generally accepted as a method of payment. I accept my paycheck in U.S. dollars because I know dollars are readily accepted for payment at the grocery store, gas station, and nearly anywhere I want to buy goods and services.

#### Money Versus Barter

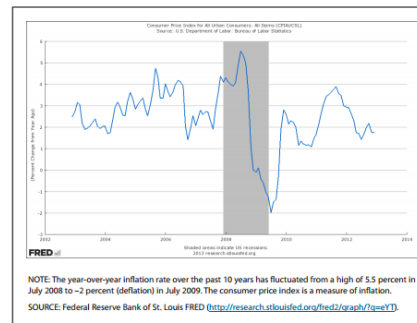
You might not think of it often, but money facilitates transactions in amazing ways. Think of conducting an economic transaction without money—a situation called **barter**. For barter to work properly, you would need to find someone with the good or service you want; in turn, that person would need to want to trade for what you have to offer. A difficult task to be sure. The situation in which two people want to barter with each other is known as the **double coincidence of wants**. Imagine an accountant who needs her car fixed. Under a barter system she would need to find someone who needed some tax advice in exchange for car repairs. She might find it difficult, and time consuming, to make such a transaction. Such searches for barter partners are inefficient and wasteful.

So, how does money solve the double coincidence of wants problem? In an economy based on money, the accountant provides her accounting services to whoever is willing and able to pay money for them. She then uses the money she earned to pay for car repair services from a mechanic, who is more than willing to accept cash for car repairs. Both parties to the transaction are willing to exchange goods or services for money. In the end, everyone involved is more

## PAGE ONE Economics

NEWSLETTER

Federal Reserve Bank of St. Louis 2



readily satisfied. Using money allows a more efficient outcome because it cuts down on **search costs**, and it allows workers to specialize in what they do best.

#### Money and Inflation

Even when you have money available to purchase goods and services, as in the accountant/mechanic example, money's ability to serve its functions has limits. High rates of **inflation**, for example, make money less useful in many ways. First, when inflation rates are very high, the longer you hold money as cash, the more value it loses, so you attempt to spend it immediately rather than hold it. In this situation, money does not function as an effective store of value. In fact, if people expect high rates of inflation and the rate of their transactions increases as a result, inflation will increase even further. Second, if inflation rises to very high rates, money's usefulness as a unit of account diminishes. If prices are changing rapidly, communication between buyers and sellers becomes complicated. Comparing prices becomes complex if all prices are rising rapidly. Third, inflation reduces the usefulness of money as a medium of exchange. In the case of extreme inflation (hyperinflation), people may abandon the use of one currency for a more stable one. In Zimbabwe, for example, the inflation rate rose from 24,411 percent in 2007 to an estimated 89.7 sextillion (89,700,000,000,000,000,000,000) percent in November 2008 (Waller, 2011). Hyperinflation was so problematic that people abandoned the Zimbabwean dollar, preferring to conduct transactions in U.S. dollars or South African rands. The Zimbabwean currency became nearly useless as money and was removed from circulation in 2009 (Central Intelligence Agency, 2013). However, a market in Zimbabwean dollars has since developed for currency collectors and souvenir seekers—you can buy a Zimbabwean \$100 trillion dollar bill for approximately 5 U.S. dollars (McGroarty and Mutsaka, 2011).

**Page One Economics provides a simple, short overview of a current economic event that offers students an opportunity to use close reading strategies.**

Name \_\_\_\_\_ Period \_\_\_\_\_

Federal Reserve Bank of St. Louis *Page One Economics Newsletter*:  
"Money and Inflation: A Functional Relationship"

After reading the article, answer the following questions.

1. How does money solve the double coincidence of wants problem that arises in a barter system?

2. In the table below, describe each of the functions of money and how inflation reduces the ability of each of these functions.

Function	Description of function	How inflation reduces this function
Store of value		
Unit of account		
Medium of exchange		

3. Why is an inflation goal of 2 percent better than zero percent?

Teacher's Guide

Federal Reserve Bank of St. Louis *Page One Economics Newsletter*:  
"Money and Inflation: A Functional Relationship"

After reading the article, answer the following questions.

1. How does money solve the double coincidence of wants problem that arises in a barter system?

In a barter system, you would need to find someone with the good or service you want; in turn, that person would need to want what you have to offer. In a money-based economy, people sell their labor for wages (money) and buy the goods and services they want with money. Finding people willing to trade goods and services in exchange for money is easier than barter—it reduces search costs.

