

May 11 - 15

Time Allotment: 20 minutes per day

Student Name:		
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Teacher Name:		



Packet Overview

Date	Objective(s)	Page Number
Monday, May 11	Explain the economy is modeled and measured	2
Tuesday, May 12, Wednesday, May 13 & Thursday, May 14	Fiscal Policy: (1) Identify types of taxes at the local, state, and national levels; (2) analyze the major categories of revenues and expenditures in the U.S. federal budget; and (3) analyze the impact of fiscal policy decisions on the economy. Monetary Policy: (1) Analyze the basic tools used to implement U.S. monetary policy, (2) explain how the actions of the Federal Reserve System affect the nation's money supply and influence the economy	6
Friday, May 15	Explain why regulations are needed	14

Additional Notes:

Remember, Guided Instruction via Zoom <u>on Tuesday and Thursday from 1-1:50, you can</u> <u>connect with me via Zoom</u> to ask questions, discuss concepts etc... However, you can email any time! Please continue to ask questions! E-mail: <u>Patrick.Franzese@greatheartsnorthernoaks.org</u>.

Again, each day's lesson is designed to take no more than 20 minutes. If you have spent more than 20 minutes on a lesson and/or you do not have access to a computer or the internet, then have your parent sign the page next to the "student expectation" section under each lesson and you will receive full credit for the assignment.

Academic Honesty

I certify that I completed this assignment independently in accordance with the GHNO Academy Honor Code.	I certify that my student completed this assignment independently in accordance with the GHNO Academy Honor Code.
Student signature:	Parent signature:

May 11 - 15



Monday, May 11 - Macroeconomics

Objective: Explain the economy is modeled and measured

Student Expectations: Annotate the reading and answer the questions.

Introduction to Lesson

Today we move to our final block of instruction that focuses on how the US Government manages the economy. This block squarely falls under the heading of "Macroeconomics" which looks at the economy as a whole. We have previously looked at concepts such as supply and demand, setting of prices, opportunity costs etc... that fall under "Microeconomics" which focuses on the actions of individual agents within the economy, like households, workers, and businesses. In today's lesson, we look at the factors of production that go into an economy, how the economy can be modeled graphically and how it can be measured.

Factors of Production

Factors of Production are resources that are the building blocks of the economy; they are what people use to produce goods and services. Economists divide these into four categories:

- 1) Land
- o Includes any natural resource used to produce goods and services.
- o Also includes not just land, but anything that comes from the land.
- o These are the raw materials in the production process.
- o Can be renewable, such as forests, or nonrenewable such as oil or natural gas.
- Examples are water, oil, copper, natural gas, coal, and forests.
- 2) Labor
- o Is the effort that people contribute to the production of goods and services.
- Examples include the work done by the waiter who brings your food at a local restaurant, the engineer who designed the bus that transports you to school, an artist's creation of a painting, a pilot flying the airplane overhead.
- 3) Capital
- o The machinery, tools and buildings humans use to produce goods and services.
- o Capital differs based on the worker and the type of work being done. For example, a doctor may use a stethoscope and an examination room to provide medical services. Your teacher may use textbooks, desks, and a whiteboard to produce education services. Other examples of capital include hammers, forklifts, conveyer belts, computers, and delivery vans.
- ***Money is not capital or any other factor of production***
- 4) Entrepreneurship.
- o An entrepreneur is a person who combines the other factors of production land, labor, and capital - to earn a profit. They build some of the largest firms in the world as well as some of the small businesses in a neighborhood.
- o The most successful entrepreneurs are innovators who find new ways produce goods and services or who develop new goods and services to bring to market.
- o Examples include Henry Ford or Bill Gates.

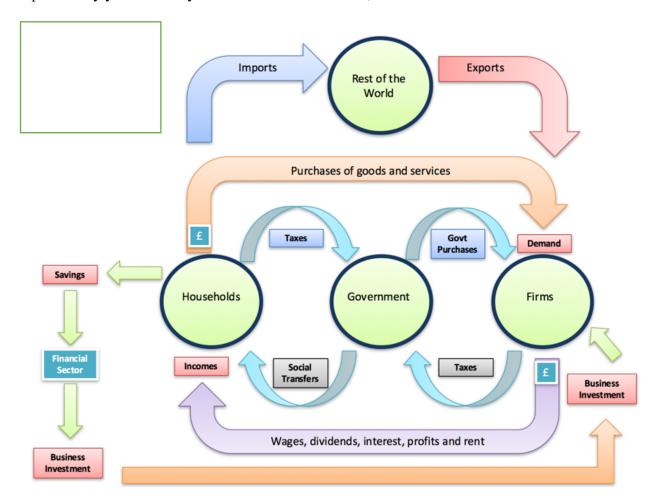
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The Circular Flow Model

The Circular Flow model demonstrates how money moves through a society. Please watch the following video which explains in detail this model and how it operates:

https://www.tutor2u.net/economics/reference/circular-flow-of-income-and-spending

Video is 8:45, however, the first 5:30 are the most critical. As you will see, he is British, which explains why you see the symbol for the British Pound, versus the US Dollar on the chart below!



