

# THE FLOW OF MONEY

## An Overview and Lesson Plan for Educators on Monetary Policy during COVID-19

### State and National Teaching 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.



FEDERAL RESERVE BANK of NEW YORK

1 of 34

## Grade Levels

9-12

## Time Required

100 minutes

## Compelling Question:

What happens when money is less available or “What happens when money dries up?”

## Supporting Questions:

Why is liquidity important?

How does the Federal Reserve System help provide liquidity?

What makes the COVID-19 crisis different from other financial crises?

## Objectives:

- Explain the circular flow model and liquidity
- Analyze how stopping the flow of money harms the economy
- Describe the impact of COVID-19 on liquidity
- Simulate the purchase of assets in the market
- Predict the economic impacts of COVID-19
- Compose a briefing for the Federal Reserve Board of Governors on the economic outlook

## Materials

- Teacher Resource 1: Circular Flow Diagram
- Teacher Resource 2: The Fed and Liquidity
- [Reading 1: What is the difference between a bank's liquidity and its capital?](#)
  - ([https://www.federalreserve.gov/faqs/cat\\_21427.htm](https://www.federalreserve.gov/faqs/cat_21427.htm))
- [Reading 2: New York Executive Order](#)
  - (<https://www.governor.ny.gov/news/governor-cuomo-signs-new-york-state-pause-executive-order>)
- [Reading 3: New Jersey Executive Order](#)
  - (<https://covid19.nj.gov/faqs/nj-information/general-public/governor-murphy-announces-statewide-stay-at-home-order-closure-of-all-non-essential-retail-businesses#direct-link>)
- [Reading 4: Connecticut Executive Order](#)
  - (<https://portal.ct.gov/Office-of-the-Governor/News/Press-Releases/2020/03-2020/Governor-Lamont-Releases-Guidance-to-Businesses-on-Order-Asking-Connecticut-to-Stay-Safe-Stay-Home>)
- [Reading 5: Statement on the Use of Capital and Liquidity Buffers](#)
  - (<https://www.federalreserve.gov/newsevents/pressreleases/files/>)



bcreg20200317a1.pdf)

- [Reading 6: Expected U.S. Macroeconomic Performance during the Pandemic Adjustment Period \(St. Louis Fed\)](#)
  - (<https://www.stlouisfed.org/on-the-economy/2020/march/bullard-expected-us-macroeconomic-performance-pandemic-adjustment-period>)
- [Reading 7: Businesses in the Tri-State Region Struggling to Weather the Coronavirus Outbreak \(New York Fed\)](#)
  - (<https://libertystreeteconomics.newyorkfed.org/2020/03/businesses-in-the-tri-state-region-struggling-to-weather-the-coronavirus-outbreak.html>)
- [Reading 8: Empire State Manufacturing Survey March 2020 \(New York Fed\)](#)
  - ([https://www.newyorkfed.org/medialibrary/media/survey/empire/empire-2020/esms\\_2020\\_3\\_survey.pdf?la=en](https://www.newyorkfed.org/medialibrary/media/survey/empire/empire-2020/esms_2020_3_survey.pdf?la=en))
- [Reading 9: San Francisco Fed: Fed Views \(April 2, 2020\)](#)
  - (<https://www.frbsf.org/economic-research/publications/fedviews/2020/april/april-6-2020/>)
- Handout 1: What happens when money dries up?
- Handout 2: Liquidity and Capital
- Handout 3: Round and Round We Go
- Handout 4: Liquidity
- Handout 5: Market Interactions
- Handout 6: Fed Data
- Handout 7: Fed Briefing

## Remote or Virtual Learning Appendix

In the event a traditional classroom environment is not available, there are resources provided in an appendix to modify the activities and readings.



## Procedures

### Supporting Question 1: Why is liquidity important?

1. Before the lesson, take Teacher Resource 1: Circular Flow Diagram, and cut out each of the labels and squares. These will function as badges and as cash for the activity that begins in Step 10.
2. Begin the lesson by holding up a glass of water. Ask the students to list several characteristics of water. (*Expected student response: it is wet, it sloshes, it can be cold or hot, necessary to live, etc.*) Jot down a few answers on the board. Pick up a ruler and tilt it down to the floor at a slight angle. Ask students to make a prediction about what will happen if water is poured down the ruler. (*Expected student response: it will flow down to the floor.*)
3. Point out to students that moving easily and flowing is a prime characteristic of a liquid. Further, point out to students that water is vital to life. Without water, life cannot function properly.
4. Pivoting to the lesson, explain that today students will begin working on a unit to answer the compelling question: **What happens when money dries up?** Reinforce to students the water analogy they just discussed and ask them to think about what impact water drying up may have on life.
5. Pass out Handout 1: What happens when money dries up? Ask students to make a prediction in one sentence about what money “drying up” means. Explain to students that this is just a prediction, and they should not worry whether it is right or wrong. They should instead focus on using their current knowledge to predict the future.
6. Explain to students that they will begin investigating the compelling question by answering the supporting question: **Why is liquidity important?** Ask students to state a time they have heard the term “liquidity” in the past. (*Expected student response: a few minutes ago when they discussed water.*)
7. Pass out Handout 2: Liquidity and Capital, as well as Reading 1: What is the difference between a bank's liquidity and its capital? Define “assets” and “liabilities” for students to write at the top of Handout 2 to help facilitate their understanding. (*An asset is something of monetary value owned by an individual or organization, while a liability is something an organization or individual must pay.*) Ask students to read Reading 1 and answer the questions on Handout 2.



