<u>UNIT 9 – MONETARY AND FISCAL POLICY (11 Days)</u>

The US federal government's taxation and spending policies, along with the Federal Reserve System's monetary policies are utilized to steady the economy, encourage economic growth and full employment, while keeping prices stable.

<u>EPF.6 The student will demonstrate knowledge of the nation's financial system by</u>
a) defining the role of money
(BUS6120.039)
Day 1 Characteristics and functions of money

<u>EPF.6 The student will demonstrate knowledge of the nation's financial system by</u>
b) explaining the role of financial markets and financial institutions
(BUS6120.039)
Day 1 Financial intermediaries and how they work

<u>EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by</u>
d) describing strategies for achieving national economic goals.
(BUS6120.038)
Day 1 What can the government do to help the economy reach full employment, stable prices and economic growth?

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices</u>
b) describing government's role in stabilizing the economy
(BUS6120.040)
Day 1 and Day 2 What fiscal policy tools can the government use to help stabilize the economy?

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by</u>
a) describing the purpose, structure and function of the Federal Reserve System
(BUS6120.040)
Day 1 What is the role and structure of the Federal Reserve System?
Day 2 Tools of monetary policy
Day 3 The role of interest rates

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by</u>
d) explaining balanced budget, deficit and national debt
(BUS6120.040)
Day 1 Government budgets and their effect on the economy

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by</u>
c) describing sources of government revenue
(BUS6120.040)

Day 1 Sources of national, state, and local revenue

Evaluation Day

Day 1 – Characteristics and Functions of Money

EPF.6 The student will demonstrate knowledge of the nation's financial system by
a) defining the role of money

Content Knowledge

We all have unlimited wants. We try to satisfy those unlimited wants and needs by consuming goods and services. Money makes trade for those goods and services easier.   Whether it is an American dollar, a gold coin, or a wampum shell – money has three basic functions. As a medium of exchange, money makes it easier for us to trade for the goods and services that we want. As a measure of value, it is used to compare the market value of different goods and services. And, as a store of value, money makes it easier to save and invest.

In order to be considered "money," a dollar or a coin or a shell must be accepted by a seller as payment for goods or services. Something serving as money is more useful if it has the following characteristics: durability; portability; divisibility; uniformity; limited supply; and acceptability.

Paper money that is issued without the backing of gold or any other precious metals is considered fiat money. The U.S. dollar is considered fiat money; it is a piece of paper that is backed by the full faith and credit of the U.S. government. It's value is determined by the sole fact that a seller will accept it in exchange for goods and services. A seller will accept that piece of paper because the seller knows that others will accept it in payment for goods or services.

Vocabulary
Characteristics of Money:

- **Durability –** Money that lasts over time is more functional than money that deteriorates.
- **Portability –** Money is more useful if it can be easily transportable over distances.
- **Divisibility –** Money is more useful if it can be easily divided into smaller units.
- **Uniformity –** Each unit of money must be the same as the next unit.
- **Limited supply –** Whatever is used as money needs to be scarce enough to be valued by buyers and sellers.
- **Acceptability –** Money must be acceptable as payment in exchange for goods or services.

Commodity money – Any good that has value and can be traded becomes commodity money when it is used as a medium of exchange. Salt, shells, furs, and tobacco have all been used as commodity money.
Fiat money – A monetary system where the currency is not based on a commodity but instead is declared by law to be acceptable as money.
Money Supply – The basic money supply in the United States is made up of currency, coins, and checking account deposits.

Virginia Board of Education Framework

Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services

Money is anything widely accepted as final payment for goods and services.

Money has six characteristics: durability, portability, divisibility, uniformity, limited supply, and acceptability.

Money acts as a medium of exchange, making trade easier.

Money encourages specialization by decreasing the costs for exchange.

Money acts as a store of value, making it easier to save and invest.

Money acts as a measure of value, making it easier to compare the value of goods and services.

Commodity money (e.g., gold coin) has value in itself, while fiat money (e.g., U.S. dollar) has value because the government has declared that it is acceptable for paying debts.

The basic money supply in the United States is made up of currency, coins, and checking account deposits.

Teaching Tips

1) Demonstrate their understanding of money as a "store of value" in responding to the following: A wheat farmer wants to save for her five-year old daughter's college education. Why is she better off selling her wheat for money and saving the money than she would be if she saved wheat to exchange for her daughter's college tuition? Then have students explain how money is a "measure of value" using the following example: Explain the advantages of being able to use money to compare prices of a gallon of milk in three different stores as opposed to when prices are expressed as one gallon of milk equals 10 pencils, or 6 apples, or half of a pound of roast beef.[2]

2) Explain why deposits in checking accounts are considered money but assets such as stocks and bonds are not. (*Because checks are accepted in exchange for goods and services, but stocks and bonds have to be sold –converted into money—to be readily accepted in exchange for goods and services.)* Also explain why a credit card should not be considered money *(credit cards represent loans).*[2]

3) Using a decision grid evaluate the following items based on the six characteristics of money: salt, large stone wheels, cattle, fur, and pieces of paper printed by the government. Have your students choose the item that they think would work best as money.

4) You can't eat money or wear money. It is important for the roles it plays. As a medium of exchange, it makes trade easier. Conduct a barter activity to show that with bartering there

must be a "double coincidence of wants." That is, Bob must find someone who has what he wants and who wants what Bob has. Trading with money solves this problem.

