



Sample: Macroeconomics - Economics Assignment

Homework Assignment Chapter 17

1. *Would a monetary policy intended to bring about disinflation cause a greater increase in unemployment if workers and firms have adaptive expectations or if they have rational expectations. Briefly explain.*

A monetary policy intended to bring about disinflation would cause a greater increase in unemployment if workers and firms have adaptive expectations instead of rational expectations. With adaptive expectations, there is a temporary increase in the real wage and thus unemployment. With rational expectations, there is no temporary change in the real wage and so the adjustment to the new equilibrium is instantaneous.

2. *Why is the credibility of the Fed's policy announcements particularly important?*

The Fed's credibility is obviously important. If people believe that they can and will do what they say they're going to do they can affect the real economy at least short-term by just making promises - Open Mouth Operations. Also, the credibility of policy announcements is important for the effectiveness of monetary policy because a more credible policy allows the Fed to have a greater impact on the expected inflation rate. In particular, a credible policy of disinflation will cause the short-run Phillips curve to shift down more rapidly than if the policy is less credible, thereby making the increase in the unemployment rate smaller and briefer.

3. *Why do workers, firms, banks and investors in financial markets care about the future rate of inflation?*

In economics, inflation is a rise in the general level of prices of goods and services in an economy over a period of time. When the general price level rises, each unit of currency buys fewer goods and services. Also, it leads to the decline in real interest rates. All this is disadvantageous for workers, firms, banks and investors. So, all the market participants do care about the future rate of inflation.

4. *What does it mean: "Workers and firms have rational expectations?"*

Rational expectations is a hypothesis in economics which states that agents' predictions of the future value of economically relevant variables are not systematically wrong in that all errors are random. Equivalently, this is to say that agents' expectations equal true statistical expected values. We can also say that workers' and firms' rational expectations are as correct as possible with available information.

5. *Why do most economists agree that it is important to have a country's central bank to be independent of the country's central government?*

The Central Bank plays a leading role in the economic system. Ensuring the stability of the currency and maintaining the stability of the banking system, it promotes sustainable economic development. And only an independent central bank has a real opportunity to set long-term monetary goals and gradually achieve them, because the government may be interested in using inflation to lower unemployment, gaining additional tax incomes, increasing social consumption using money issue etc.



Homework Assignment Chapter 16

1. Why does \$1.00 increase in government purchases lead to more than \$1.00 increase in income and spending?

A \$1 increase in government purchases initially increases real GDP and income by \$1. The \$1 increase in income increases consumption spending by, say, \$0.50. The \$0.50 increase in consumption spending increases income, which increases consumption spending again. The process continues as increases in income lead to increases in consumption spending, which lead to increases in income, which lead to increases in consumption spending, and on and on. This process is referred to as the multiplier effect.

2. Define the “government purchases multiplier” and “tax multiplier.”

The government purchases multiplier is the ratio of the change in equilibrium real GDP to the change in government purchases. The tax multiplier is the ratio of the change in equilibrium real GDP to the change in taxes.

3. Some economists argue that because increases in government spending crowd out private spending, increased government spending will reduce the long-run growth rate of real GDP.

a. Is this most likely to happen if the private spending being crowded out is consumption spending, investment spending, or net exports? Briefly explain.

b. In terms of its effect on the long-run growth rate of real GDP, would it matter if the additional government spending involves i) increased spending on highways and bridges or ii) increased spending on national parks? Briefly explain.

a. This is most likely to happen if the private spending being crowded out is investment spending, because accumulating more machinery, equipment, and structures is necessary for economic growth.

b. Increased spending on highways and bridges may aid economic growth, whereas increased spending on national parks is unlikely to.

4. Why does an estimate of the size of the multiplier matter in evaluating the effects of an expansionary fiscal policy?

An estimate of the size of the multiplier matters in evaluating the effects of an expansionary fiscal policy because the larger the multiplier, the greater the effects of an expansionary fiscal policy

5. What is the term used for a falling price level?

The term is “deflation”. Deflation is a general decline in prices, often caused by a reduction in the supply of money or credit. Deflation can also be caused by a decrease in government, personal or investment spending. The opposite of inflation, deflation has the side effect of increased unemployment since there is a lower level of demand in the economy, which can lead to an economic depression.



Homework Assignment Chapter 15

1,2. How does an increase in interest rates affect aggregate demand? Briefly discuss how each component of aggregate demand is affected.