8. Debrief, making sure that students understand the difference between liquidity and capital. Note that these topics will be extremely important moving forward.
  1. What is liquidity? (*Liquidity describes assets that can be used quickly to pay for debts or other financial obligations.*)
  2. What is capital? (*Capital is the difference between the assets and financial obligations of an individual household or business. The gap between the two gives you a sense of how much “wiggle room” a bank or household has to handle an unexpected bill or loss.*)
  3. List examples of household assets that are liquid (*Checking accounts, bank accounts, cash, certificates of deposit*)
  4. List examples of household assets that are illiquid or non-liquid (*Houses, art, cars, a small business*)
  5. Why is liquidity so important? (*Liquid assets are those that allow you to pay bills quickly, both in normal circumstances and in the event that something unexpected happens.*)
9. Explain to students that liquidity is important for financial markets and the economy to function. To learn how, tell them they will be conducting a simulation.
10. Pass out Handout 3: Round and Round We Go. Ask one student to come up to the front of the class to represent “Households.” Hand them a label of “Household” and ask them to attach it to themselves with a paper clip or tape. Also, hand them 10 \$1 cards and five “Employee Resource” cards.
11. Ask one student to represent businesses. Hand them a sign labeled “Business” and ask them to attach it to themselves with a paper clip or tape. Also hand them five “Product Cards” and 5 \$1 cards. Have the “Household” and “Business” student stand parallel to each other, but an appropriate distance apart.
12. Ask the class how businesses (sellers) and households (buyers) typically interact. (*Expected student response: businesses sell things to households or individuals, who buy them with money*).
13. Ask the household and the business to walk toward each other and meet halfway to complete the transaction, buying one product for two dollars (i.e. exchanging two \$1 bills for one Product Card). When they are making the transaction, tell the students to freeze.
14. Explain that these transactions happen in what is called a market. A market is a place where buyers and sellers meet. Sometimes it is a literal place, such as a brick and mortar store, but sometimes it is more of an abstract place that consists



of institutions, social norms, or procedures. This transaction occurred in a **product market** because products were being bought and sold. Ask another student to come to the front. Hand them the sign that says "Product Market" and ask them to attach it to their person with a paper clip or tape. Ask the product market student to stand where the household and business students have met halfway. Ask the household and business students to return their starting places and ask the product market student to remain and stand between but slightly back from the household and business students, forming a half circle.

15. Ask the business to look at their hand and tell the class what they are holding. *(Expected student response: four products and \$7.)* Ask the household to look at their hand and tell the class what they are holding. *(Expected student response: \$8 and one product.)* Ask the household and business to explain what is different. *(Expected student response: originally they only had their own items, but the transaction has resulted in them getting something that they want. In this case, the business has more money, and the household has a product, which is a good or service.)*
16. Next, ask the class how the business was able to make its products. *(Expected student response: businesses buy the resources or materials they need and hire the people or employees they need to make the product or provide the service.)* Explain that today's simulation will focus only on the employee aspect. Tell the business student to walk over and hire an employee from the household student for \$1 (i.e. the business will hand the household one \$1 bill, and the household will hand the business one Employee Resource Card, which will be our representation of providing services). When they are making the transaction, tell the students to freeze.
17. Explain that these transactions once again happen in a market. This market, however, is called a **resource market** because firms are buying labor or work, which is a resource, from the households. Ask one student to come to the front of the class and give them the sign that says "Resource Market." Again, ask them to attach the sign with tape or a paper clip. Ask the resource market student with the sign to stand downstage, opposite the student product markets sign. Ask the Business and Household students to return to their starting positions, creating a circle with all four students. Next, tell the business that they can use their Employee Resource Card to make another Product (i.e. the student trades in one Employee Resource Card to the teacher, and in return the teacher gives them one Product Card.)



18. Ask the students to simulate the flow again. Have the household go to the product market and meet the business to buy a product and the price is \$2. They will pay \$2 cash to the business in exchange for a product. Then, the business should go to the resource market and pay the household \$1 in cash as salary, while the business gets a resource card. Tell the business they can trade this resource card in for a product card.
19. If necessary, you can conduct the simulation one or two more times to consolidate student knowledge. It is important that students are seeing the flow of goods and services and money from each location to the other, so remember to make sure your business and households are physically moving from each location to the other and then back again into the circle.
20. Tell students that this is called a circular flow diagram. Ask them to infer why the model is called circular flow. *(Expected student response: the model moves in a circle, as households and businesses meet in different markets and trade money for products and resources. It is a flow of goods and money. Point out that the same money is changing hands and circulating between businesses and households.)*
21. Have students return the cards so they are holding the amount they had before. To review, ask students for the definition of liquidity. *(Expected student response: describes assets that can be used quickly to pay for debts or other financial obligations.)*
22. Now, tell students that there is a liquidity crunch. Households and businesses have sudden bills to pay that have crept up all at once. This causes a lack of liquidity. Tell students that you as the teacher represent the liquidity crunch. Attach the sign from Teacher Resource 1 that says “Liquidity Crunch” to yourself with a paper clip or tape.
23. Take \$9 from the household, and take \$3 from the business, telling them that this money has to be paid for an increase in the expenses they accrued over the past month. Ask the household how many dollars they have left. *(Expected student response: \$1.)* Ask the business how many dollars they have left. *(Expected student response: \$2)* Ask them to describe the market in terms of liquidity. *(Expected student response: illiquid, non-liquid, it is less liquid, etc.)*