2. In the table below, describe each of the functions of money and how inflation reduces the ability of each of these functions.

Function	Description of function	How inflation reduces this function
Store of value	Money holds its value over time.	Inflation is a general, sustained upward movement in prices for goods and services in the economy—that is, inflation reduces the purchasing power of money. So, during periods of inflation, money is a less effective store of value.
Unit of account	Money is a standard measure of value.	If all prices are rising rapidly, comparing prices becomes complex and money is less useful to measure value.
Medium of exchange	Money is widely accepted as a method of payment.	If a country's inflation becomes extreme (hyperinflation), its currency will be less appealing to buyers and sellers; another country's currency may become preferable as a more effective and stable medium of exchange.

3. Why is an inflation goal of 2 percent better than zero percent?

Two percent is considered a low rate of inflation, which only slightly distorts the functions of money. When the inflation rate is less than 2 percent, the danger of deflation exists—and deflation is associated with very weak economic conditions. An inflation rate greater than zero maintains an "inflation buffer," which reduces the chances of deflation should the economy start to weaken.

***The Teacher's Guide includes student questions and a teacher answer key.***

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## Monetary Policy Online Learning Module

# Monetary Policy

Welcome

Lesson 1

**Lesson 2**

- Introduction
- The Federal Reserve System
- Managing the Money Supply: Why Independence Matters
- Knowledge Check #3
- Achieving the Dual Mandate
- Knowledge Check #4
- The Types of Monetary Policy**
- Time Lags
- Knowledge Check #5


[Glossary](#)


### The Types of Monetary Policy

Depending on economic conditions, the Federal Reserve can institute one of two types of monetary policy. Let's watch a news report to learn about each one.

## The Economy & You

### NEWS REPORT



[Proceed to the Next Page](#) 

## Using the Instructors Management Panel (IMP)

<http://www.stlouisfed.org/education>

**ONLINE COURSE LOGIN:**

- STUDENTS
- TEACHERS

**econlowdown®**  
click.teach.engage.

EVENTS  
SUBSCRIBE  
ENDORSEMENTS  
TEACHER ED  
PARTNERS  
CONTACT US  
GLOSSARY  
FLASH CARDS

Econ Lowdown provides award-winning, free classroom resources for K-16 educators to teach about economics, personal finance, money and banking, and the Federal Reserve. We also have free resources for consumers who want to learn about these topics.

Check out our extensive list of online courses, and see what teachers have to say on our endorsements page. Explore opportunities for teacher education, and for becoming a school partner with the Federal Reserve Bank of St. Louis.

**RESOURCES**

Search all Econ Lowdown resources

Use the filters below to find the education resources relevant to your needs.

ELEMENTARY SCHOOL + MIDDLE SCHOOL + HIGH SCHOOL + COLLEGE + CONSUMERS +

SELECTED FILTERS: [Clear All](#)

Language: ▾ Subject: ▾ Resource Type: ▾ Concept: ▾ SORT BY A-Z ▾



# econlowdown

click. teach. engage.

## Log In

Username

I-5257083

Password

••••••••

SUBMIT

New to the site? Lets get you started!

REGISTER



Welcome to the Federal Reserve Bank of St. Louis Online Learning Module Instructor Management Panel presented by the Bank's Economic Education department. This tool allows you to:

- assign your students their student code and password
- register your students for online courses and videos
- monitor student progress in each of the online courses
- view the results of students' pre- and post-test results
- complete professional development

## Features

### Discussion Board

Students and teachers may discuss key economic concepts in this virtual classroom. Discussion board questions are included on specific pages within the courses. Teachers may also add their own questions to the discussion board. In some instances, teacher guidance is provided for suggested responses to the questions.

### Online Polling

Similar to classroom response systems, teachers may virtually send questions to their students to check comprehension, gain attention and generate discussion. Summaries of the student responses can be shown in real time to both instructors and students.

### Assessment Reporting

You may use the student data section to determine what parts of the course students have completed. You may also view the pre-and post-test scores. These data may be used by the Federal Reserve Bank of St. Louis to evaluate the success of its programs.