Aggregate demand consists of four components: private spending on consumption (C), investments (I), government spending on goods and services, wages (G) and net exports (NE), which is the difference between expenditure of the foreigners on domestic goods and services (exports) and domestic spending on foreign goods (imports). So we can write an equation:

$$AD = C + I + G + NE$$

The interest rate is actually the price of borrowing which can also be the price of investment, because often people borrow to invest. So, when interest rates increases, investment decreases. A higher interest rate can also lower consumption too, which might actually affect all components of GDP. Hence, an increase in interest rates leads to decrease in aggregate demand.

3. If the Fed believes the economy is about to fall into recession, what actions should it take?

The monetary policy is a set of government measures to regulate the money supply in circulation. The Central Bank regulates interest rates for commercial bank loans. Reducing these rates during the recession and depression leads to increase in business profits, and therefore stimulates the economic growth.

4. If the Fed believes the inflation rate is about to increase, what actions should it take?

In such a situation the Fed have to increase the discount rate and make banks reserve more to limit their ability to lend. All this will lead to reduction in the rate of inflation.

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Homework Assignment Chapter 14

1. Briefly explain the difference between commodity money and fiat money.

Commodity money is money whose value comes from a commodity of which it is made. It's a good used as money that also has value independent of its use as money. Fiat money is a currency that a government has declared to be legal tender, despite the fact that it has no intrinsic value and is not backed by reserves. Historically, most currencies were based on physical commodities such as gold or silver, but fiat money is based solely on faith.

2. What are the four functions of money?

- a. medium of exchange
- b. unit of account
- c. store of value
- d. standard of deferred payment

3. Can something be considered money if it does not fulfill all four of these functions? Why or why not?

In the long run, something will not serve as money if it does not fulfill all four functions. Because only performing all four function money can fully serve the economy.

4. What is the main difference between M1 and M2 definitions of the money supply?

M1 is the sum of currency in circulation, checking account balances in banks, and holdings of traveler's checks. M1 includes currency, travelers checks, and checking account deposits. It also includes those checking accounts that pay interest, even though many people use them as savings accounts.

M2 includes everything in M1 plus savings accounts, time deposit and money market mutual funds.

5. Why does the Federal Reserve use two definitions of the money supply rather than one?

The Federal Reserve use two definitions of the money supply because it provides more effective regulation of the money supply and helps to determine its structure.

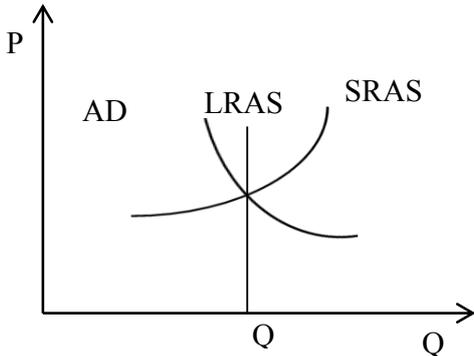


Homework Assignment Chapter 13

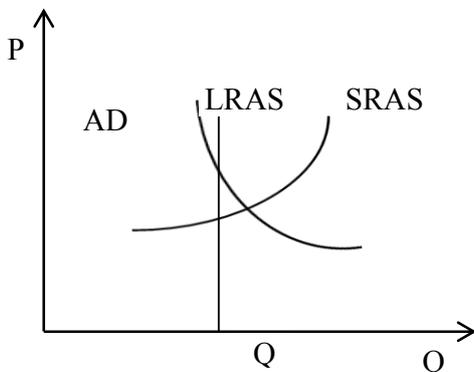
1. Explain the relationship between AD, SRAS, and LRAS curves when the economy is in the long-run macroeconomic equilibrium.

There are three options:

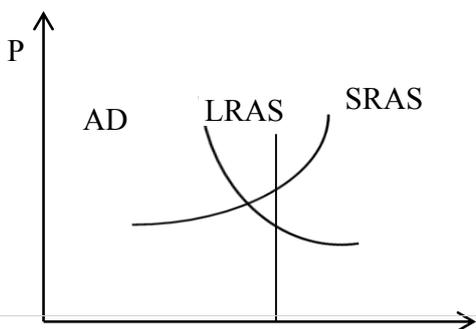
- The interception point of AD and SRAS may be on the LRAS. In this situation unemployment rate during the current period will be equal to the natural rate of unemployment and the current rate of GDP will be sustainable.



- An above full employment equilibrium is an equilibrium in which real GDP exceeds potential GDP. The amount by which real GDP exceeds potential GDP is called an inflationary gap. At the same time: Unemployment rate < natural rate of unemployment. Since job seekers are less than job openings in the market, employers are forced to raise the wage to attract new workers. High wage will decrease the SRAS, and raise the price. Higher price will lower consumption. This process will repeat until the long run equilibrium is reached. So, the current rate of GDP won't be sustainable.