24. Now, tell students to repeat the simulation. The household should go and buy a product from the business at the product market. *(Expected student response: they cannot)* Ask students why. *(Expected student response: the item costs \$2 but, due to liquidity issues, they cannot afford the item.)* Ask students what will happen to the business if it cannot sell its items. *(Expected student response: they will lose money.)*
25. To simulate this, the teacher, playing the role of the liquidity crunch, should tell the business that a rent payment is coming due. Take \$2 from the business in rent. Ask the student what has happened. *(Expected student response: the business has \$0 and they will have to shut down.)*
26. Have all students return to their seats and answer questions 1-5 in Handout 3.  
Debrief about what students learned.
  1. Illustrate a circular flow diagram (example included in Teacher Resource 1).
  2. In “good times” describe how money flowed from one place to the next. *(Expected student response: households buy goods in the product market, giving businesses money. Businesses in turn spend some of that money to hire the members of the households for jobs, giving them a salary, which they can then use to buy products and completing the circular flow of money.)*
  3. What happened when liquidity grew more restricted? *(Expected student response: households and businesses found it harder to buy products and resources, respectively. Households had to decrease spending and businesses had to reduce production or close.)*
  4. How might this be bad for the economy? *(Expected student response: because of the circular flow model, a problem in one part affects all the other parts. If businesses shut down, then they can't hire workers, which means that members of households are unemployed and spend less money at businesses, which creates a vicious cycle.)*
  5. How might the flow of money, or the lack of flowing money, be compared to the liquid you saw at the beginning of class? *(Expected student response: the liquid flowed and moved based on the amount of space and a lack of barriers. In a similar way, if there are few barriers, then money will flow between households and businesses. But as soon as the amount of “water” or money begins to decrease, there is less of it to flow from one group to another, harming the economy.)*





27. Conclude the lesson by directing students to answer the supporting question in the box at the bottom of [Handout 3](#). (Expected student response: Liquidity is important because money flowing through the economy moves from households to businesses and back to households in a continuing cycle. By slowing or stopping this flow, it makes it difficult for businesses to pay bills and hire workers, which means households have less income, which means they buy fewer things.)

**Supporting Question 2: How does the Federal Reserve System help provide liquidity?**

28. Before the lesson, take [Teacher Resource 2: The Fed and Liquidity](#), and cut out each of the signs and cards. These will be used in the activity beginning in Step 37.
29. Ask students to recall their knowledge of liquidity. (Expected student response: liquidity describes assets that can be used quickly to pay for debts or other financial obligations and enable the ability of money to “flow” from one household or business to the next.) Ask why liquidity is so important. (Expected student response: as the simulation showed, if liquidity dries up, the product and resource markets cannot interact normally and economic activity may come to a halt.)
30. Explain to students that today they will examine why liquidity dries up, and how the Federal Reserve System can help to provide liquidity. Tell students to focus on today’s key question: **How does the Federal Reserve System help provide liquidity?**
31. Tell students that the COVID-19 pandemic is a tremendous public health crisis with extraordinary economic impact. Explain that in this lesson we will be focusing on the latter issue. Begin by handing out copies of [Reading 2: New York Executive Order](#), [Reading 3: New Jersey Executive Order](#), and [Reading 4: Connecticut Executive Order](#). Ask them to read the executive orders, taking note of what each state is requiring citizens to do.
32. Debrief with students, writing quick notes on the board summarizing what the executive orders require. (Expected student response: non-essential businesses must close, people must work from home whenever possible, people must conduct social distancing and be apart, etc.)



33. Ask the students who participated in the circular flow simulation from the previous lesson to come to the front and get back into their positions. Have them quickly demonstrate how the circular flow works in normal or “good times.” (You do not need to re-print the cards if you do not want to; using pens and pencils as representative of products and money is a simple enough way to conduct the review.)
34. Now, ask the students to conduct the simulation under COVID-19 conditions. Ask the Household student what they are supposed to do to promote public health, according to the executive orders. *(Expected student response: shelter in place.)* Ask the Business student what they are supposed to do according to the executive orders. *(Expected student response: most will close, if they are not essential.)* Ask students to simulate the flow of money and goods and services through the economy. *(Expected student response: at first there may be confusion, but eventually students should realize that because households can't move and because businesses can't be open, the circular flow is not turning at all. Households and businesses are not allowed to meet each other in either market.)*
35. Have all students return to their seats. Pass out Handout 4: Liquidity and Reading 5: Statement on the Use of Capital and Liquidity Buffers. Explain that this statement was released by the Federal Reserve shortly after the World Health Organization declared COVID-19 to be a pandemic. Ask students to read the statement and answer the questions.
36. Debrief, guiding students toward the idea that the Fed statement is stressing the importance of helping to provide liquidity to continue to serve households and businesses for reasons that they have already learned.
  1. Think back to the liquidity crunch. Predict what businesses or households might do if they are short of money to pay their bills. *(Expected student response: borrow money from a bank.)*
  2. What is the Fed asking banks to do? *(Expected student response: use some of the money in their reserves to lend to households and businesses and help provide liquidity.)*
  3. What does the statement suggest about the state of liquidity prior to the pandemic? *(Expected student response: since the 2007 – 2008 financial crisis, there has been a buildup of liquidity.)*
  4. What problem is the Fed trying to solve? *(Expected student response: banks and other financial institutions may be hesitant to use their liquidity and lend, due to uncertainty.)*



5. Why does the Fed need financial institutions to lend? *(Expected student response: financial institutions lend to households and businesses and if that money dries up, then the circular flow dries up.)*
  
37. Pass out Handout 5: Market Interactions. Explain to students that the Federal Reserve uses monetary policy to increase or decrease the availability of money, affecting liquidity. Tell students they will be simulating this process.
  