Economic Goals and Indicators

An important question that is continually asked is how the economy is doing. There are a number of different statistics people look at in order to answer this question which are broken down into two groups:

- 1) Leading indicators: have the potential to forecast where an economy is headed,
 - Stock Market, manufacturing activity, inventory levels, retail sales, building permits, housing markets, new business startups
- 2) <u>Lagging indicators</u>: do not typically tell us where the economy is headed, they indicate how the economy changes over time and can help identify long-term trends.
 - Changes in Gross Domestic Product, Income and Wages, Unemployment Rate, Consumer Price Index (Inflations), Consumer Price Index (Inflation), Interest Rates, Exchange Rate, Corporate Profits, Balance of Trade

While there are many indicators, most focus on the economic indicators that relate to three key economic goals.

The three Key Economic Goals are:

- 1) High and sustained economic growth economic growth means wealth is being created
- 2) Low unemployment more people working, the more economic growth as well as personal health and happiness
- 3) Price stability stable prices promote savings/investment and protects against the harm and turmoil of deflation and inflation.

The Economic Indicators that Relate to these Key Economic Indicators are:

- 1) Gross Domestic Product (GDP)
 - a. Changes in GDP show whether the economy is growing or slowing
 - b. Commonly used to gauge a country's standard of living
- 2) Unemployment
 - a. Unemployment measures the number of people who are able & willing but cannot find work.
 - b. Shows whether the economy is picking up or slowing down
 - c. measures the unemployment levels of those seeking work
- 3) Consumer Price Index/Inflation
 - a. Inflation is a general increase in the price of goods & services.
 - b. Consumers' buying power decreases because it costs more for something today than it did yesterday.
 - c. Indicates that the cost of living is getting more expensive!
 - d. ***What does that mean? www.usinflationcalculator.com Fun Website if time***

Gross Domestic Product

GDP is the market value of all final goods and services produced in a country during a given period of time. If you read articles or hear reports on the state of the economy, you will most likely here both inflation and unemployment mentioned. However, you will almost assuredly here GDP mentioned. When we have <u>two</u> consecutive quarters (i.e., a 3-month period) of a declining GDP (i.e., a negative number), we are considered to be in a recession.

GDP is measured using the following formula: C+I+G+NX=GDP

<u>C= Household Consumption</u>- goods and services bought by people in households for personal use. It ranges from food and fuel to movie tickets and medical care.

<u>I= Business Investment</u>- business invest in capital goods such as buildings and machinery. It also includes goods produced but not yet sold.

<u>**G**= Government Purchases</u>- Federal, state and local governments purchases of goods and services.

<u>NX= Net exports</u>- this is the value of all exports minus all imports. *Subtracting imports because it takes money out of our country

Please take a couple of moments to look at the formula for GDP and see how it relates to the circular flow model we studied earlier in this lesson.



Summary Questions

1.	Provide an example of each of these factors of production: a) Land: b) Labor:
	b) Labor:
	c) Capitai.
	d) Entrepreneurship:
2.	Which factor of production is money?
3.	What are the economic indicators used to measure: a) High and sustained economic growth: b) Low unemployment:
	c) Price stability:
4.	Consider the formulate for GDP. $C+I+G+NX=GDP$. What do the letters stand for: a) C: b) I: c) G: d) NX:
5.	How many consecutive quarters of declining GDP does it take to be in a recession?
5.	What is the relationship between the circular flow model and the formula for GDP?



<u>Tuesday, May 12, Wednesday, May 13, and Thursday, May 14 – Fiscal and Monetary Policy</u>

Objective:

Fiscal Policy: (1) Identify types of taxes at the local, state, and national levels; (2) analyze the categories of revenues and expenditures in the U.S. federal budget; and (3) analyze the impact of fiscal policy decisions on the economy.

