

THE STORY OF THE FEDERAL RESERVE SYSTEM

High School Lesson Plan

Standards

New York

- 12.G5b. On various issues, certain governmental branches and agencies are responsible for determining policy. Those who create public policies attempt to balance regional and national needs, existing political positions and loyalties, and sources of political power.
- 12.E4c. The Federal Reserve is the government institution responsible for managing the nation's monetary policy, including regulating the amount of money in circulation and interest rates.

New Jersey

- 9.1.12.A.8 Analyze different forms of currency and how currency is used to exchange goods and services.

Connecticut

- CIV 9–12.5 Evaluate citizens' and institutions' effectiveness in addressing social and political problems at the local, state, tribal, national, and/or international level.
- ECO 9–12.2 Generate possible explanations for a government role in markets when market inefficiencies exist.

NCSS

- Production, Distribution, and Consumption
 - Knowledge: Learners will understand:
 - The roles of institutions that are designed to support and regulate the economy (e.g., the Federal Reserve, and the World Bank)
 - How interest rates rise and fall in order to maintain a balance between loans and amounts saved

C3 Framework

- D2.Eco.6.9-12. Generate possible explanations for a government role in markets when market inefficiencies exist.



Grade Level

9-12

Time Required

120 minutes

Compelling Question

Why do you trust the money in your pocket?

Supporting Questions

What is monetary policy?

What role does bank supervision play in supporting a stable economy?

What are financial services?

Objectives

- Define **interest rate**
- Explain how changes in **interest rates** change behavior.
- Explain why the **Federal Reserve System** changes **interest rates** to conduct **monetary policy**
- Identify reasons for bank supervision
- Evaluate the role of stress tests in the economy
- Summarize the different **financial services** provided by the **Federal Reserve System**
- Connect these **financial services** to everyday life

Materials

- Handout 1: Interested in Interest
- Handout 2: The Interest Rate Lever
- Handout 3: Monetary Policy Review
- Handout 4: Bank Supervision
- Handout 5: The Fed at the Bank
- Handout 6: The Federal Reserve System as a Bank
- Handout 7: The Federal Reserve System and You



Procedures

Supporting Question 1: What is monetary policy?

1. Begin the lesson by asking students if they would lend money to a friend and not charge anything extra. (*Students' answers will vary. Some are likely to be willing to lend money to a friend, while others may not be.*) Ask students if they would lend money to a stranger and not charge anything extra. (*Some students may still be willing, but it is likely that more students may be skeptical.*) Ask students why they would charge extra to lend money to a person, whether it is to a friend or not. (*Students' answers may vary, with possible reasons including wanting to make sure they get repaid or wanting to be paid for their time or effort.*)
2. Explain to students that an **interest rate**¹ is the price paid for using borrowed money. The **interest rate** is expressed as a percentage of the amount borrowed. As an example, explain to students that if they borrow \$100 for one year at 6% interest, at the end of the year they will pay back \$106. \$100 is the amount borrowed, and \$6 is the interest owed.
3. Ask students why someone who is lending money would charge interest. (*Students will likely answer that because they loaned their money another person, it is not available for them to spend now. Interest reflects the compensation for not being able to spend your money now.*) Explain that just as they would not be likely to lend money without charging interest, banks operate in the same way.
4. Distribute Handout 1: Interested in Interest. Explain that students will be using math and graphing skills to understand how **interest rates** change behavior. Allow students time to complete the assignment.
5. Debrief students, replicating their graphs on the board to show the similarities and differences in the students' graphs. (*While there may be slight variations in the students' graphs, the law of supply and demand should mean that the supply of loanable funds slopes down and the demand for loanable funds slopes up.*) Use the following focus questions to gauge students' understanding:
 - a. As the **interest rate** increased, what happened to the number of people willing to borrow?
The number of people willing to borrow decreased.