38. Ask six students to come to the front. Using Teacher Resource 2: The Fed and Liquidity, give five students a sign that says "Financial Institution." They can attach these cards to themselves with tape or a paper clip. Also, give each financial institution five cards that say "Treasury Bonds," five cards that say "Bundles of State and Local Bonds," and five cards that say "Bundles of Medium and Large Corporate Bonds." To the other student, give them a sign that says "Federal Reserve." Give that student 50 cards that say "Money."
  
39. Ask students to look at Handout 5. At the top of the page, define the term "bond" for students who may be unfamiliar. *(A bond is a certificate issued by an institution that serves as a promise to repay borrowed money at a particular interest rate over a particular time period.)* Next, ask students to make a prediction to Question 1. *(Expected student response: in a recession, the Fed needs to boost liquidity and spending. It would do that by increasing the availability of money in the economy.)*
  
40. Show the students how this is done. Ask the Federal Reserve or "Fed" to walk over to the financial institutions. Ask students in the class, "If you need to borrow to buy a car or a house, would it be easier to pay in cash or in bonds?" *(Expected student response: cash.)* "Why?" *(Expected student response: cash is liquid, and can more easily be used to pay back loans.)* Ask students, "So what do financial institutions need to have in order to lend to households and businesses?" *(Expected student response: cash.)*
  
41. Explain that traditionally the Federal Reserve purchases Treasury bonds in the financial market, through financial institutions. Ask the Federal Reserve student to purchase two or three Treasury bonds from a bank with cash. Ask the students to answer Question 2. *(Expected student response: the amount of money that the bank can lend has increased.)* Ask students to predict what having better access to loans and money will do to spending by households and businesses in the economy. *(Expected response: it will increase.)* Ask them to reflect on their prediction in Question 1, emphasizing that being right or wrong is less important than the process of how they learned and how predictions drive inquiry.



42. Repeat the process a few more times, with the Federal Reserve buying Treasury bonds from each bank. Show students that the availability of money is increasing, providing more liquidity and generating more spending. Have the financial institutions hold on to their portfolio of cash and bonds.
43. Now ask students to recall the circular flow model they demonstrated earlier. What is the issue with the economy under COVID-19? (*Expected student response: businesses are forced to close and members of households cannot go out and spend.*) Ask students to answer Question 3 and make a prediction about what the Federal Reserve's actions should be during the COVID-19 pandemic.
44. Explain that the Federal Reserve cannot typically get money directly into the hands of households. However, as students saw, the Fed has ways of increasing liquidity so that more money is available for borrowing and spending. In the middle of Handout 5, ask students to make a list of all of the types of people or groups impacted by the COVID-19 outbreak. (*Expected student response: answers may vary, but will likely include people, households, small businesses, airlines, hospitals, state and local governments, etc.*) Ask several students to share, making a list of different constituencies on the board. Focus students' attention on financial institutions, explaining that the Fed *typically* has the most direct ability to provide liquidity to these types of institutions. However, it can help other groups in the economy, such as local and state governments, and medium and large businesses, by providing liquidity to banks and financial institutions that make funds available for loans, and buy and sell bonds that help these businesses and governments have the cash (liquidity) they need to operate (Note: if the students are familiar with fiscal policy (taxing and spending), it may be useful here to briefly explain that some other constituencies such as households and small businesses are better served with fiscal policy programs.)
45. At the bottom of Handout 5, ask students to fill in the two sides of the t-chart with "Local/State Governments" on the left and "Medium and Large Businesses" on the right.
46. Ask students to make a prediction for each: What is the liquidity situation of each type of institution during the COVID-19 outbreak?



47. Focus students on the side that says “Local/State Governments.” Ask students to answer Question 4. *(Expected student response: governments will likely find it harder to borrow money, because individuals are not going to want to buy their bonds if they are worried about their own money, governments may have to delay collecting taxes or people may have fewer funds to pay taxes.)* Ask them to answer Question 5. *(Expected student response: without the ability to raise money and sell bonds, local and state governments will have to cut back on resources and offer fewer programs.)*
48. Explain that in response to the COVID-19 pandemic, the Fed has developed new tools to help increase the liquidity of financial institutions. Ask the six students who came up previously to return.
49. Remind students that liquidity has dried up throughout the economy. Normally, the Federal Reserve just purchases Treasury bonds, but decided that it needed more options to address the impact of COVID-19. Now, the Federal Reserve will increase liquidity by purchasing state and local government bonds from the financial institutions. The student playing the role of the Fed should again go to different financial institutions and buy bundles of municipal bonds with cash.
50. Ask students how this is different from the monetary policy they saw previously *(Expected student response: in this case the Fed is purchasing different types of bonds on the market, not just Treasury bonds)*. Ask students what has happened to the availability of money *(Expected student response: it has increased.)* Ask students what this means for liquidity. *(Expected student response: it has increased.)* Ask students to predict what this means for the ability of governments to finance their operations. *(Expected student response: if you know that the Fed can provide liquidity in the bond market, you are more likely to participate in this bond market, because you know you will be more likely to have a buyer for the bonds you purchase.)* Ask students why the ability for local/state governments to raise money through a stable government bond market is important for the economy, especially during COVID-19. *(Expected student response: state and local governments may be able to collect less in taxes, but will need to support the households and businesses that are struggling, and fund the public health response. Raising money with bonds makes it more likely that they can provide services.)* Ask students who is more likely to get a loan from a financial institution if there is more liquidity. *(Expected student response: households and businesses.)*