Lessons and Resources

Advanced Placement Economics: Teacher Resource Manual Macroeconomics Unit 4: Lesson 1: Money

Focus: Economics Grades 3 – 5 Lesson 10: What Makes Money Acceptable?

EconEdLink.org – Money is as Money Does
https://www.econedlink.org/resources/money-is-what-money-does/

EconEdLink.org – What is Money? Why Does It Have Value?
https://www.econedlink.org/resources/what-is-money-why-does-it-have-value/

St.Louis Fed online unit Money Circle.
https://www.stlouisfed.org/education/classroom-econnections-from-the-fed/episode-2-resources-for-teaching-money-and-banking-in-high-school-classrooms

Music
"Can't Buy Me Love" The Beatles
"Money" Pink Floyd
"Money, Money, Money" Abba

Video
"Barter" or "*This for That*" Schoolhouse Rock
http://www.youtube.com/watch?v=J7hNOt2Y0J8

Stalag 17 – DVD (Chapter 5, Six minutes)

EPF.6 The student will demonstrate knowledge of the nation's financial system by
b) explaining the role of financial markets and financial institutions

Day 1 – Financial intermediaries and how they work

Content Knowledge

A financial intermediary is a “middleman” that brings together savers who have surplus money to lend and borrowers who have a need for that money. Banks, credit unions and savings and loan associations all act as financial intermediaries.

Many students (and adults) tend to think of banks and credit unions as warehouses for money. They may think that financial intermediaries such as banks simply store the money deposited by savers. Actually, banks are businesses and they make money on the difference between the interest paid to depositors and the interest charged to borrowers. Thus they try to lend most of their deposits. Only a small percentage of a bank’s deposits are in the bank at any time.

Vocabulary
Bank – A financial institution that provides various products and services to its customers, including checking and savings accounts, loans and currency exchange.
Credit union – A nonprofit financial institution owned by its members; offers various financial services including accounts and loans
Intermediaries – Firms that stand between savers and borrowers, serving to collect excess funds (savings) and convert them to loans.

Virginia Board of Education Framework
Financial markets bring together people who have money to lend and are willing to take risks to earn a return with people who want to borrow for a specific purpose.

Financial institutions act as intermediaries by facilitating the interaction of borrowers and savers in financial markets.

In a market economy, scarce goods and services are allocated through the influence of prices on production and consumption decisions.

A financial institution is an organization that provides financial products and services to consumers.

Financial institutions provide products like checking and other accounts that help consumers manage money. They provide services and advice to help consumers meet their financial goals.

Financial institutions can provide a safe place for individuals to hold money, and they help channel money from savers to borrowers.

Banks, credit unions, and insurance companies are examples of financial institutions.

Financial institutions attract funds from savers by offering interest rates on savings. Financial institutions use depositors' savings to earn income by lending to borrowers or investing in other financial products.

Financial institutions are able to pool the savings of many individuals in order to make loans to borrowers.

Banks create money by lending.

Government protects consumers in financial markets through regulation and enforcement by agencies such as the Securities and Exchange Commission and the Federal Reserve System.

Teaching Tips

1) Ask students why banks exist. Brainstorm the challenges that would arise in life without a banking system. (paying bills with cash, no ATMs, keeping money safe, where to get a loan to go to college, buy a home, start a business). A well functioning banking system is crucial in today's complex economy.

2) Banks are businesses. They channel money from savers to borrowers and make money from the difference in interest they earn on loans and the interest they pay on savings deposits. Today banks also provide other services on which they earn fees.

3) Without banks, it would be more difficult for borrowers to find lenders. To make this point, consider using an activity such as those from the Learning, Earning and Investing, Focus: Institutions and Markets, or Once Upon a Dime lessons below, in which students act as people with money to lend and those desiring to borrow.

4) When banks make loans, the money supply increases; when loans are paid off, the money supply decreases. Have students demonstrate how successive deposits and loans made by commercial banks, resulting from one new deposit in the banking system, cause the money supply to expand and how repayment of loans causes the money supply to contract.[2] The AP Economics and Capstone lessons below provide activities to demonstrate how bank loans affect the money supply. Banks "create" money by lending.

Lessons and Resources

Advanced Placement Economics: Macroeconomics. Unit 4, Lesson 2. Banks and the Creation of Money.

Capstone: Exemplary Lessons for High School Economics. Unit 6, Lesson 34. Money and Monetary Policy.

Financial Fitness for Life Grades 6 – 8 Theme 4: Lesson 11: Let Lenders and Borrowers Be

Learning, Earning, and Investing High School Lesson 11: Financial Institutions in the U.S. Economy

Focus: Institutions and Markets Lesson 4: Financial Systems

Econedlink Lesson. Banks and Credit Unions.
https://www.econedlink.org/resources/banks-credit-unions-part-i/

Once Upon a Dime Video and comic book that explains how financial institutions act as intermediaries between savers and borrowers. Lesson plans
https://www.newyorkfed.org/outreach-and-education/comic-books

EPF.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by
d) describing strategies for achieving national economic goals.

Day 1 – What can the government do to help the economy reach full employment, stable prices and economic growth?

Content Knowledge

Students need to understand that the government has an important role to play in the economy. The economic goals that the federal government tries to reach include full employment, stable growth, and stable prices. Government can pursue policies aimed at reaching the goal of a strong, stable economy. It has various tools at its disposal, each with strengths and limitations. These tools are referred to as "fiscal policy."