# Instructor Management Panel

- Enroll students
- Track student progress
- Access pre-test and post-test scores
- Read discussion board content

The screenshot shows the 'econlowdown' website interface. At the top, there's a green header with the logo 'econlowdown®' and the tagline 'click. teach. engage.'. Below this is a navigation bar with links: 'MY CLASSROOMS', 'COURSES', 'VIDEO Q&A', and 'PROFESSIONAL DEVELOPMENT'. A welcome message 'WELCOME MARK BAYLES' is followed by links for 'FAQ', 'MANAGE ACCOUNT', and 'LOG OUT'. The main content area on the left greets the user with 'Hi, mark.' and a playful note 'Another lunch in the cafeteria? Yeah!'. It provides instructions on how to use the 'My Classrooms', 'View Courses', 'Video Q&A', and 'Professional Development' sections. At the bottom of this section are four green buttons labeled 'My Classrooms', 'View Courses', 'Video Q&A', and 'Professional Development'. A footer note provides contact information: 'If you have any questions or concerns, please contact us at [economiceducation@stls.frb.org](mailto:economiceducation@stls.frb.org).' On the right side, there's a 'New Features' section titled 'Test Reset Button' with a circular arrow icon. The text explains that users can now reset student post-test scores through the student progress page, but to use this feature judiciously and not offer retakes as an automatic option. It mentions data collection for effectiveness and encourages students to do their best the first time. The section concludes with 'Thank you, The Econ Lowdown Team' and a set of navigation dots.

econlowdown®  
click. teach. engage.

WELCOME MARK BAYLES | FAQ | MANAGE ACCOUNT | LOG OUT

MY CLASSROOMS COURSES VIDEO Q&A PROFESSIONAL DEVELOPMENT

Hi, mark.

*Another lunch in the cafeteria? Yeah!*

Click on **My Classrooms** to check your students' progress, check students' grades, or perform a number of other classroom management tasks.

If you would like to offer additional online courses to your students, click on **View Courses** to preview.

If you would like to preview videos to offer to your students, click on **Video Q&A**.

If you would like to sign up or view your progress for graduate credit, CPDU credit, or FRB certification, click on **Professional Development**.

My Classrooms View Courses Video Q&A Professional Development

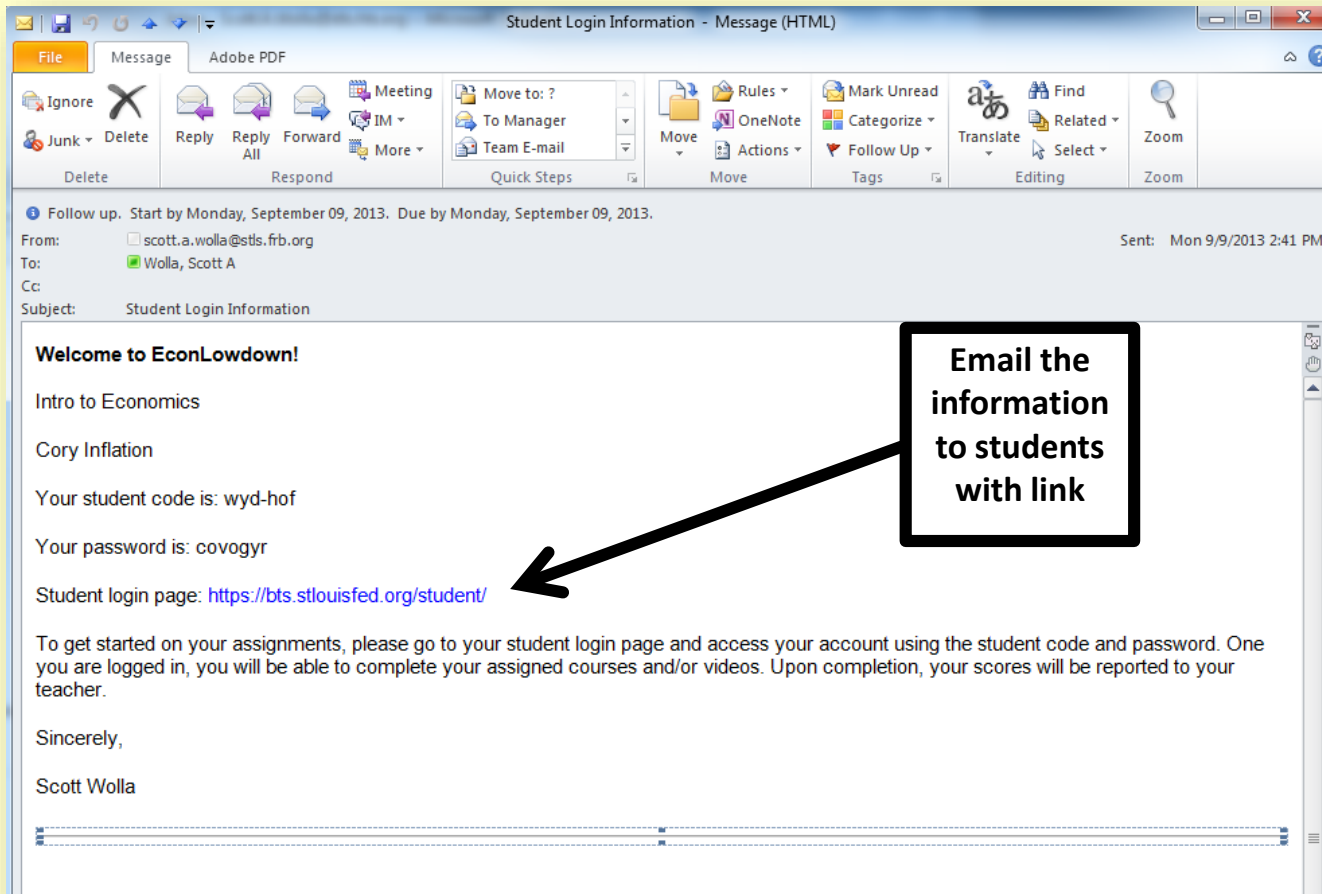
If you have any questions or concerns, please contact us at [economiceducation@stls.frb.org](mailto:economiceducation@stls.frb.org).