51. Next, focus students on the side that says “Medium and Large Businesses.” Ask students to answer Question 6. *(Expected student response: medium and large businesses/corporations will likely find it harder to borrow money, because individuals are not going to want to buy their bonds if they are worried about their own finances.)* Ask them to answer Question 7. *(Expected student response: without the ability to raise money and sell bonds, medium and large businesses/corporations will slow down production, lay off workers, and could possibly go bankrupt.)*
52. Explain that the Fed has developed tools to help increase liquidity. Ask the six students who came up previously to return.
53. Remind students that liquidity has dried up throughout the economy. Ask the Federal Reserve student to purchase medium and large corporate bonds from the banks. Once again, the student playing the role of the Fed purchases bundles of corporate bonds for money that goes to the financial institution.
54. Ask students what has happened to the availability of money. *(Expected student response: it has increased.)* Ask students what this means for liquidity. *(Expected student response: it has increased.)* Ask students to predict what this means for the ability of corporations to finance. *(Expected student response: if you know that the Fed can provide liquidity in the corporate bond market, you are more likely to buy these bonds knowing that they are somewhat less risky.)* Ask students why the ability for companies to raise money through a stable corporate bond market is important for the economy, especially during COVID-19. *(Expected student response: businesses/corporations hire large numbers of people and produce crucial products and services, so a weak corporate sector leads to more unemployed workers and a damaged economy.)* Ask students who is more likely to get a loan from a financial institution if there is more liquidity. *(Expected student response: households and businesses.)*
55. Ask students to take what they have learned and answer Questions 8-10 on the back of [Handout 5](#). Debrief, making sure to emphasize the answer to the Supporting Question.
  8. What is the link between liquidity in the market and the circular flow model? *(Expected student response: a drying up of liquidity in the market means that there is less money available to be spent or borrowed. The circular flow model depends on this flow of money for individuals and households to get paid and for businesses to borrow. Without liquidity, the circular flow grinds to a halt.)*
  9. How does COVID-19 impact liquidity? *(Expected student response: Households and businesses are unable to operate normally, meaning that*



*the typical circular flow of economic activity has ceased. Because of this, there is less borrowing and spending, and more businesses could go bankrupt. This could lead to households losing or having lower salaries, and further lack of liquidity, deepening the spiral.)*

10. **How does the Federal Reserve System help provide liquidity?** (Expected student response: The Federal Reserve buys and sells bonds on the market, providing financial institutions with cash they can use to lend to households and businesses. This helps provide the liquidity the circular flow needs to start up again and keep running.)

**Supporting Question 3: What makes the COVID-19 crisis different from other financial crises?**

56. Begin the lesson by reviewing with students how the Federal Reserve helps to provide liquidity. (Expected student response: the Federal Reserve buys and sells various securities in the open market to provide liquidity.)
57. Remind students that the Federal Reserve is taking these actions to help the economy, and that some of these new tools are different than tools that have been used in the past. Explain that today's supporting question will be, "**What makes the COVID-19 crisis different from other financial crises?**"
58. Divide students into groups of 3 - 4 based on your class size. Explain that each group represents a team of research economists. The ultimate goal of this exercise is to advise the Federal Reserve Board of Governors on the economic outlook. Distribute [Handout 6: Fed Data](#). Each team should also get the following readings to comprise their "Briefing Book":
- [Reading 6: Expected U.S. Macroeconomic Performance during the Pandemic Adjustment Period](#)
  - [Reading 7: Businesses in the Tri-State Region Struggling to Weather the Coronavirus Outbreak](#)
  - [Reading 8: Empire State Manufacturing Survey March 2020](#)
  - [Reading 9: San Francisco Fed: Fed Views \(April 2, 2020\)](#)
59. Before students work, tell them to take a moment and look at the two questions they are analyzing for each reading to help them know what they should look for while they read.
60. Allow students time to read through the documents and answer the questions, circulating around the room to assist with any questions. When all groups are finished, ask a different group to share their answer to each of the questions to give everyone in the room an opportunity to hear diverse opinions about each question.



61. To assess student knowledge, distribute Handout 7: Fed Briefing. In each group, students complete the handout to make a monetary policy recommendation, using the data and arguments they find most persuasive.