Fiscal policy refers to how government taxing and spending policy can be used to influence the economy. In addition to changing tax policies and making deliberate changes in spending to stimulate or slow the economy, the government can undertake other policies to improve the health of the economy.

Vocabulary
Fiscal policy – Government policy to influence overall levels of employment, stability, and prices using taxing and spending.

Virginia Board of Education Framework
Market economies tend to grow because there are incentives which encourage people to work, entrepreneurs to bring innovations to market, and businesses to expand, pursuing increased profits.

When growth is slow and unemployment high, government can
- implement policies such as investment tax credits to encourage businesses to expand and hire more people
- implement job training programs to help the unemployed
- use fiscal policy (e.g., changes in federal taxes and spending) to help the economy toward full employment, stable prices, and stable growth.

Ongoing governmental economic support includes
- working to assure the health of the nation's financial institutions through regulation and enforcement
- supporting unemployment insurance, which helps stabilize the economy in times of slow growth
- encouraging invention, innovation, and growth through patent and copyright laws
- promoting pure research (e.g., Human Genome Project) through grants and programs such as NIH (National Institutes of Health).

Teaching Tips

1) Recall the business cycle which shows how the economy typically goes through stages of expansion, peak, contraction, and trough. Peaks generally have the problem of inflation and troughs the problem of unemployment. Remind students of the problems inflation and unemployment bring From Unit 8 (EPF5a), have students review these economic indicators: GDP, CPI, and Unemployment Rate and how to recognize a healthy economy.

2) Ask students why government would have any role in stabilizing the economy. Explain that since the 1946 Full Employment Act the federal government has assumed the responsibility for doing what it can to stabilize the economy. (This act was passed because after WWII congress was worried that there might be massive unemployment when the soldiers came home.) Congress can use fiscal policy, change spending and taxing to increase or decrease aggregate (total) demand to stimulate growth or slow it down. This will be explored in the next lesson. Here, explore other government activities the government undertakes to encourage economic growth and full employment--things such as job training, basic research and infrastructure. Discuss the purpose/value of these expenditures. Discuss questions such as the following:
   - What can government do to create an environment that encourages entrepreneurship since new companies hire people? *(Small Business Administration—expertise and grants; eliminate unnecessary paperwork and regulations; protect patents and copyrights)*
   - What can government do to reduce structural unemployment? *(Provide re-training. Provide incentives for firms to hire and re-train)*

3) Discuss how the programs of the New Deal were designed to stimulate the economy through government spending and government programs that employed people directly. The St. Louis Fed has a lesson that would be a good fit here: Lesson 4 Dealing with the Great Depression.

Lessons and Resources

Focus: Understanding Economics in Civics and Government Lesson 5: Government Spending

Focus: High School Economics Lesson 18: Economic Ups and Downs

Focus: Understanding Economics in Civics and Government Lesson 5: Government Spending

Focus: High School Economics Lesson 18: Economic Ups and Downs

EconEdLink.org – Government Spending: Why Do We Spend the Way We Do?
https://www.econedlink.org/resources/government-spending-why-do-we-spend-the-way-we-do/

Federal Reserve Bank of St. Louis--Dealing with the Great Depression--Lesson 4
http://www.econedreviews.org/lesson.php?id=1218

Making Sense with Paul Solman: Returning Vets Face a New Battle: The Job Market--
https://www.econedlink.org/resources/making-sene-with-paul-solman-returning-vets-face-a-new-battle-the-job-market/

Making Sense with Paul Solman: So You Have a Liberal Arts Degree and Want a Job?--
https://www.econedlink.org/resources/making-sene-with-paul-solman-so-you-have-a-liberal-arts-degree-and-want-a-job/

Making Sense with Paul Solman: For Some, Finding Work Proves Extra Difficult
https://www.econedlink.org/resources/making-sene-with-paul-solman-for-some-finding-work-proves-extra-difficult/

EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices
b) describing government's role in stabilizing the economy

Day 1 and Day 2 – What fiscal policy tools can the government use to help stabilize the economy?

Content Knowledge

Fiscal policies are decisions to change spending and taxation levels by the federal government. As fiscal policies, these decisions are adopted to influence national levels of output, employment, and prices.

In the short run, increasing federal spending and/or reducing taxes can promote more employment and output, but these policies can also put upward pressure on the price level and interest rates. Decreased federal spending and/or increased taxes tend to lower price levels and interest rates, but they reduce employment and output levels in the short run.

Policy makers and the general public continue to examine and debate the overall stabilization effects of public policy actions (such as stimulus packages), because the consequences are so important. Citizens should understand the role of conflicting objectives and the limitations on the effectiveness of economic stabilization policies in order to develop realistic expectations about what can be accomplished with taxation, spending, and monetary policies (addressed in the section about the Federal Reserve System).[2]

Vocabulary
Fiscal policy – Government policy to influence overall levels of employment, stability, and prices using taxing and spending.

Virginia Board of Education Framework
Federal government fiscal policies influence the overall levels of employment, output, and prices. Fiscal policy decisions are decisions to change the level of spending and tax levels by the federal government. These decisions are adopted to influence national levels of output, employment, and prices.

Under conditions of slow growth or high unemployment, expansionary fiscal policy could stimulate the economy. In the short run, increasing federal spending and/or reducing taxes can promote more employment and output, but these policies eventually put upward pressure on the price level and interest rates.

Under inflationary conditions, the government may choose contractionary fiscal policy to slow the economy. Decreased federal spending and/or increased taxes tend to lower price levels and interest rates, but they reduce employment and output levels in the short run.