**New Features**

**Test Reset Button**

You asked for it! You are now able to reset student post test scores through the student progress page. Please use this feature judiciously; do not offer retakes as an automatic option for your students. We collect data to determine the effectiveness of our testing resources using the original post test scores, so please encourage your student to do their best the first time.

Thank you,  
The Econ Lowdown Team



# Student Portal

**econlowdown**  
click. teach. engage.

## Log In

Username

Password

**SUBMIT**



Welcome to the Federal Reserve Bank of St. Louis Online Learning Program

As you know, your teacher has assigned some online coursework for you to complete. To get started, log in using the student code and password supplied to you by your teacher. Once you are logged in, you will be provided with links to the course(s) your teacher has assigned to you.

## *Money and Inflation - The Feducation Video Series*

Feducation: Episode 1—Money and Inflation

<b>M</b>	The <b>money</b> supply in the economy.
<b>V</b>	The <b>velocity</b> of money.
<b>P</b>	The overall <b>price</b> level.
<b>Q</b>	The <b>quantity</b> of goods and services.

06:52 11:23 CC



## ***Money and Inflation - The Feducation Video Series***

1 of 5

What causes inflation?

- ☒ a. Increases in tax rates.
- ☐ b. Excessive corporate profits.
- ☐ c. Money supply growing at a faster rate than velocity.
- ☐ d. Money supply growing at a faster rate than the overall production of goods and services.

Submit

***What Makes Something Useful as Money?***  
***Explore Economics Video Series***



## The Fed's Toolbox

### Lesson Authors

Scott Wolla, Federal Reserve Bank of St. Louis  
Kris Bertelsen, Federal Reserve Bank of St. Louis—Little Rock Branch  
Princeton Williams, Federal Reserve Bank of Dallas

### Standards and Benchmarks (see page 36)

### Lesson Description

In this lesson, students learn that the Federal Reserve System (the Fed) uses its monetary policy tools to influence the level of reserves in the banking system. Students participate in a simulation to demonstrate how the Fed uses open market operations to achieve its dual mandate of price stability and maximum employment. Students also learn about other monetary tools: the discount rate, reserve requirements, and interest on reserves, a recent monetary policy tool. Finally, students apply their knowledge of monetary policy to suggest possible Federal Reserve policy responses to proposed economic conditions.

### Compelling Question

What tools does the Federal Reserve System have at its disposal?

### Grade Level

9-12

### Concepts

Bank reserves  
Discount rate  
Dual mandate  
Federal funds rate  
Federal Reserve System  
Interest  
Interest on reserves  
Interest rate  
Monetary policy  
Open market operations  
Reserve requirements

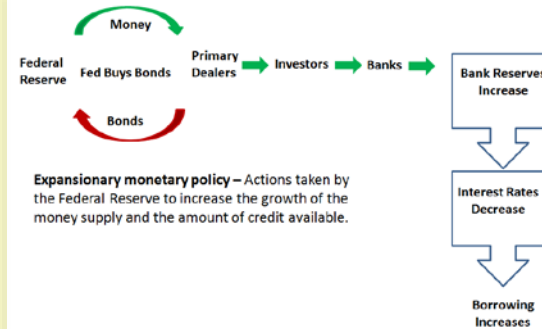
© 2014, Federal Reserve Bank of St. Louis. Permission is granted to reprint or photocopy this lesson in its entirety for educational purposes, provided the user credits the Federal Reserve Bank of St. Louis, [www.stlouisfed.org/education\\_resources](http://www.stlouisfed.org/education_resources).