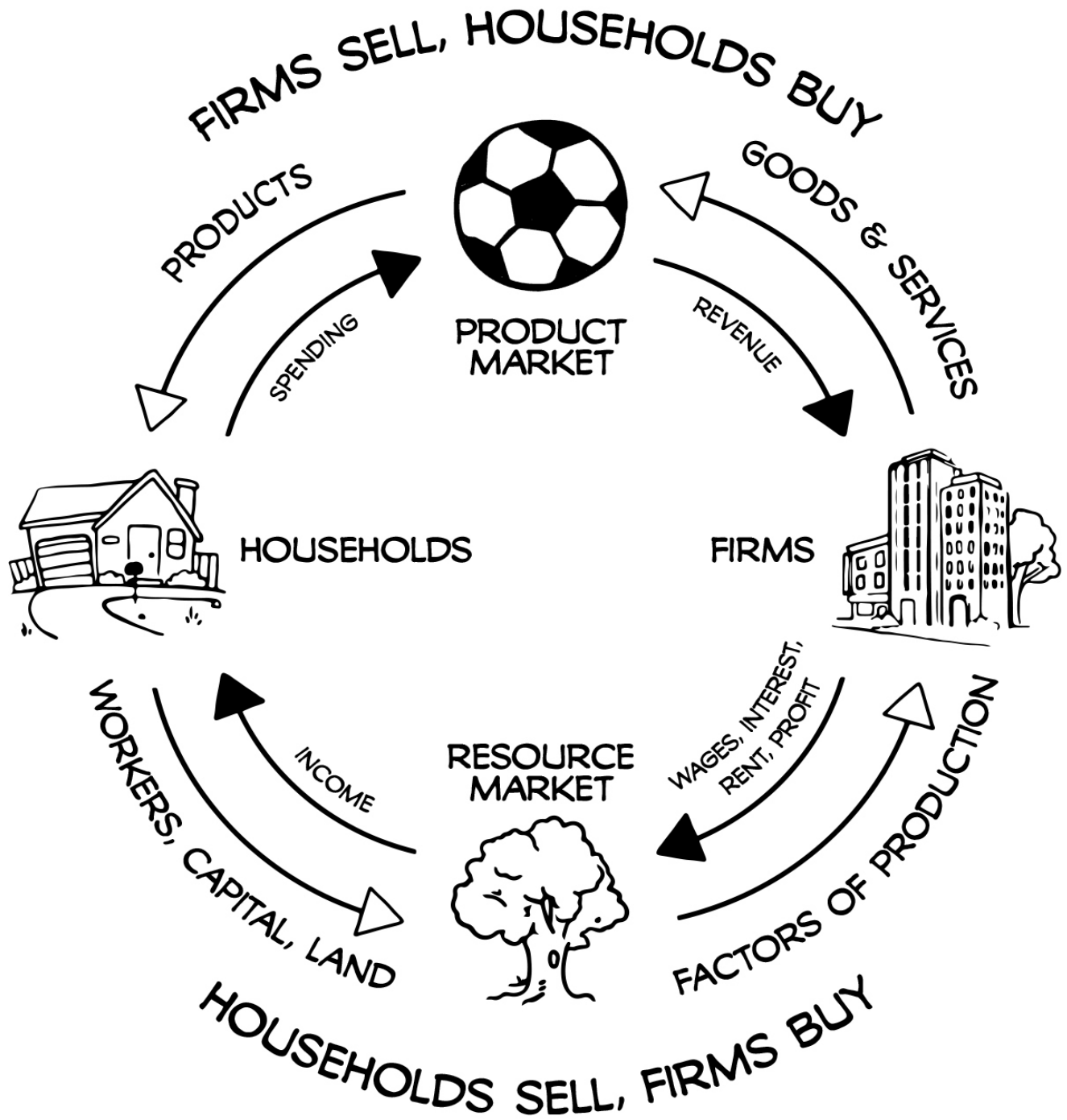
### **Assessment**

62. Ask students to take out Handout 1. Ask students to answer the Compelling Question at the bottom of the page, using answers from each of the three supporting questions as the "pillars" for their answer.
63. At the top of the page, students made a prediction before the unit began. Ask students, in the space at the bottom of the page, to compare their prediction from before the unit to their knowledge after the unit. Have students describe why they made their prediction, what was correct, what was incorrect, and how predictions demonstrate learning.





Teacher Resource 1



**Teacher Resource 1 (cont'd)**

\$1	\$1	\$1
\$1	\$1	\$1
\$1	\$1	\$1
\$1	\$1	\$1
\$1	\$1	\$1



Teacher Resource 1 (cont'd)

<b>PRODUCT</b>	<b>PRODUCT</b>	<b>EMPLOYEE RESOURCE</b>
<b>PRODUCT</b>	<b>PRODUCT</b>	<b>EMPLOYEE RESOURCE</b>
<b>PRODUCT</b>	<b>PRODUCT</b>	<b>EMPLOYEE RESOURCE</b>
<b>PRODUCT</b>	<b>EMPLOYEE RESOURCE</b>	<b>EMPLOYEE RESOURCE</b>
<b>PRODUCT</b>	<b>EMPLOYEE RESOURCE</b>	<b>EMPLOYEE RESOURCE</b>



Teacher Resource 1 (cont'd)