Teaching Tips

1) Introduce the fiscal policy tools and how they would be used to fight unemployment or inflation. Discuss these questions with students: When would the government be likely to pursue expansionary fiscal policy? How would the fiscal policy tools be used in this case?

2) Have students look up current economic indicators. If the economy is struggling, what fiscal policies would students recommend?

3) Ask students if they've heard anything in the news about a government economic stimulus. Ask what they think it means. When the economy is growing too slowly and unemployment is high, congress may try to stimulate the economy by increasing spending and/or decreasing taxes. This would be called a fiscal stimulus. If the economy is beset by inflation, congress may try to slow it down by raising taxes and cutting government spending. These actions represent fiscal policy.

4) This hands-on lesson is especially effective in showing how fiscal policy works: Economics in Action: 14 Greatest Hits for Teaching High School Economics Lesson 12: Fiscal Policy: A Two Act Play

5) Help students understand that both fiscal and monetary policy work by influencing demand---either bringing about an increase or a decrease in aggregate (total) demand. An excellent lesson for this is on EconEdlink--Fiscal and Monetary Policy. https://www.econedlink.org/resources/fiscal-and-monetary-policy-process-and-interactive-quiz/

6) Politicians throughout history have not always agreed on how/when fiscal policy should be implemented. Show Paul Solman's video clip on the PBS Newshour and discuss how taxes affect the economy. Point out that lower tax rates may lead to an increase in the federal budget deficit. Does raising taxes really slow the economy or vice versa? What does the data show?

Lessons and Resources

Economics in Action: 14 Greatest Hits for Teaching High School Economics Lesson 12: Fiscal Policy: A Two Act Play

Teaching Financial Crises Lesson 8: Understanding Financial Markets, 2007-2009

Capstone: Exemplary Lessons for High School Economics Unit 6: Lesson 37: Can Government Manage the National Economy?

EconEdLink.org – The Role of the Government: The Federal Government and Fiscal Policy https://www.econedlink.org/resources/the-role-of-government-the-federal-government-and-fiscal-policy/

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by</u>
a) describing the purpose, structure and function of the Federal Reserve System

Day 1 – What is the role and structure of the Federal Reserve System?

Content Knowledge

The Fed is in the daily news, but its purpose and activities are a mystery to many. The Fed performs vital roles in the US economy and its actions will affect students now and in the future, so it will be helpful for them to understand its mission and activities. Since many students will be borrowing money for cars or to go to college they will care about interest rates. In this unit they will learn how and why the Fed may influence interest rates.

Like most industrialized nations, the United States has a central bank to meet certain needs of its complex economy and financial system. Unlike most central banks, however, the U.S. Federal Reserve System—often called the Fed—is, in a sense, a "decentralized" central bank. It consists of a Board of Governors in Washington, D.C., 12 regional Federal Reserve Banks and their branches, and the Federal Open Market Committee.

Established in December 1913 by the Federal Reserve Act, the Federal Reserve System was designed to address the conditions underlying the money panics that had plagued the country for many years. The act has been amended several times to enhance the Fed's ability to foster a sound financial system and a healthy economy.

The Federal Reserve System advances this goal in several ways. Its monetary policy decisions affect the flow of money and credit in the economy. It contributes to the safety and soundness of the nation's financial system by establishing regulations and acting as a commercial bank supervisor. And, by serving as a bank for depository institutions and the federal government, the Fed helps ensure that the system of paying for all kinds of transactions works efficiently. In carrying out these three functions, the Fed also helps to stabilize the financial system and to contain systemic risk that may arise in financial markets.
(From: Federal Reserve Structures and Functions
https://www.frbatlanta.org/about/publications/fed-structure-and-functions

Vocabulary
Monetary policy – Changes in the supply of money and the availability of credit initiated by a nation's central bank to promote price stability, full employment and reasonable rates of economic growth.

Virginia Board of Education Framework
The Federal Reserve System, often called the Fed, is the central banking system of the United States.

The goal of the Federal Reserve System is to help the economy achieve stable prices, full employment, and economic growth.

The structure of the Federal Reserve System helps to ensure that regional information is represented in national policy decisions and that the Fed remains accountable to the people.

The Federal Reserve System's responsibilities include conducting monetary policy; supervising and regulating financial institutions; and providing services to depository institutions, the federal government, and the public.

Twelve regional Federal Reserve Banks and their branch offices carry out the day-to-day responsibilities of the Federal Reserve System.

The Board of Governors of the Federal Reserve System, whose members are appointed by the President of the United States and confirmed by the U.S. Senate, provides leadership for the Federal Reserve System.

The Federal Open Market Committee (FOMC) is responsible for making monetary policy decisions. The FOMC is composed of members of the Board of Governors and presidents of the twelve Federal Reserve Banks.

The Federal Reserve System supervises and regulates banks to promote the safety and soundness of the banking system, to foster stability in financial markets, and to ensure compliance with applicable laws and regulations.

The Federal Reserve System provides other services including supplying paper money and coin to banks, processing checks and electronic payments, and protecting consumers through regulation and education.