Monetary Policy: (1) Analyze the basic tools used to implement U.S. monetary policy, (2) explain how the actions of the Federal Reserve System affect the nation's money supply and influence the economy

Student Expectations: Watch the videos, annotate the reading and answer the questions.

Introduction to Lesson

Today we begin a look at the ways the government influences a nations' economy. Starting in the 20th Century, there has been a debate between those wanting government intervention in the economy (John Maynard Keynes) those wanting to allow the free market to work (FA Hayek). As seen by the US's response to the Great Depression of the 1930s, the Great Recession of 2008-09, and the current Pandemic, government intervention in the economy has been the policy choice of elected officials. However, the debate still goes on. Moreover, Keynes' actual beliefs have been greatly distorted to justify much great intervention in the economy then he would support. If fact, there is a story that in 1944, Keynes returned from a meeting of Keynesian economists in the US and stated, "I was the only non-Keynesian there."

The government influences the economy through fiscal policy, monetary policy, regulatory policy and trade policy. We have previously looked at international trade and how the government uses tariffs and quotas, so we will be focusing on the first three this week. Fiscal policy refers to how the government uses spending and taxes to influence the nation's economy. Monetary policy refers to how the government uses the money supply and interest rates to influence the nation's economy.

<u>Pacing:</u> These lessons are spread out over three days to allow you to explore some concepts more in-depth if you so choose. Generally speaking, you should break down the work as follows:

Tuesday: Watch my video, read taxes/spending, spend time exploring www.usdebtclock.org, and read through Implementing Fiscal Policy.

Wednesday: Review Implementing Fiscal Policy, answer questions, watch the video on monetary policy and read What is Monetary Policy?

Thursday: Read Implementing Monetary Policy and Answer Questions

Taxes:

The primary purpose of taxes is the serves as the means by which the government raises money. However, taxes can also be used to influence people's behavior.

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Taxes can generally be broken down into to two categories:

- (1) <u>Federal Taxes.</u> The major types of federal taxes are Personal Income, Corporate Income, and Payroll (i.e., Social Security/Medicare)
- (2) <u>State/Local Taxes.</u> The major types of state/local taxes are Personal Income, Corporate Income, Sales and Property

While taxes are vital to securing needed government resources, taxes change behavior and, as we have studied, sometimes have unintended consequences, such as:

- People will opt out of the workforce or other taxable productive work
- People/Businesses look towards tax-shelter investments and other forms of tax avoidance
 - O States who raise incomes/property taxes on wealthy residents actually lose tax revenue since those wealth residents move!

Spending

The US Government has a wide range of expenditures. However, four items count for the vast majority of government expenditures:

- (1) Health Care
- (2) Social Security
- (3) National Defense
- (4) Interest Payment on the National Debt
 - a. Note, the National Deficit is difference between revenue and spending during a fiscal year...the National Debt is the total amount of money owed

Current Spending and Taxes

Γo answer the following questions, go to www.usdebtclock.org	
(you can round to the nearest trillion or hundred million!)	
(1) What is the current national debt:	
(2) What is the current national deficit (i.e., budget deficit):	
(3) What are the costs of the four largest budget times,	
a. Health Care:	
b. Social Security:	
c. National Defense:	
d. Interest Payment on the National Debt:	

Please feel free to explore some other the numbers/categories. Note, there are also States and World Debt clocks as well.

How big is a trillion?

- One trillion seconds is over 31 thousand years.
- One trillion pennies stacked on top of each other would make a tower about 870,000 miles high the same distance obtained by going to the moon, back to Earth, then to the moon again.
- If you earn \$56,000 a year (average salary in US), it would take 17,857,000 years to amass a fortune of one trillion dollars.
- One trillion dollars divided evenly among the U.S. population would mean that everyone in the United States would receive a little over \$3,000.

^{***}Here is a visual if you want one http://www.pagetutor.com/trillion/index.html***



Implementing Fiscal Policy

Fiscal policy is often referred to as Keynesian economics which focuses on aggregate demand. Aggregate demand is the total demand for goods and services. Recall Monday's lesson on the circular flow model and GDP!

Using fiscal policy, aggregate demand can be influenced by the following:

- 1) Household Consumption through Income Tax
- 2) Business Investment through Business Tax
- 3) Government Purchases through Government Spending (purchases are not transfer payments!)