1

### The Fed's Toolbox

FEDERAL RESERVE BANK OF ST. LOUIS ECONOMIC EDUCATION

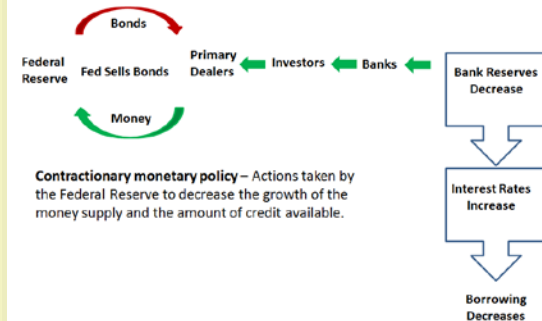
#### Slide 6: Expansionary Policy



### The Fed's Toolbox

FEDERAL RESERVE BANK OF ST. LOUIS ECONOMIC EDUCATION

#### Slide 7: Contractionary Policy



## ***Functions of Money***

### ***The Economic Lowdown Podcast Series, Episode 9***



## The Free Silver Movement and Inflation

### Lesson Author

Scott Wolla, Federal Reserve Bank of St. Louis

### Standards and Benchmarks (see page 28)

### Lesson Description

Students learn that money is a medium of exchange that facilitates economic activity. Next, students learn the relationship between the money supply and inflation by participating in an inflation auction using gold and silver notes to better understand the historic debate of the Free Silver Movement. Students then read William Jennings Bryan's "Cross of Gold" speech to relate the historical context. The students use historical data to calculate income, fixed expenses, and variable expenses of a farmer to further understand the historical argument presented by the Free Silver Movement. Finally, students analyze two political cartoons against the Free Silver Movement.

### Grade Level

7-10

### Economic Concepts

Barter	Inflation
Deflation	Medium of exchange
Fiat money	Variable expenses
Fixed expenses	
Free Silver Movement (late nineteenth century)	

### Objectives

- Students will
- define inflation and deflation,
  - define money as anything widely accepted as final payment for goods and services,
  - describe the relationship between the money supply and inflation,

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1

### Visual 5: Political Cartoon 2



Judge, New York: Judge Publishing Company, 1896; [http://fraser.stlouisfed.org/bitstream/handle/fraser/16818\\_06\\_0001.pdf](http://fraser.stlouisfed.org/bitstream/handle/fraser/16818_06_0001.pdf).


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19



# Professional Development Opportunities for Teachers

**econlowdown**<sup>®</sup>  
click.teach.engage.  
Brought to you by the Federal Reserve Banks of Atlanta, Boston, Philadelphia, and St. Louis

MARK BAYLES  | [FAQ](#) | [MANAGE ACCOUNT](#) | [LOG OUT](#)

 MY CLASSROOMS COURSES VIDEO Q&A **PROFESSIONAL DEVELOPMENT**

## Click, Learn, and Teach

It's tough for you to participate in professional development and still be in the classroom with your students. You have a lot to do and so little time to get it all done. **Click, Learn, and Teach**, a series of online professional development programs from the Federal Reserve Banks of Atlanta, Boston, Philadelphia, and St. Louis, is designed to make it easier! There are three options for you to consider, each with a different level of time commitment and a different level of educational attainment: Graduate Credit, FRB Certification, and CPDU Credit. To learn more about these options, click on the links below.

**1. GRADUATE CREDIT**

One hour of graduate credit can be acquired through the University of Colorado for completing 15 hours of course work, including readings; participation in an online, interactive program along with your students; and completion of the unit assessment. Because you will be receiving graduate credit, it will be necessary to apply to the University of Colorado and pay any fees associated with registration or with the course itself.

[More...](#)

**2. FRB CERTIFICATION**

You can become an FRB certified teacher on an economic topic, such as inflation or unemployment, by participating in 10 hours of lessons, readings, and online programming. You can construct this program to suit your and your students' interests. There is no fee or additional registration process.