Teaching Tips

1) The teacher should spend some time pointing out that there were two attempts at setting up central banks in the United States that failed. One was dominated and controlled by the banking industry. The other was dominated and controlled by the government. Both of them failed within 20 years. The Federal Reserve has a controversial and unique structure that allows for "independence within government." This means that, to a large extent, the members of the Board of Governors, once appointed by and approved by government, have a certain amount of political insulation that allows them to make decisions without undue political pressure from any branch of government or political party. At the same time, the Presidents of the regional Federal Reserve Banks provide more diversified input than can be found in a strictly governmental structure. Additionally, the Federal Reserve Banks provide

the funds that run the System, keeping it independent of the financial strings that come with budget control by government.

2) Below there are several excellent lessons and videos on the structure of the Fed.

Lessons and Resources

Focus: Understanding Economics in U.S. History Lesson 28: Money Panics and the Establishment of the Federal Reserve System

Learning, Earning, and Investing: High School Lesson 21: Lessons from History: Stock Market Crashes

EconEdLink.org – Who is Ben Bernanke?
http://www.econedlink.org/lessons/index.php?lid=700&type=educator

In Plain English: Making Sense of the Federal Reserve
Video, lesson plans https://www.stlouisfed.org/in-plain-english

Lesson Plan: Balance of Power – The Political Fight for An Independent Bank
https://www.kansascityfed.org/education/resources/balance%20of%20power%20teaching%20guide

Kansas City Fed online unit Money Circle: Theme Four: Money Flow
https://www.kansascityfed.org/education/moneycircle

Day 2 – Tools of Monetary Policy

Content Knowledge

Why is the Fed pushing interest rates up just when I want to buy a house? Why are they pushing interest rates down just when I'm ready to retire and need to earn some interest income? It's not personal; they are looking at the big picture--sometimes called the macro economy. The Fed's job is to work for the health and stability of the overall economy, safety of the banking system and the soundness of the US currency. Understanding how and why the Fed acts will help students make sense of news reports about the Fed. It may also help one better decide the best timing of certain personal financial decisions.

Monetary policies are decisions by the Federal Reserve System that lead to changes in the supply of money, short term interest rates, and the availability of credit. Changes in the growth rate of the money supply can influence overall levels of spending, employment, and prices in the economy by inducing changes in the levels of personal and business investment spending.[2]

The Federal Reserve System's major monetary policy tool is open market purchases or sales of government securities, which affects the money supply and short-term interest rates. Other policy tools used by the Federal Reserve System include making loans to banks (and charging a rate of interest called the discount rate). In emergency situations, the Federal Reserve may make loans to other institutions. The Federal Reserve can also influence monetary conditions by changing depository institutions' reserve requirements.[2]

A central bank has three tools to influence the money supply and interest rates, all of which operate through the banking system. The first and most commonly used tool is open market operations, which involves buying and selling government bonds. When the central bank buys bonds, it increases the amount of money in the economy; when the central bank sells bonds, it reduces the amount of money in the economy. In conducting open market operations, the Federal Reserve tries to influence the federal funds rate, which is the interest rate a bank charges when it lends excess reserves to another bank. A second tool is the reserve requirement, which is the percentage of deposits that banks are required to hold and not lend out. A higher reserve requirement reduces the money supply by limiting bank lending; a lower reserve requirement increases the money supply by increasing bank lending. The third tool is the discount rate, which will be addressed on Day 3.[3]

Vocabulary
Monetary policy – Changes in the supply of money and the availability of credit initiated by a nation's central bank to promote price stability, full employment and reasonable rates of economic growth.
Open-market operations – The buying and selling of government bonds by the Federal Reserve to control bank reserves and the money supply.
Reserve requirement – The fraction of banks' deposits that they are required by law to keep on hand or with the Federal Reserve.
Discount rate – The interest rate the Federal Reserve charges commercial banks for loans.

Virginia Board of Education Framework
Monetary policy can lead to changes in the supply of money and the availability of credit. Changes in the money supply can influence overall levels of spending, employment, and prices in the economy.

The major monetary policy tool of the Federal Reserve System is open market operations (purchases and sales of government securities). Other policy tools include increasing or decreasing the discount rate charged on loans it makes to banks (and other depository institutions) and raising or lowering reserve requirements for those same financial institutions.

Monetary policy decisions by the Federal Reserve System lead to changes in the supply of money and the availability of credit. Changes in the money supply can influence overall levels of spending, employment, and prices in the economy.

Teaching Tips

1) Remind students of the costs of inflation and unemployment. Explain that the individual can make choices to protect him/herself from inflation and unemployment--but can't do anything to fix them for society. Some would say that congress and the Fed should do nothing and just wait for economic conditions to get better. However, if the Fed could use it's tools to keep inflation down and employment growing that would help society. Introduce the three tools of the Fed--explaining how each would be used to combat unemployment and slow growth or inflation. Explain that both monetary and fiscal policy actions work by bringing about an increase or decrease in aggregate (total demand). Aggregate demand includes consumer, investment and government spending and net exports (exports-imports).Playing the roles of members of the Federal Open Market Committee, decide for each of the headlines below whether an expansionary policy or a contractionary policy would be more appropriate and how each of the tools might be used. Newspaper headlines: Unemployment Rate Soars; New Housing Starts Rise; CPI Rises At Faster Pace for Third Consecutive Month.[2]