¹ <http://lei.councilforeconed.org/glossary.php>



- b. As the **interest rate** increased, what happened to the number of people willing to lend?
The number of people willing to lend increased.
 - c. Overall, how do **interest rates** change behavior?
Interest rates change the willingness of consumers to borrow and banks to lend. As the interest rate goes up, fewer consumers are willing to borrow money because they have to pay more back in interest. Banks are willing to supply more funds because they get more money paid back in interest.
6. Remind students from the opening panels of the comic book that the citizens of Novus are trying to create a central bank. Remind students that the responsibilities of this bank are found on page 6 of the comic book. Explain that the **Federal Reserve System** uses **interest rates** as one of the ways it conducts **monetary policy**.
7. Assign students to read pages 9-11 of the comic book. Distribute [Handout 2: The Interest Rate Lever](#). Allow students time to read and answer the questions.
8. Debrief students about the impact of **interest rates**, focusing on the reason the **Federal Reserve System** changes **interest rates** to conduct **monetary policy**. Use the following focus questions to gauge students' understanding:
 - a. "Too little lending and spending"
Interest rates would go down and the amount of lending and borrowing would go up. This choice is made because there is too little lending and spending in the economy at the moment.
 - b. "Prices seem to be going up quickly"
Interest rates would go up and the amount of lending and borrowing would go down. This choice is made because there is a risk of inflation.
 - c. "Households aren't feeling confident"
Interest rates would go down and the amount of lending and borrowing would go up. This choice is made because households need to have the confidence and ability to spend again.
9. Conclude the lesson by asking students to complete [Handout 3: Monetary Policy Review](#). Students should be able to define **interest rates** and to explain how changes in the **interest rate** help the **Federal Reserve System** meet its objectives. Ask students to answer the question at the bottom of [Handout 3](#), linking what they have learned to the compelling question. *(Students should respond that*



when prices are stable and as many people as possible are employed, the economy is healthier and people are more likely to have trust in the money.)

Supporting Question 2: What role does bank supervision play in supporting a stable economy?

10. Begin this portion of the lesson by reviewing what students learned in Step 8. Review with students the compelling question: **Why do you trust the money in your pocket?** Remind students of how changes in **interest rates** by the **Federal Reserve System** help keep the economy stable. This keeps inflation in check and makes the value of the money in the students' pockets stable.
11. Tell students that there is much more to stable money than prices. Related to money, ask students where they go to get money. (*Answers will vary, such as "jobs" and "allowance from parents."* Guide students to the eventual realization that regardless of where they get their money, it will, at some point, end up in a bank.) Explain to students that banks play an important role in the public's trust in money, and that in order to answer the compelling question, students should understand the role of banks.
12. Explain to students that today they will be answering the supporting question: **What role does bank supervision play in supporting a stable economy?**
13. Distribute Handout 4: Bank Supervision. Begin by having students break down the supporting question into its components using the guiding questions:
 - a. What is a bank?
 - b. What is supervision?
 - c. What is a stable economy?
14. Debrief students, collecting answers to each question and putting several on the board to see how similar or different the answers are. Explain to students that they will be returning to these answers to evaluate their predictions.
15. Reference the t-chart in Handout 4. For the left column, ask students to list services provided by a bank. (*Students' answers will vary, but will likely include things such as making loans, keeping money safe, providing safe deposit boxes, etc.*)



16. Reference the right column in Handout 4. Ask students to think of ways that these services could go wrong. (*For example, next to "Banks hold customer accounts" in the left-hand column, a student may write "Banks may not have enough money onsite to handle all withdrawals."*)
17. Remind students of the supporting question: **What role does bank supervision play in supporting a stable economy?** Reference the list in the right column in Handout 4 and explain to students that there can always be problems with bank services and that bank supervision is one way to make sure these problems do not occur.
18. Distribute Handout 5: The Fed at the Bank. Explain that students will now learn about bank supervision. Assign students to read pages 12-15 of the comic book. Debrief students when all have had time to finish.
19. Remind students of Step 13 and their breakdown of the supporting question. Using the question at the bottom of Handout 4, tell students to reflect on the similarities and differences between their definitions and what they have learned.
20. Transition by directing students to focus on the panels involving stress tests on page 14 of the comic book. Ask students why tests are given. (*Students should respond that tests help determine whether someone has knowledge or information. Students may also use their knowledge of tests in school to talk about the different functions of tests, such as to evaluate performance or to improve learning.*) Explain that the **Federal Reserve System** also tests banks to see if they are prepared.
21. Ask students to re-read the panels on stress tests on pages 14-15 and to complete the questions and activity at the bottom of Handout 5. Use the following focus questions to gauge students' understanding:
 - a. Why does the **Federal Reserve System** conduct stress tests?
Stress tests are conducted to assess the riskiness of loans that banks have made.
 - b. How do stress tests contribute to the idea of financial stability?
Stress tests help show how banks would perform in a crisis-like situation. This way, banks know if they have enough capital to make it through a crisis and can make adjustments before bad things actually occur.