[More...](#)

**3. CPDU CREDIT**

You can earn one hour of CPDU credit by working with your students to complete an online course on topics addressing concepts in economics and personal finance. There is no fee or additional registration process. Check to see if your state is included in this option.

[More...](#)

You are currently signed up for: **Graduate Credit, FRB Certification.** [View Progress.](#)

# Professional Development Opportunities for Teachers

click teach engage  
Brought to you by the Federal Reserve Banks of Atlanta, Boston, Philadelphia, and St. Louis

MARK BAYLES | FAQ | MANAGE ACCOUNT | LOG OUT

MY CLASSROOMS COURSES VIDEO Q&A **PROFESSIONAL DEVELOPMENT**

## Topics

**PROFESSIONAL DEVELOPMENT OPTIONS** DESCRIPTION PROGRESS PAGE TOPICS MESSAGES [2]

Name	Description		Signed Up for Grad Credit	Signed Up for FRB Cert
GDP	Gross domestic product is the measure of a nation's output in a given year. When divided by population, it provides a gauge of the standard of living enjoyed by the people of the nation. It's useful for your students to understand how GDP is calculated and what GDP growth means, along <a href="#">more...</a>	<a href="#">topic detail</a>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inflation	People frequently confuse higher gas or food prices with inflation. Increases in the prices of particular goods differ from a persistent rise in the overall price level, or inflation. Each of the five components below provides a classroom exercise to help students better understand inflation, its <a href="#">more...</a>	<a href="#">topic detail</a>	<input type="checkbox"/>	<input type="checkbox"/>
Monetary Policy	People want to live in a stable economy. This usually means they want enough jobs for those who want to work and a predictable price level so they can make wise spending and saving choices. Monetary policy conducted by a country's central bank plays a significant role in maintaining this ki <a href="#">more...</a>	<a href="#">topic detail</a>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Money	Money has taken many forms through the ages: shells, wheels, beads and even cows. All forms, though, have always had three things in common. Each of the five components below provides a classroom exercise to help students better understand money, its functions, characteristics, and types. Student <a href="#">more...</a>	<a href="#">topic detail</a>	<input type="checkbox"/>	<input type="checkbox"/>
Unemployment	Unemployment has been in the headlines since the financial crisis began in late 2007. Your students have certainly been hearing about it and, unfortunately, many of their families may be experiencing unemployment firsthand. Each of the five components provide a classroom exercise to help students <a href="#">more...</a>	<a href="#">topic detail</a>	<input type="checkbox"/>	<input type="checkbox"/>

# ***Teaching with The Classroom Economist***



Amy Hennessy  
Director, Economic Education  
Federal Reserve Bank of Atlanta  
[amy.Hennessy@atl.frb.org](mailto:amy.Hennessy@atl.frb.org)  
404-498-7478

**The views expressed in the presentation are mine and not the views of the Federal Reserve Bank of Atlanta or the Federal Reserve System.**

[www.frbatlanta.org](http://www.frbatlanta.org)

# The Classroom Economist

The screenshot shows the homepage of the Federal Reserve Bank of Atlanta. The top navigation bar includes links for Careers, Contact Us, A to Z index, Follow the Fed, Publications, and Home. Below this is a search bar with the text 'frbatlanta.org' and a search button. The main navigation menu features several categories: Research & Data, Economy Matters, Banking, News & Events, Education, Community Development, and About the Fed. The 'Education' category is highlighted with a red box, and a red arrow points to it from the top right. A dropdown menu is visible under 'Education', with 'Classroom Economist' highlighted by a red box and a red arrow pointing to it. Other links in the dropdown include Classroom Tools, Katrina's Classroom, The Economy, Publications, Professional Development, and Tours. Below the dropdown, there are links for Inflation Project, Jobs Calculator, Labor Market Spider Chart, macroblog, Teacher Workshops, and Wage Growth Tracker. The main content area features a 'Highlights' section with a portrait of Dennis Lockhart and a headline 'Post-Liftoff, Peering into 2016'. A 'Regional Data' section is visible at the bottom right.

FEDERAL RESERVE BANK of ATLANTA

Search:  Search

Research & Data Economy Matters Banking News & Events **Education** Community Development About the Fed

**Classroom Economist**

Classroom Tools  
Contact Us  
Professional Development  
Tours  
Inflation Project  
Jobs Calculator  
Labor Market Spider Chart  
macroblog  
Teacher Workshops  
Wage Growth Tracker

Highlights

Post-Liftoff, Peering into 2016

Atlanta Fed President and CEO Dennis Lockhart speaks to the Rotary Club of Atlanta on January 11, 2016, about monetary policy, factors that could influence the economy in 2016, and his outlook for the coming year.