2) Karl Ochi, economics teacher at Washington High School in San Francisco, uses this "rope of monetary policy" analogy to explain how monetary policy works: A sturdy rope is tied around the waist of a student volunteer. The teacher holds the other end of the rope. A wall in front of the student is marked with the sign "Y/Full-Employment Output/Capacity." The student is instructed to move, with steady pressure, toward the sign on the wall. At first, the teacher should hold the rope tightly, preventing the student from reaching the target. Then the teacher should let the rope loose and the student will fall forward, bumping into the target; the excess rope falls to the floor. In this example, the rope represents the money supply, the student represents GDP or output, the sign represents capacity (cannot be exceeded by much in the short run) and the teacher represents the Federal Reserve. This is a direct visual depiction of tight and loose monetary policy. Then the teacher should secretly tell the student to move forward and backward erratically to show that monetary policy must be dynamic to adjust to changing economic conditions. The students are challenged to determine the conditions under which tight and loose monetary policy would be appropriate as well as the pitfalls of incorrectly timed policy or of too drastic a policy action.[3]

3) Below are several excellent lessons demonstrating the tools of the Fed as well as the relationship of the money supply and inflation.

Lessons and Resources

Capstone: Exemplary Lessons for High School Economics Unit 6: Lesson 34: Money and Monetary Policy

Economics in Action: 14 Greatest Hits for Teaching High School Economics Lesson 11: Money and Inflation

The Great Depression Lesson 6: Could It Happen Again?
https://www.stlouisfed.org/education/great-depression-curriculum-unit

The Trial of Monty Terry – Reader's Theater and lesson plan
https://www.frbatlanta.org/education/classroom-economist/trial-of-monty-terry.aspx

EconEdLink.org – It's a Not So Wonderful Life
https://www.econedlink.org/resources/its-a-not-so-wonderful-life/

St.Louis Fed online unit Money Circle: Theme Four: Money Fundamentals
http://www.federalreserveeducation.org/resources/MoneyCircle/

Day 3 – The role of interest rates

Content Knowledge

The Federal Reserve System's major monetary policy tool is open market purchases or sales of government securities, which affects the money supply and short-term interest rates. Other policy tools used by the Federal Reserve System include making loans to banks (and charging a rate of interest called the discount rate). In emergency situations, the Federal Reserve may make loans to other institutions. The Federal Reserve can also influence monetary conditions by changing depository institutions' reserve requirements.[2]

The Federal Reserve targets the level of the federal funds rate, a short-term rate that banks charge one another for the use of excess funds. This target is largely reached by buying and selling existing government securities.[2] In turn, the fed funds rate influences other rates since it helps determine banks' minimum cost of getting funds. Thus when the federal funds rate increases banks will probably raise the interest rates they charge, rates such as the prime rate, and thing such as rates on mortgages and car loans.

The Federal Reserve tends to increase interest rate targets when it feels the economy is growing too rapidly and/or the inflation rate is accelerating. It tends to lower rate targets when it wants to stimulate the short-term growth of the economy.[2]

Along with open market operations and changing the reserve requirement, a third tool that the Fed uses to influence the money supply and interest rates is the discount rate. The discount rate is the rate charged by the central bank if individual banks wish to borrow funds. A higher discount rate reduces the money supply while a lower discount rate increases the money supply. In times of financial crisis, the Federal Reserve may exercise emergency powers to stabilize financial markets or to oversee the winding-down of troubled financial institutions.

Vocabulary

Monetary policy – Changes in the supply of money and the availability of credit initiated by a nation's central bank to promote price stability, full employment and reasonable rates of economic growth.
Discount rate – The interest rate the Federal Reserve charges commercial banks for loans.
Fed Funds rate - The interest rate that banks charge each other when loaning bank reserves through the federal funds market. This is a key interest rate in the economy because it helps to determine banks' minimum cost of getting funds. If the federal funds rate is higher, then banks are likely to raise the interest rates they charge, like the prime rate, home mortgage rate, or rate on car loans. (From AmosWeb)
Prime rate - The interest rate banks charge their best, most credit-worthy customers. This is one of the key interest rates in the economy, and it is watched closely by financial types, government policy makers, and businesses. It's also an interest rate that should be watched closely by consumers who have loans with adjustable rates, like credit cards, that are "pegged" to the prime rate. Any movement in the prime rate triggers an automatic change in these adjustable rates. (From AmosWeb)

Virginia Board of Education Framework
Monetary policy affects interest rates in the economy. Interest rates act as incentives that influence people's spending and saving decisions.

To fight inflationary pressure, the Federal Reserve System could implement monetary policy that causes higher interest rates in the economy. Higher interest rates would discourage personal and business borrowing and spending and relieve inflationary pressure.

Teaching Tips

1) Ask students what they know about interest rates. Perhaps they know about interest rates on credit cards or car loans. Explain there are many types of rates. The prime rate is the rate banks charge their best customers. It is set by big banks. The Fed has a rate it charges member banks--that is called the discount rate. If the Fed wants to slow the economy it raises this rate and vice versa. When it raises the rate, it acts as a signal to banks to tighten credit, which will slow the economy. When it lowers the rate, it signals banks to ease credit. The discount rate is one of the Fed's monetary policy tools, along with the reserve requirement and open market operations. Open market operations is the tool the Fed uses most. Students will explain how a change in the target rate of interest may act as an incentive to banks, savers and lenders to change their behavior.

2) An interest rate that is frequently in the news is the Fed Funds Rate. This is the rate banks charge each other for overnight loans. Ask why a bank might need an overnight loan. (*Banks are required to hold a percentage of their deposits on reserve at the Fed--based on the Fed's Reserve Requirement. If their reserves fall below those levels, they can borrow from the Fed to make up the difference or they can borrow from a bank that has more reserves than it needs.*) When the Fed is pursuing an "easy money" policy--where credit is easier to get--it takes actions to bring down the Fed Funds Rate. When the Fed is pursuing a "tight money" policy--where credit is harder to get--it takes actions to increase the Fed Funds Rate.