So, when policy makers believe the economy is lagging and you want to engage in **expansionary fiscal policy** by increasing employment and protecting against deflation, you can

- 1) Increase household consumption by raising disposable income through income tax cuts
- 2) Increase investments by raising after-tax corporate profits through business tax cuts
- 3) Increase government purchases through increased spending by the federal government

Conversely, when policy makers believe the economy is overheating and you want to engage in **contractionary fiscal policy** by protecting against inflation, you can

- 1) Decrease household consumption by lowering disposable income through income tax increases
- 2) Decrease investments by lowering after-tax corporate profits through business tax increases
- 3) Decrease government purchases through decreased spending by the federal government

As indicated previously, using fiscal policy to influence the economy a number of challenges or potential negative impacts:

- 1) It may require significant spending and thus creates large deficits. This may result in
 - a) Increased taxes (eventually!) to pay off the debt which will slow down future growth
 - b) Taking resources from other government priorities
 - c) Greater borrowing to finance debt increases interest rates for everyone
 - d) Significant inflation in the future when government needs to print money to pay off debt
- 2) There is a huge time lag between recognizing issue...designing legislation...and implementing the fiscal policy. By the time the impact of the legislation is felt, the economic conditions have likely changed.
 - a) Additionally, there is the knowledge problem (Hayek) can government officials ever possess the knowledge needed to best be able to target changes in tax rates and spending?
- 3) Changes in taxes/government spending is temporary, which means tax rate and amount of government spending will change again. This impacts people's behavior due to the uncertainty it creates
 - a) Remember, people act out of self-interest/respond to incentives
- 4) Discretionary fiscal policy counters political realities
 - a) For political reasons leaders do not want to trim expenses in bad economic times and want to increase spending during good economic times
 - b) Also, Republicans typically prefer tax cuts while Democrats prefer spending increases.



Summary Questions		
1. What are the four biggest expenditures in the federal budget?		
2. Name a tax that is only imposed at the state/local level, and not at the federal level:		
3. How big is our current national debt?		
4. What is the difference between contractionary fiscal policy and expansionary fiscal policy? State specifically what happens to business taxes, personal taxes and government spending in each situation.		
5. List two challenges/problems of using fiscal policy to influence the economy.		

Video: How the Federal Reserve Worked: Before the Great Recession (5:44) https://www.youtube.com/watch?v=jheesQ8ot3g

Note as a result of the Great Recession, the Federal Reserve starting using, and arguably creating, other tools that is have never used before. We simply do not have time to review that change, but if you are interested simply search for "What is Quantitative Easing."



What is Monetary Policy?

(The article below which is taken from https://www.businessnewsdaily.com/15530-what-ismonetary-policy.html)

A major factor in a nation's economy is its monetary policy, which determines the amount of money flowing through the economy.

Set by the Federal Reserve in the United States, monetary policy influences economic activity by controlling the country's money supply and credit. The Federal Reserve can control monetary policy by altering rates of interest and changing the amount of money banks must have in their reserves. The Federal Reserve Act of 1913 officially gave the Federal Reserve the power over the country's monetary policy. Since then, the importance of monetary policy has increased tremendously.

The goals of monetary policy, as stated in the Federal Reserve Act of 1913, are to encourage maximum employment, stabilize prices and moderate long-term interest rates. When implemented correctly, monetary policy stabilizes prices and wages, which, in turn, leads to an increase in jobs and long-term economic growth. U.S. monetary policy plays a significant role in not just the economy as a whole but also specific decisions consumers make, such as buying a home or a car, starting and expanding a business, and investing money.

The Board of Governors of the Federal Reserve System and the Federal Open Market Committee (FOMC) determine monetary policy. The key to setting monetary policy is finding the perfect balance; letting the money supply grow too rapidly increases inflation, and allowing it to grow too slowly stunts economic growth. A common misperception about monetary policy is that it is the same as fiscal policy. While both can be used to influence the economy, the federal government, as opposed to a central bank like the Federal Reserve, sets fiscal policy. Fiscal policy refers to the tax and spending policies of the federal government.

Types of monetary policy

There are two main types of monetary policy:

- Contractionary monetary policy. This type of policy is used to decrease the amount of money circulating throughout the economy. It is most often achieved by actions such as selling government bonds, raising interest rates and increasing the reserve requirements for banks. This method is used when the government wants to avoid inflation.
- Expansionary monetary policy. The purpose of this type of monetary policy is to increase the money supply within the economy by completing actions such as decreasing interest rates, lowering reserve requirements for banks and purchasing government securities by central banks. This type of monetary policy helps to lower unemployment rates as well as stimulate business activities and consumer spending. The overall goal of this policy is to fuel economic growth. Nevertheless, it can also have an adverse effect, occasionally leading to hyperinflation.