22. Conclude the activity by reminding students that today they were answering the question: **What role does bank supervision play in supporting a stable economy?** Ask students to answer the supporting question by completing the bottom of Handout 5. *(Students should respond that the goal of bank supervision is to make the banking system more safe and secure. This means that students can depend on their money being there, which creates consumer confidence and trust.)*

Supporting Question 3: What are financial services?

23. Review with students the importance of bank supervision they learned the previous day in Step 18. *(Students should respond that the Federal Reserve System supervises banks to create a stable economy.)* Remind students of the list of bank services they learned about yesterday in Step 15 and which they listed on Handout 4. If necessary, review the various roles and functions of a bank.
24. Review with students that the **Federal Reserve System** is the central bank of the United States and that like a “regular” bank, the **Federal Reserve System** provides **financial services**. Explain that today students will be answering the supporting question: **What are financial services?**
25. Distribute Handout 6: The Federal Reserve System as a Bank. Ask students to read pages 16-19 of the comic book. As they read, ask students to make a list of the different **financial services** provided by the **Federal Reserve System**. *(Students should note the following: distributing paper currency and coins; collecting checks; transferring bank funds; meeting cash demands in Federal Reserve Districts; issuing and shredding currency; storing gold at the Federal Reserve Bank of New York.)*
26. Remind students that they previously listed banking services on Handout 4. Debrief by asking students to compare the list of bank services provided by “regular” banks with the list generated in Step 25. *(While students’ answers may vary, they should recognize that many of the services are similar, but the customer is the key difference. Commercial banks perform financial services for individuals, while the Federal Reserve System performs similar services but for the banks themselves.)*
27. Explain to students that their actions are very important in the economy. Distribute Handout 7: The Federal Reserve System and You. Direct students to focus on the left column of the t-chart. Ask students to make a list of every economic activity they have engaged in over the past week. *(Answers will vary,*



but are likely to include things such as purchasing goods and services, withdrawing cash from an ATM, working, etc. Remind students of things they may forget, such as paying sales tax on their purchases or accumulating human capital by attending school.) Compile students' responses to generate a master list of classroom economic activity.

28. Ask students to use the list generated in Step 25 to categorize each economic action they engaged in with the financial service provided by the **Federal Reserve System**. (For example, if students had listed "withdrew money from an ATM," they would match that with "Federal Reserve System manages currency.")
29. Debrief the students when all have had time to finish. Students should be able to discuss the ways in which the **financial services** provided by the **Federal Reserve System** affect their daily lives. Ask students to reflect on the importance of **financial services** using the question at the bottom of Handout 7. (Students should respond that Federal Reserve System financial services help banks perform their functions, which provides economic stability and helps citizens trust the money in their pockets.)

Assessment

30. Remind students of the initial compelling question for the lesson: **Why do you trust the money in your pocket?**
31. Ask students to re-read pages 20 and 21 of the comic book, focusing on the trip back to Novus. Students should imagine that they were part of the original expedition to Earth and are now returning to Novus to put what they learned into action.
32. Students work in groups to create a central bank for the planet Novus. While banks may be similar or different, all should cover these topics:
 - a. Monitoring inflation and unemployment
 - b. Supervising banks
 - c. Providing financial services
33. Remind students that these are the supporting questions they answered while they read the comic book and that the concepts learned are guides to help them create their own central bank. The key for students is to understand how a central bank can help the citizens of Novus trust the money in their pockets.

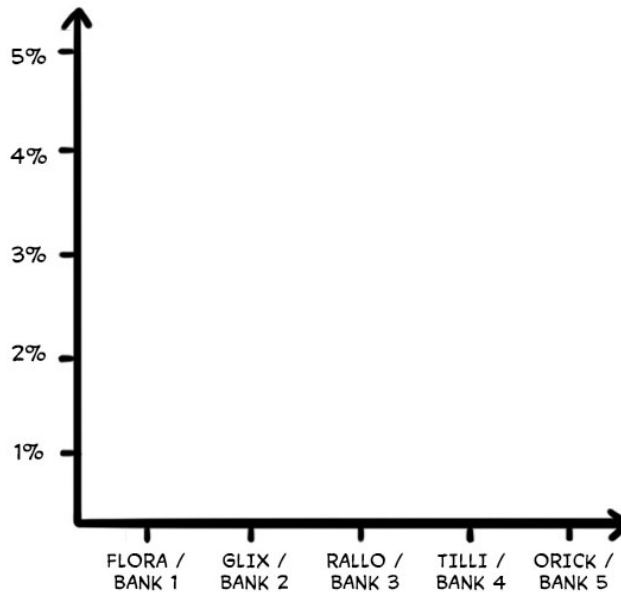


THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT 1

Interested in Interest

On the graph below, place a dot on the graph at the interest rate each borrower is willing to borrow at. Then, place a dot on the graph at the interest rate each lender is willing to lend at.