3) To explain the effect of the supply of money on interest rates, use a supply and demand graph with the vertical (Price) axis as the price of money (the interest rate – what we have to pay to borrow money) and the horizontal axis Quantity of Money. Draw a supply curve sloping up and to the right. By increasing the supply of money (shifting the supply curve to the right), note the effect on the interest rate: it declines. When the supply of money decreases (shifts to the left), the interest rate increases. Explain that the Fed targets the interest rate (specifically, the federal funds rate) by increasing or decreasing the supply of money through its open market operations – it does not set the interest rate.

4) To help students understand the importance of credit in the economy, show the PBS Paul Solman video clip "Small Businesses Battle the Credit Crunch" to see how businesses are hurt when credit is tight. http://www.econedreviews.org/lesson.php?id=1380

5) Ask students to explain how a change in the target rate of interest may act as an incentive to banks, savers and lenders to change their behavior. Begin by reminding students that banks must keep reserves at a certain level or the bank can be closed. Most banks have sufficient reserves or have a surplus of reserves when they file a report. Only a relative few will need to borrow. Those will borrow at the prevailing Fed Funds rate and they will continue until the next time they have to report. But if the Federal Reserve chooses to change the target rate for Fed Funds, the situation will change.

6) If the Federal Reserve raises the target for Fed Funds, banks that need reserves are forced to pay a higher rate of interest. To meet this additional expense, they can do two things. First, they can raise the rate of interest they pay on deposits. This will attract more deposits from customers and maybe even some new customers who are seeking better returns on savings. While this adds to their expense, it also adds to their deposits and may eliminate the need to borrow reserves. Second, they can increase the rate of interest on loans. This will decrease the number of loans made because the higher rate will keep some people from borrowing. This will bring in additional revenues to cover the additional expense. Either way, interest rates rise.

7) Write an article for the business section of the local newspaper explaining how changes in monetary policy affect the money supply, interest rates, and the path of economic activity in their community.[2]

Lessons and Resources

Focus: High School Economics Lesson 19: Money, Interest, and Monetary Policy

Teaching Financial Crises Lesson 5: Monetary Policy in the Recent Financial Crisis

Advanced Placement Economics: Teacher Resource Manual Macroeconomics Unit 4: Lesson 6: Interest Rates and Monetary Policy in the Short Run and the Long Run

EconEdLink.org – Fiscal and Monetary Policy
https://www.econedlink.org/resources/fiscal-and-monetary-policy-process-and-interactive-quiz/

EconEdLink.org – The Federal Reserve Overview Lesson
https://www.econedlink.org/resources/the-federal-reserve-system-overview-lesson/

Open and Operating: The Federal Reserve Responds to September 11 – lessons and video
http://www.frbsf.org/education/teachers/open/

Making Sen$e with Paul Solman: Small Businesses Battle the Credit Crunch
to see how businesses are hurt when credit is tight because banks are not lending.
https://www.econedlink.org/resources/making-sene-with-paul-solman-small-businesses-battle-the-credit-crunch/

Video
Making Sense with Paul Solman: Problem of Transparency Nothing New to the Fed
https://econedlink.org/resources/making-sene-with-paul-solman-problem-of-transparency-nothing-new-to-the-fed/?view=projector

EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by
d) explaining balanced budget, deficit and national debt

Content Knowledge

What is the difference between the budget deficit and the National Debt? Is there ever a time when it would be appropriate for the federal government to run a deficit (borrow money to cover current expenses)?

In any given year, the government collects tax revenues and makes expenditures. If taxes collected exceed government expenditures in a given year, the government has a budget surplus. If taxes collected are exactly equal to expenditures in a given year, the government has a balanced budget. If taxes collected are less than the money spent in a given year, the government has a budget deficit. When a budget deficit occurs, the government borrows the money that it needs to finance its expenditures. For example, the U.S. government borrows by issuing Treasury bonds.[3]

Public debt refers to the total accumulation of all the annual government deficits and/or surpluses from years past. For example, imagine that at some point in time, the government has no outstanding debt. Then, in the next three years, it has a budget deficit of $100 in the first year, a budget surplus of $50 in the second year and a budget deficit of $80 in the third year. Total public debt would be $130, which is the sum of the yearly deficits and surpluses. Public debt is sometimes called government debt held by the public or just government debt.[3]

Vocabulary
Budget deficit – Refers to national budgets; occurs when government spending is greater than government income in a given year. A yearly deficit adds to the public debt.
Budget surplus – Refers to national budgets; occurs when government income is greater than government spending in a given year.
National debt – The total amount owed by the national government to those from whom it has borrowed to finance the accumulated difference between annual budget deficits and annual budget surpluses; also called public debt.

Virginia Board of Education Framework
When federal government revenues and expenditures are equal, the budget is balanced.

The federal budget is in deficit when the government’s expenditures exceed its revenues.

The federal budget is in surplus when the government’s revenues exceed its expenditures.

When the budget is in deficit, the government must borrow by selling securities to individuals, corporations, financial institutions, and/or other governments to finance that deficit.

The national debt is the total amount of money the federal government owes. This is the sum of all its past annual deficits and surpluses. The government pays interest on the money it borrows to finance the national debt. The money spent on this debt service (interest) is not available to pay for other government priorities.