**HOUSEHOLD**



**BUSINESS**



**RESOURCE  
MARKET**



**PRODUCT  
MARKET**



**LIQUIDITY  
CRUNCH**



**Teacher Resource 2: The Fed and Liquidity**



**FINANCIAL  
INSTITUTION**



**FINANCIAL  
INSTITUTION**



**FINANCIAL  
INSTITUTION**

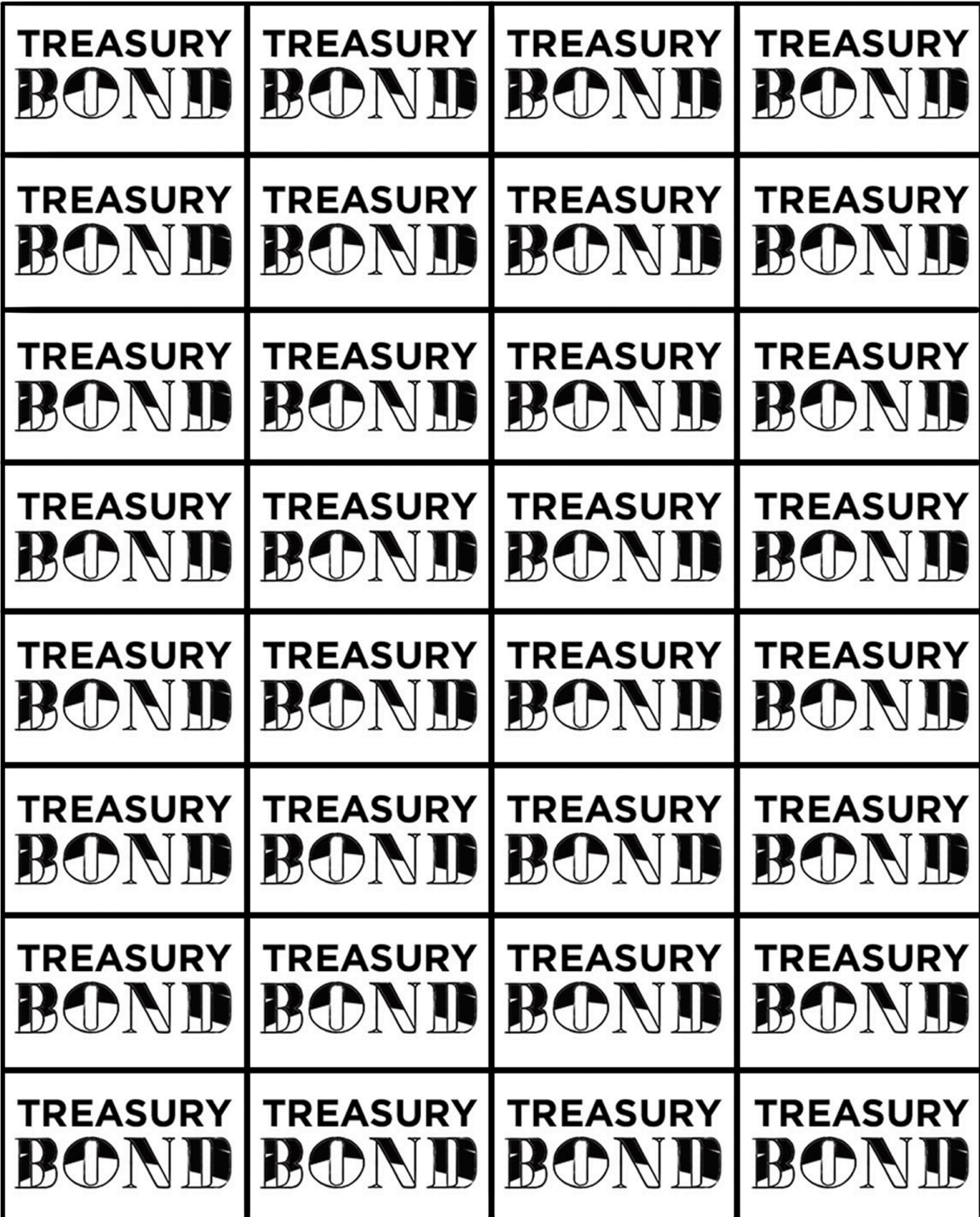


**FINANCIAL  
INSTITUTION**

**FEDERAL RESERVE**



Teacher Resource 2 (cont'd)



Teacher Resource 2 (cont'd)

<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>
<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>	<b>BUNDLES OF STATE AND LOCAL GOVERNMENT BONDS</b>



Teacher Resource 2 (cont'd)

<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>
<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>	<b>BUNDLES OF MEDIUM AND LARGE CORPORATE BONDS</b>





Teacher Resource 2 (cont'd)

<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>
<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>	<b>MONEY</b>



## **Handout 1: What happens when the money dries up?**

The compelling question for this unit is: **What happens when the money dries up?**

In the box below, make a prediction for this compelling question. You'll come back to this later, and don't worry, it's only a prediction. Base it on your current knowledge. When you come back to this at the end of the unit, you'll be amazed at how much you have learned.

In one sentence: **What happens when money dries up?**

Reflect on your prediction above. What knowledge did you not have when you made your prediction that you do now? How does this show what you have learned?

---

Compelling Question: **What happens when money dries up?**

Supporting Question 1:  
**Why is liquidity important?**

Supporting Question 2:  
**How does the Federal Reserve System help provide liquidity?**

Supporting Question 3:  
**What makes the COVID-19 crisis different?**



## Handout 2: Liquidity and Capital



1. What is liquidity?
2. What is capital?
3. List examples of household assets that are liquid.
4. List examples of household assets that are non-liquid.
5. Why is liquidity so important?



## Handout 3: Round and Round We Go

1. Illustrate a circular flow diagram.
2. Describe how money flowed from one place to the next in “good times.”
3. What happened when liquidity was more restricted?
4. How might this be bad for the economy?
5. How might the flow of money, or the lack of flowing money, be compared to the liquid you saw at the beginning of class?

Supporting Question: **Why is liquidity important?**



## **Handout 4: Liquidity**

1. Think back to the liquidity crunch. Predict what businesses or households might do if they are short of money to pay their bills.
2. What is the Fed asking banks to do?
3. What does the statement suggest about the state of liquidity prior to the pandemic?
4. What problem is the Fed trying to solve?
5. Why does the Fed need financial institutions to lend?



## Handout 5: Market Interactions

**BOND:**

1. Prediction: In a crisis such as during the COVID-19 pandemic, what needs to happen to liquidity? What is the best way to do that?
2. What happened when the Federal Reserve purchased securities from the open market?
3. What do you think is the best course of action for the Federal Reserve to take during the COVID-19 pandemic?