Read more

Regional Data

# Money and Banking

**Classroom Economist**

- Classroom Tools
- Katrina's Classroom
- Contact Us
- The Economy
- Professional Development
- Publications
- Tours

FEDERAL RESERVE BANK of ATLANTA

## Classroom Economist

Welcome to the **Classroom Economist**, our online multimedia teaching package featuring a number of resources to enhance your teaching of core economic topics.

Each module features video content that covers key concepts, with content ranging from informational videos to lectures from economists and master teacher lesson demonstrations. A voice-over **PowerPoint lesson** features a narrator speaking over slides. Also available is a **SMART Board lesson** on the topic. (Even if you don't have a SMART Board, you can open and use the lessons; PowerPoint versions of the lessons are also included. See the instructions for using SMART files without a board.)

The **Test Your Knowledge interactive quiz** gauges students' understanding—and yours—of the lesson. (You must view the quiz in slideshow mode. On the ribbon, select the Slide Show tab, then select From Beginning.) Finally, a **resources guide** provides links to a number of online tools that supplement the other materials.

**Banking** Economic Indicators Federal Reserve Infographics

These modules focus on topics related to banking.

**Fractional Reserve Banking**

The Classroom Economist looks into the inner workings of fractional reserve banking and answers these questions: What role does the Federal Reserve play in the U.S. banking system? What is the money creation potential of deposits? What is the money multiplier?

[View module](#)

**What Is Money?**

In this edition, the Classroom Economist offers a close look at money—its definition, the problem it solves, what fiat money accomplishes, and how the Yapese used giant wheels of stone for money.

[View module](#)

# What is Money? Module

[Classroom Economist](#) | [Classroom Tools](#) | [Katrina's Classroom](#) | [Contact Us](#) | [The Economy](#) | [Professional Development](#) | [Publications](#) | [Tours](#)

## Classroom Economist



### Classroom Economist

- ▶ Classroom Tools
- ▶ Katrina's Classroom
- ▶ Contact Us
- ▶ The Economy
- ▶ Professional Development
- ▶ Publications
- ▶ Tours

### What is Money?

In this edition, the Classroom Economist offers a close look at money—its definition, the problem it solves, what fiat money accomplishes, and how the Yapese used giant wheels of stone for money.

### Lesson components

- SMART Board file to accompany lesson procedures: Early American Money
- [SMART Board file to accompany lesson procedures: What is Money?](#)
- Narrated presentation
- Test Your Knowledge interactive
- Resources guide
- Lesson: Why Money?

### Videos

- An Economist's Perspective
- Lesson demonstration

### RELATED LINKS

- Classroom Economist
- Classroom Tools
- *Dollars & Cents: Fundamental Facts about U.S. Money*
- *Paying for It: Checks, Cash, and Electronic Payments*
- How to open SMART notebook without the SMART software

### Related Links on Other Sites

- Federal Reserve Education



# Video Q & A

MY CLASSROOMS COURSES VIDEO Q&A PROFESSIONAL DEVELOPMENT

VIDEO NAME # IN SERIES

Classroom Economist	23
Continuing Feducation	2
Economic Lowdown	7
Explore Economics	3
Fed Explained	8
Feducation	4
Financial Fables from the Fed	4
In Plain English	1
Katrina's Classroom	4
No-Frills Money Skills	5
Personal Finance 101 Conversations	6
Return to Jekyll Island	1
Tools for Enhancing The Stock Market Game™: Invest it Forward™	4

## Classroom Economist

+ ADD ALL TO CLASSROOM

### Video Series Description

The Classroom Economist video series features Atlanta Fed economists discussing key economic topics. Watch these videos to learn about inflation, unemployment, gross domestic product, money, banking, monetary policy, and the history of central banking in the U.S.

#### Classroom Economist: Characteristics of Unemployment

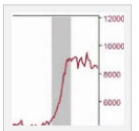
Q PREVIEW VIDEO

+ ADD TO CLASSROOM

Melinda Pitts, Atlanta Fed Director of the Center for Human Capital Studies, explains the characteristics of unemployment in this brief video.