The federal government's annual budget is balanced when its revenues from taxes and user fees equal its expenditures.

A budget deficit results when spending exceeds revenues.

The national debt is the sum of what the federal government owes.

Teaching Tips

1) Predict the costs that would be imposed on the public if federal taxes were increased to balance the budget when the economy is in recession, and explain how political goals conflict with economic goals.[2]

2) Budget Puzzle Simulation: You Fix the Budget
This is an excellent group exercise. Put the students in groups of four or five. Then have each group go through the various "choices" presented. They should be trying to solve the problem, but they should also be aware of the trade-offs involved in each option. After the students have had time to work through the simulation, ask each group to report out. How did they do? What were they able to do? What was the most difficult choice they had to make?
http://www.nytimes.com/interactive/2010/11/13/weekinreview/deficits-graphic.html

3) Who holds the US debt? Ask your students to whom they think the federal debt is owed. Sometimes students want to know to whom the public (or federal or national) debt is owed. Currently, about 74 percent of the debt is owed to U.S. citizens (individuals, businesses, and federal, state and local governments). The remainder is owed to foreign individuals, businesses, and governments.

4) Some argue for a balanced budget amendment to force congress to live within its budget. But, is there ever an occasion when the government should run a deficit--spend more than it takes in? Some would say yes. Balancing the budget in times of recession would increase unemployment, as happened under President Hoover in the Great Depression. They argue for balancing the budget over the business cycle--this means running a budget deficit during downturns and running a surplus (spending less than they take in) during times of inflation. Have students read the description on AmosWeb and debate the merits of each.
http://www.amosweb.com/cgi-bin/awb_nav.pl?s=pdg&c=dsp&k=21

Lessons and Resources

Capstone: Exemplary Lessons for High School Economics Unit 6: Lesson 36: Should We Worry About the National Debt?

EconEdLink.org – AP Economics: The Deficit and the Debt
https://www.econedlink.org/resources/ap-macroeconomics-the-deficit-and-the-debt/r

Fiscal Ship. A must-play game in which students attempt to balance the federal budget. From the Brookings Institution.
https://fiscalship.org/

<u>EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output and prices by</u>
c) describing sources of government revenue

Day 1 – Sources of national, state, and local revenue

Content Knowledge

With a federal deficit and a very large National Debt some call for tax increases while others call for cutting programs such as national defense, education, social security, and medicare, and still others stress the need to both decrease expenditures and increase revenue from taxes as a means to balance our budget and reduce the National Debt. Where do local, state and federal governments get the money to pay for the goods and services they provide? Most federal government tax revenue comes from personal income and payroll taxes. Payments to Social Security recipients, the costs of national defense and homeland security, medical expenditures (such as Medicare), transfers to state and local governments, and interest payments on the national debt constitute the bulk of federal government spending**.**

Most state and local government revenues come from sales taxes, grants from the federal government, personal income taxes, and property taxes. The bulk of state and local government revenue is spent for education, public welfare (including hospitals and health), road construction and repair, and public safety.[2]

Vocabulary
Tariff – A tax on imported goods.
Excise Tax – A tax on the manufacture or sale of a good or service. They are typically levied on goods and services a government wants to regulate. Sometimes excise taxes are called "sin taxes."
Property tax – Taxes that are commonly levied on real property, which consists of land and buildings. Some governments also tax personal property, such as cars and boats.

Virginia Board of Education Framework
Federal, state, and local governments collect taxes and fees to pay for the goods and services they provide.

Most local governments depend primarily on property taxes.

Most state governments depend on sales and income taxes.

The federal government gets the largest percentage of its revenue from individual income taxes. Other sources include

- payroll taxes for Social Security and Medicare programs (i.e., Federal Insurance Contributions Act – FICA)
- corporate income taxes

- excise taxes (e.g., tax on cigarettes and alcohol)
- fees (e.g., park entrance fees)
- **tariffs (i.e., taxes on certain imports, such as steel and sugar, for the purpose of protecting domestic producers)**

Teaching Tips

1) Compare the various sources of state and local revenues and various categories of state and local expenditures in their state and community with those of the U.S. federal government.[2]

2) Analyze the following situation: A government has to raise $100 billion of revenues. It can do so through a sales tax or a progressive income tax. Explain the effect of each tax on a low income and a high income family.[2]

3) Have students analyze pie charts and determine the source of federal revenues: Charts are available at Concord Coalition.
http://www.concordcoalition.org/learn/budget/federal-budget-pie-charts

Lessons and Resources

Mathematics and Economics: Connections for Life – 9 – 12 Lesson 13: Tax Math

Focus: Middle School Economics   Lesson 11: Where Does the Money Come From?

Concord Coalition--Federal Revenues and Expenditures:
http://www.concordcoalition.org/learn/budget/federal-budget-pie-charts

EconEdLink.org – Why Cities Provide Tax Breaks Even When They Are Strapped for Revenue?
https://www.econedlink.org/resources/why-cities-provide-tax-breaks-even-when-they-are-strapped-for-revenue/

Making Sen$e with Paul Solman What Do Tax Rates' Ups and Downs Mean for Economic Growth? https://www.econedlink.org/resources/making-sene-with-paul-solman-what-do-tax-rates-ups-and-downs-mean-for-economic-growth/

NOTE: These last two days can be incorporated with and added to Unit 7 on the Role of Government.