Interest rate:



FOCUS QUESTIONS

1. As the interest rate increased, what happened to the number of people willing to borrow?
2. As the interest rate increased, what happened to the number of people willing to lend?
3. Overall, how do interest rates change behavior?

BORROWERS

Flora: "I'm willing to borrow if interest is 5% or lower."

Glix: "I need a loan, but I won't borrow if interest is higher than 4%."

Rallo: "My limit is 3% interest. I'll borrow at that rate or lower."

President Tilli: "I won't pay more than 2% interest on any loan I take out."

Orick: "If the interest rate is 1%, I'll take out the loan I need."

LENDERS

Bank 1: "I'm willing to start lending money at an interest rate greater than 1%."

Bank 2: "I'll definitely loan money for 2% interest or higher."

Bank 3: "If the interest rate is 3% or more, I can make some loans."

Bank 4: "At a rate of 4% interest, I'll start loaning money."

Bank 5: "I'll only loan money for at least 5% interest."



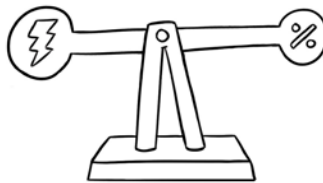
THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT **2**

The Interest Rate Lever

As you have seen, changes in the interest rate can change consumer behavior. Flora needs your help!

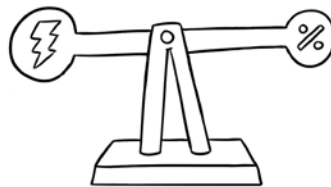
Using your knowledge of economics and pages 9-11 of the comic book, read each scenario below. Draw an up or down arrow on the correct side of the interest rate lever to indicate what should happen to interest rates and the amount of lending and borrowing.

Flora: "Oh no! There's too little lending and spending in the economy at the moment. I'm worried about a recession on Planet Novus. What should I do?"



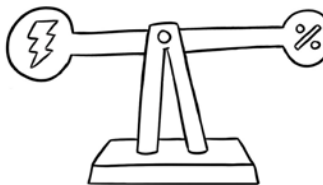
**EXPLANATION:
WHY DID YOU MAKE
THE CHOICE YOU DID?**

Flora: "Prices seem to be going up pretty quickly. I'm worried about the economy overheating and causing some inflation. What should I do?"



**EXPLANATION:
WHY DID YOU MAKE
THE CHOICE YOU DID?**

Flora: "All of the data seem to suggest that households aren't feeling confident about the economy and losing jobs. What should I do?"



**EXPLANATION:
WHY DID YOU MAKE
THE CHOICE YOU DID?**



THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT ③

Monetary Policy Review

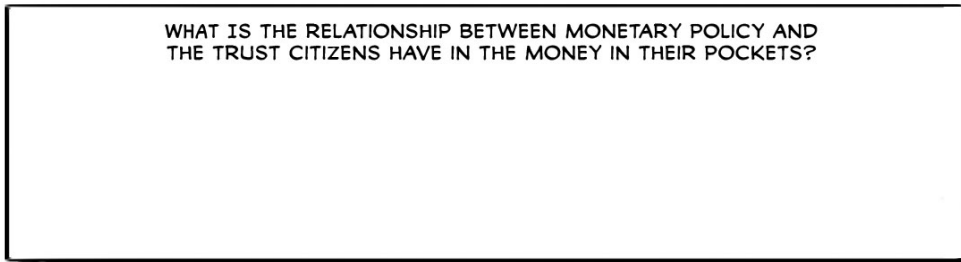
Flora is putting the finishing touches on her presentation about monetary policy, but needs your help putting everything together.

Using what you have learned about interest rates and monetary policy, in the space below draw a flow-chart that demonstrates the relationship between the following topics:

- Individuals in the economy
- Banks
- Central banks
- Interest rates



WHAT IS THE RELATIONSHIP BETWEEN MONETARY POLICY AND THE TRUST CITIZENS HAVE IN THE MONEY IN THEIR POCKETS?