[VIEW VOLUNTARY NATIONAL CONTENT STANDARDS IN ECONOMICS](#)

[VIEW ADDITIONAL RESOURCES](#)



#### Classroom Economist: Early Forms of Money?

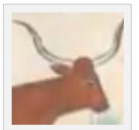
Q PREVIEW VIDEO

+ ADD TO CLASSROOM

Mike Bryan, vice president and senior economist at the Federal Reserve Bank of Atlanta, talks about the early forms of money in this brief video.

[VIEW VOLUNTARY NATIONAL CONTENT STANDARDS IN ECONOMICS](#)

[VIEW ADDITIONAL RESOURCES](#)



# Video Q & A

DESCRIPTION <b>STUDENT PROGRESS</b> ACTIVE DATES				
Show <b>25</b> entries		Search: <input type="text"/>		<b>Export CSV</b> <b>Printable</b>
FIRST NAME	LAST INITIAL	# OF TIMES VIEWED	QUIZ ATTEMPTS	QUIZ SCORE
Student A		1	0	-
Student AA		0	1	40
Student AB		0	1	70
Student AC		1	1	100
Student AD		1	3	90
Student AE		0	1	100

# Where Do You Bank?



## Where Do You Bank?

### WHY IS A BANK BETTER THAN A PIGGY BANK?

- Keeps your money safe and secure.
- Helps you develop sound financial management.
- Creates financial stability.
- Helps you plan for emergencies.
- Offers financial services to help you manage spending, saving, payments, and investments.



### WHAT'S IMPORTANT TO YOU?

Factors to Consider in Choosing Banking Services

ACCESSIBILITY	ACCOUNT FEATURES	LOCATION
24-hour access	Account fees	Online only
Online banking	Overdraft protection	Physical locations
Mobile banking	Availability of funds	ATM locations
Smartphone apps	Interest rates	Convenience
Direct deposit	ATM & debit cards	Proximity



## LIQUIDITY

How easily an asset can be converted into cash, or the ready availability of money

**MORE LIQUID**

- Cash**  
During an emergency you may need quick access to cash to pay for goods and services.
- Checking account**  
Designed for frequent transactions.
- Savings account**  
Often used for emergency funds and short-term savings goals.
- Money market account**  
Generally offers higher rates of return on deposit than checking or savings accounts.
- Certificate of deposit**  
Has minimum opening balance requirements and may have penalties for early withdrawals.

**LESS LIQUID**

## SECURITY



**\$250,000** The amount covered for each depositor for each account in an FDIC insured bank.

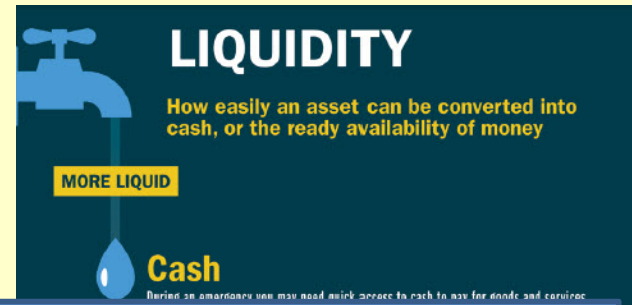
Source: Federal Deposit Insurance Corporation, Deposit Insurance, [www.fdic.gov/deposit/](http://www.fdic.gov/deposit/)

**FRBATLANTA.ORG**  
EDUCATION RESOURCES

**KATRINA'S CLASSROOM** **IN THE AFTERMATH**



# Poster Order Form



<https://www.frbatlanta.org/forms/education/infographics-order.aspx>



#### ACCESSIBILITY

24-hour access  
Online banking  
Mobile banking  
Smartphone apps  
Direct deposit

#### ACCOUNT FEATURES

Account fees  
Overdraft protection  
Availability of funds  
Interest rates  
ATM & debit cards

#### LOCATION

Online only  
Physical locations  
ATM locations  
Convenience  
Proximity

#### LESS LIQUID

## SECURITY



**\$250,000**

The amount covered for each depositor for each account in an FDIC insured bank.

Source: Federal Deposit Insurance Corporation, Deposit Insurance, [www.fdic.gov/deposit/](http://www.fdic.gov/deposit/)

**FRBATLANTA.ORG**  
EDUCATION RESOURCES

**KATRINA'S  
CLASSROOM**

**IN THE AFTERMATH**



# *How to Ask a Question*

Use the chat feature in the  
webinar  
(**Ask Question** button  
on bottom of screen)