Tools of monetary policy

When setting monetary policy, the Federal Reserve has several tools at its disposal, including open market operations, the discount rate and reserve requirements. The FOMC, which comprises members of the Board of Governors of the Federal Reserve System and five Reserve Bank presidents, is responsible for open market operations, while the board of governors sets the discount rates and reserve requirements.

Open-market operations, the most flexible and commonly used way of implementing monetary policy, revolve around the buying and selling of government securities on the open market. Open-market operations expand or contract the amount of money in the U.S banking system. Adjusting the amount of money in the banking system alters the federal funds rate, which is how much it costs banks to borrow money from each other. A low federal funds rate stimulates the economy by encouraging consumer spending through lower interest rates, while a high federal funds rate slows the economy by raising interest rates and discouraging consumers from spending. Changes in the federal funds rate can affect a wide range of economic conditions, including both short- and long-term interest rates and foreign exchange rates.

Another tool the Federal Reserve uses in setting monetary policy is raising and lowering the discount rate, which is the rate the Federal Reserve Bank charges other banks to borrow money on a short-term basis. Higher discount rates signify a more restrictive policy, while lower rates signal a more expansive policy.

The third tool used is the reserve requirement, which is the amount of cash all commercial banks, savings banks, savings and loans, credit unions, and U.S. branches and agencies of foreign banks must have on hand or as reserve account balances at a Reserve Bank.

What are the three objectives of monetary policy?

No matter what type of monetary policy is being used, it is always connected to one of the following three objectives:

- Manage inflation. Most economists consider this the one true objective of monetary policy. In general, low inflation is most conducive to a healthy, thriving economy. Therefore, when inflation is on the rise, the Federal Reserve may adjust monetary policy to reduce inflation.
- Reduce unemployment. During depressions and recessions, unemployment rates tend to soar. However, monetary policies also play a major role in unemployment rates. Once inflation issues have been addressed, expansionary policies can then be implemented to help reduce unemployment rates. This works because the increase in the money supply helps to stimulate the business sector, which also helps to create more jobs. While there may be no way to fully achieve true full employment, the goal is to reduce the rate of unemployment among those who are ready and willing to work for the existing wages.
- Balance currency exchange rates. Given that stable exchange rates play such a major role in international trade, it's essential to find ways to keep them balanced. Central banks have the power to regulate exchange rates between foreign and domestic currencies. For instance,

if the central bank opts to issue more currency to increase the money supply, domestic currencies become cheaper than foreign currencies.

Implementing Monetary Policy

Much like Fiscal Policy, the goal of Monetary Policy is to influence aggregate demand. Similarly, as mentioned in the article above, there are both contractionary and expansionary monetary policy. The figure below gives an overview of both. "M" – Money Supply; "r" – Interest Rate; "I" – Investment; "C" – Consumption; "P" – Price Level. Note, how "C" and "I" are the same "C" and "I" from the GDP formula.

The key is that if interest rates are low, people will borrow more and consume more, while businesses will borrow more to invest in the growth of their business. Conversely, if interest rates are higher, people will borrow less and consume less, while businesses will borrow less and thus refrain from investing as much in the growth of their business.

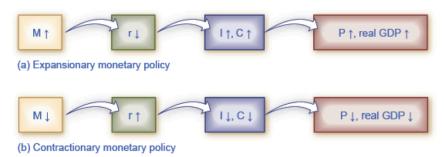


Figure 14.9 The Pathways of Monetary Policy (a) In expansionary monetary policy, the central bank causes the supply of money and loanable funds to increase, which lowers the interest rate, stimulating additional borrowing for investment and consumption and shifting aggregate demand right. The result is a higher price level and, at least in the short run, higher real GDP. (b) In contractionary monetary policy, the central bank causes the supply of money and credit in the economy to decrease, which raises the interest rate, discouraging borrowing for investment and consumption and shifting aggregate demand left. The result is a lower price level and, at least in the short run, lower real GDP.

Similar to fiscal policy, using monetary policy to influence the economy a number of challenges or potential negative impacts:

- 1) There is a huge time lag between recognizing issue...implementing the changes to money supply/interest rates...and the effects. Some estimate 1-3 years! By the time the impact of the changes is felt, the economic conditions have likely changed.
- 2) Even though you increase the money supply, you cannot force banks or other lending institutions to lend that money.
- 3) Controversy over economic goals. Like fiscal policy, there are significant debates over the impact of changing the money supply and what actions work best both in the short-term and long-term.