THE STORY OF THE
 FEDERAL RESERVE SYSTEM
HANDOUT **4**

Bank Supervision

What is a bank? _____

What is supervision? _____

What does a "stable economy" mean? _____

FUNCTIONS AND SERVICES OF A BANK	POTENTIAL PROBLEMS

REFLECTION		
<p>HOW WAS YOUR DEFINITION OF A BANK SIMILAR TO WHAT BANKS ACTUALLY DO?</p>	<p>HOW WAS YOUR DEFINITION OF SUPERVISION SIMILAR TO THE DESCRIPTION OF SUPERVISION IN THE COMIC BOOK?</p>	<p>HOW WAS YOUR EXPLANATION OF A STABLE ECONOMY SIMILAR TO THE ONE DESCRIBED IN THE COMIC BOOK?</p>
<p>HOW WAS IT DIFFERENT?</p>	<p>HOW WAS IT DIFFERENT?</p>	<p>HOW WAS IT DIFFERENT?</p>
<p>WHY DID YOU MAKE THE PREDICTION YOU DID?</p>	<p>WHY DID YOU MAKE THE PREDICTION YOU DID?</p>	<p>WHY DID YOU MAKE THE PREDICTION YOU DID?</p>



THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT 5

The Fed at the Bank

Rallo is busy building his set for the performance about bank supervision. But he needs catchy slogans to convince people to come to his performance.

In the space below, using your knowledge from the comic book, list all of the various ways in which the Federal Reserve System supervises banks and the reasons. On the right-hand side, pick two of those reasons and create a catchy slogan that explains why the Federal Reserve System supervises the financial sector.

	<div style="border: 1px solid black; width: 80%; margin: 10px auto; padding: 5px;"></div> <div style="border: 1px solid black; width: 80%; margin: 10px auto; padding: 5px;"></div>
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STRESS TESTS

WHY DOES THE FEDERAL RESERVE CONDUCT STRESS TESTS?

HOW DO STRESS TESTS CONTRIBUTE TO THE IDEA OF FINANCIAL STABILITY?

IN THE SPACE BELOW, DRAW TWO BANKS. DRAW ONE BANK WITH TOO LITTLE CAPITAL (I.E., ONE THAT WOULD NOT PASS A STRESS TEST). DRAW ONE BANK WITH ENOUGH CAPITAL (I.E., ONE THAT WOULD PASS A STRESS TEST).

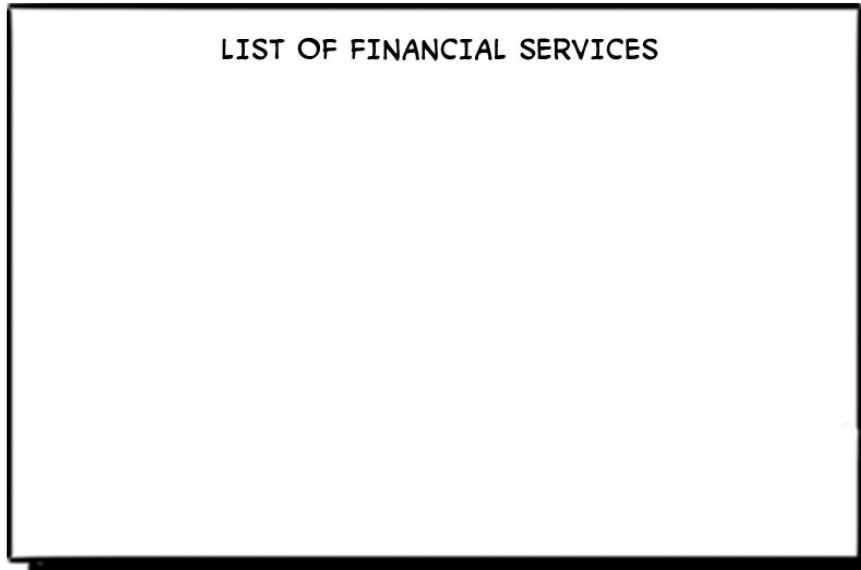
How does bank supervision ensure that you trust the money in your pocket? _____



THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT 6

The Federal Reserve System as a Bank

LIST OF FINANCIAL SERVICES



How are these financial services similar to and different from the ones performed by banks?

SIMILAR	DIFFERENT



THE STORY OF THE
FEDERAL RESERVE SYSTEM
HANDOUT 7

The Federal Reserve System and You

ECONOMIC ACTIVITIES YOU'VE BEEN INVOLVED IN DURING THE PAST WEEK	FINANCIAL SERVICE THAT HELPED YOU

WHAT IS THE IMPACT OF FINANCIAL SERVICES ON THE ECONOMY?

HOW DO FINANCIAL SERVICES HELP YOU TRUST THE MONEY IN YOUR POCKET?