---

List of groups/institutions affected by the COVID-19 pandemic:

---

---

4. Why is a liquidity crunch a problem for this type of institution?

5. What could happen if this type of institution cannot access the liquidity it needs?

---

6. Why is a liquidity crunch a problem for this type of institution?

7. What could happen if this type of institution cannot access the liquidity it needs?



**Handout 5 (cont'd)**

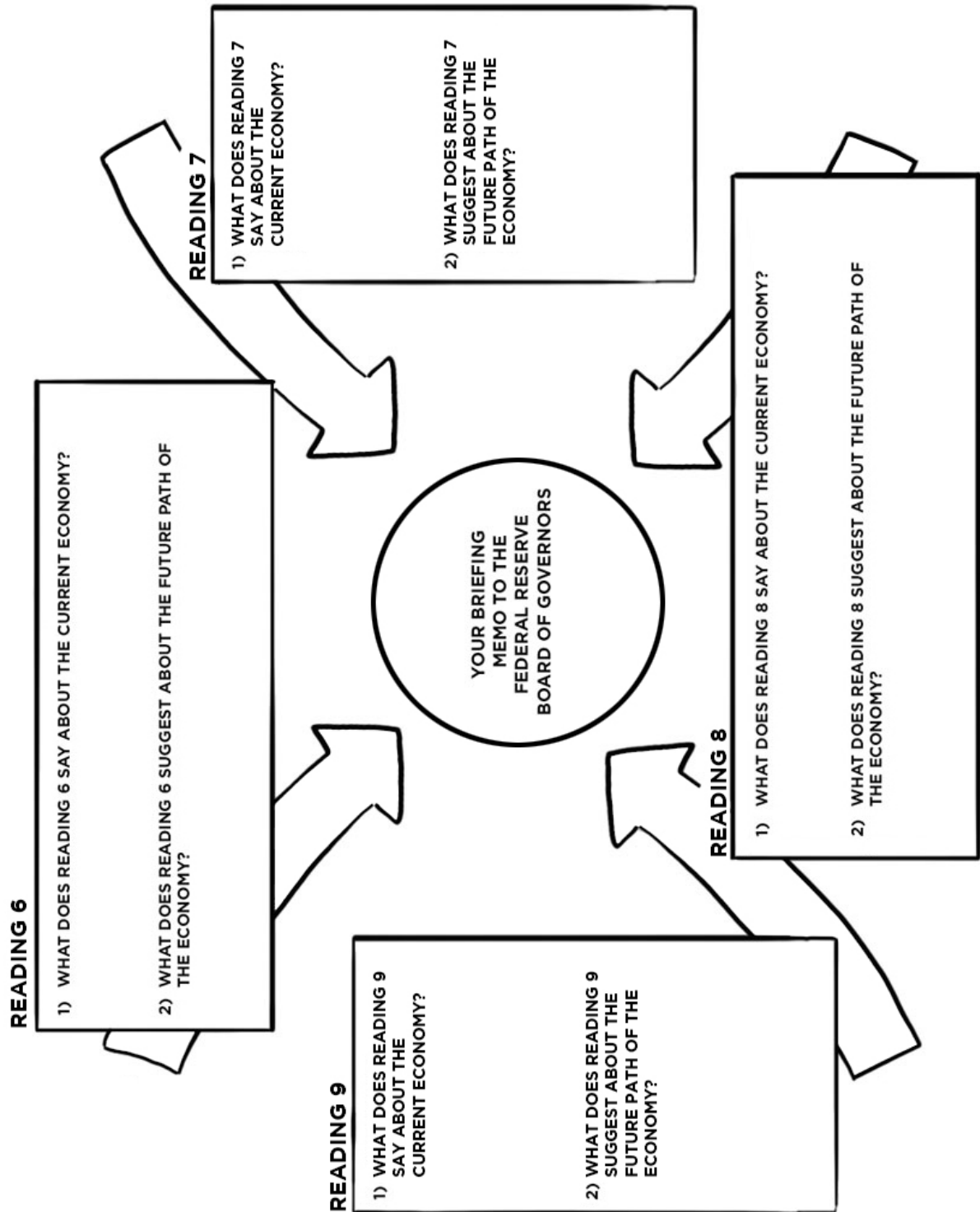
8. What is the link between liquidity in the market and the circular flow model?

9. How has COVID-19 impacted liquidity?

Supporting Question: **How does the Federal Reserve System help provide liquidity?**



## Handout 6: Fed Data





## **Handout 7: Fed Briefing**

**To: Federal Reserve Board of Governors**

**Re: Economic Consequences of COVID-19**

To the Board of Governors:

The unprecedented impact of COVID-19 has required quick policy action. To provide liquidity in the market, we conducted

---

As you are aware, the purpose of this exercise was to “restart” the \_\_\_\_\_ and encourage households and businesses to interact again.

A summary of the economic data from four different sources suggests two key points.

- Point 1: The current economy is best described as

\_\_\_\_\_.

The indicator that best helped us reach that conclusion was

\_\_\_\_\_

because it suggests

\_\_\_\_\_.

- Point 2: The consensus about the future path of the economy is currently

\_\_\_\_\_.

The indicator that best helped us reach that conclusion was

\_\_\_\_\_

because it suggests

\_\_\_\_\_.

Overall, based on the data, our monetary policy recommendation to address the unique economic circumstances created by the COVID-19 crisis is to

\_\_\_\_\_

\_\_\_\_\_.

This will get the economy on track in the most responsible way possible.



FEDERAL RESERVE BANK *of* NEW YORK

33 of 34

### **Appendix for Remote or Virtual Learning**

In the event a traditional classroom environment is not available, there are options provided below for the activities and readings.

- Each of the readings has a provided hyperlink so that students can read them online.
- For the simulation of the circular flow model in Supporting Question 1, the Federal Reserve Bank of St. Louis has a video that nicely illustrates the model:
  - <https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-6-circular-flow>
- For the simulation of open market operations, the Federal Reserve Bank of Philadelphia has a succinct video explaining traditional operations.
  - <https://www.youtube.com/watch?v=jvRwFkDdWZU>
- For discussion of the non-traditional monetary policy tools, students can watch Federal Reserve Chair Jerome Powell discuss the Federal Reserve's new toolbox on the Today show.
  - <https://www.today.com/video/fed-chairman-jerome-powell-there-s-nothing-fundamentally-wrong-with-our-economy-81231429587>