Summary Questions

1. Who is in charge of monetary policy in the United States?	
2. What is the most commonly used monetary policy tool?	
3. What are the three objectives of monetary policy?	
4. What is the difference between contractionary monetary policy and contractionary fiscal policy? State specifically what happens to the money supply, interest rates, personal consumption, business investment and GDP	
5. List two challenges/problems of using monetary policy to influence the economy.	



Friday, May 15 – Regulatory Policy

Explain why regulations are needed but how their continued growth has negatively influenced the economy

Student Expectations: Read below and ***Take Quiz on page 15-16***

Role of Regulations

Regulations are an important part of an economy. If all people were just, or at least able to determine a just price, as Thomas Aquinas wrote, then perhaps they would not be necessary. There are a number of reasons why people argue for regulations, but one of the more widely accepted reasons for regulations it to help protect against "market failure." There are three commonly cited market failures:

- 1) Negative Externalities A negative externality is the uncompensated impact of one person's actions on the well-being of the bystander. The most common example of a negative externality is pollution. For example, if a factory is polluting the river, the people who are impacted by the pollution are obviously harmed. However, the factory bears no direct cost of that pollution nor is the cost of that harm included in the price of a product. An environmental regulation is aimed at either stopping/limiting the pollution or, at the very least, compensating the victim of the pollution, while at the same time imposing a cost on the factory for polluting, something that is passed along to the consumer by the increased price of the product. Note, there are also positive externalities--such as the pollination of surrounding crops by bees kept for honey.
- 2) Information Asymmetry A free market works best when there is perfect knowledge. However, this perfect knowledge is difficult to obtain and, more problematically, one side of the transaction can take active steps to prevent knowledge of their product from being disclosed. To prevent this, regulation is needed to ensure that relevant information is passed along to the consumer. Examples include Truth in Lending Laws or Warning and Nutrition Labels on Goods.
- 3) Monopolies/Oligopolies Many argue that regulations are needed to prevent monopolies and oligopolies. This, however, is more controversial. Arguably, it is regulations that often allow monopolies and oligopolies to form because regulations prevent innovation and coemption.

Outside market failure, a large number of regulations are considered necessary for "health and safety." However, much like an expansive definition of "national security" has been used by many to justify trade restrictions, so has an expansive definition of "health and safety."

Concluding Thought

It is important to stress that regulations are important, we need them. However, there has been an explosion of regulations since 1950. These regulations are often implemented at the request of, or in coordination with, the existing businesses and industries themselves. Why? Regulations often limit competition and make it more difficult, or costly, for new businesses to enter an industry. Consider for a moment the rise of ride sharing companies such as Uber and Lyft. It was the existing Taxi companies who were lobbying for new regulations in response; the consumers who benefitted from this competition did not. Regulations are needed. However, we need to honestly weigh the costs and benefits of these regulations and the trade-offs involved.



Quiz – Week of May 11 (Complete without looking at your notes or packet!)

(A) Gross Domestic Product(B) Inflation/Consumer Price Index
(C) Unemployment Rate (D) Interest Rate
2) Note below which of the taxes are imposed at the Federal Level (F), State Level (S) or Both B):
IncomeBusiness/CorporatePayrollProperty
B) How much is the current national debt?
Which of the following is NOT one of the top four expenses of the US Government?
 (A) Education (B) National Defense (C) Medicare (D) Interest of the National Debt (E) Social Security
The theory behind expansionary Keynesian fiscal policy is when the economy is in or facing a recession, the government can aggregate demand by increasing government pending and/or reducing business/personal taxes. Conversely, the theory behind contractionary Keynesian fiscal policy is when the economy is facing or experiencing high inflation the government can aggregate demand by decreasing spending and/or increasing business/personal taxes.
(A) IncreaseIncrease(B) DecreaseDecrease(C) IncreaseDecrease(D) DecreaseIncrease
b) List one challenges/problems to implementing Keynesian Fiscal Policy:





7) What do the letters in the chart above stand for? (Fill in each blank)

M =

 $\mathbf{r} =$

I =

C = ____

P = ____

GDP = ____

8) What type of monetary policy does the above chart represent?

- (A) Expansionary
- (B) Contractionary

9) Give an example of a negative externality?_____

- 10) The number of regulations has greatly increased since 1950:
 - (A) True
 - (B) False