- A below full employment equilibrium is an equilibrium in which potential GDP exceeds real GDP. The amount by which potential GDP exceeds real GDP is called a recessionary gap. At the same time: Unemployment rate > natural rate of unemployment. Since more job seekers are in the market, they tend to settle with a lower wage. Lower wage will increase the SRAS curve, causing the price to decrease. Lower price will increase consumption. This process will continue until the economy reaches the long run equilibrium (potential real GDP). So, the current rate of GDP won't be sustainable.





2. Consider the data:

Year	Actual Real GDP	Potential GDP	Unemployment Rate
1969	\$4.26 trillion	\$4.19 trillion	3.5%
1970	\$4.27 trillion	\$4.34 trillion	4.9%

a. ***In 1969, actual real GDP was greater than potential real GDP. Explain how this is possible.***

If firms operate beyond their normal capacity and structural and frictional unemployment drop below their normal levels, then actual real GDP can be above potential real GDP.

b. ***Even though real GDP in 1970 was slightly greater than real GDP in 1969, the unemployment rate increased substantially from 1969 to 1970. Why did this increase in unemployment occur?***

The unemployment rate increased from 1969 to 1970 because the increase in actual real GDP was not as large as the increase in potential real GDP.

c. ***Was the inflation rate in 1970 likely to have been higher or lower than the inflation rate in 1969? Does your answer depend on whether the recession that began December 1969 was caused by a change in a component of aggregate demand or by a supply shock?***

If the recession was caused by a shift in aggregate demand (which, in fact, it was), the inflation rate is likely to have been lower in 1970 than in 1969. If the recession was caused by a shift in aggregate supply, the inflation rate was likely to have been higher.



Homework Assignment Chapter 12

1. *Explain the Consumption function.*

In economics, the consumption function is a single mathematical function used to express consumer spending. It was developed by John Maynard Keynes and detailed most famously in his book *The General Theory of Employment, Interest, and Money*. The function is used to calculate the amount of total consumption in an economy. This function can be written:

$$C = a + b*(Y - T)$$

where C - the value of consumption,

a - autonomous consumption,

b - marginal propensity to consume,

Y - income,

T - tax deduction.

2. *What is the Marginal Propensity to Consume?*

Marginal Propensity to Consume is an economic term for the amount that consumption changes in response to an incremental change in disposable income. It is equal to the change in consumption divided by the change in disposable income that produced the consumption change.

3. *What is the Marginal Propensity to Save?*

Marginal Propensity to Save represents the proportion of an aggregate raise in pay that is spent on the consumption of goods and services, as opposed to being saved.

4. *Suppose Apple plans to produce 20.2 million iPhones this year. The company expects to sell 20.1 million and add 100,000 to the inventories in its stores.*

a. *Suppose at the end of the year, Apple has sold 19.9 million iPhones. What was Apple's planned investment? What was Apple's actual investment?*

Planned investment refers to the additions to capital stock and inventory that are planned by firms.

Actual investment is the actual amount of investment that takes place; it includes items such as unplanned changes in inventories.

Planned investment = 100,000

Actual investment = production – sales = 20.2 million -19.9 million = 300,000

b. *Suppose at the end of the year, Apple has sold 20.3 million iPhones. What was Apple's planned investment? What was Apple's actual investment?*

Planned investment = 100,000

Actual investment = 20.2 million-20.3 million= - 100,000. So, there will be no inventories in its stores



Homework Assignment Chapter 11

1. Describe the record of productivity growth in the United States from 1800 to present.

The best period for GDP growth was the production boom between 1995 and 2005. Real GDP has increased over sixfold since 1950, and real per capita GDP has risen over threefold. Rate of growth record shows that real GDP has grown about 3.4 percent per year since 1950 and real GDP per capita has grown about 2.1 percent per year.

a. What explains the slowdown in productivity growth from the mid-1970's to the mid 1990's?

Leading explanations for the productivity slowdown of the mid-1970s to the mid-1990s are: a) measurement problems, b) high oil prices, and c) a decline in labor quality. Because all high-income economies began to produce more services and fewer goods and enacted environmental regulation at the same time, explanations of the productivity slowdown that emphasize measurement problems become more plausible. However, economists have not reached a consensus on why the productivity slowdown took place.

b. Why did productivity growth increase beginning in 1995?

From 1995 to 2008, productivity growth was significantly higher in the United States. Many economists believe there are two main explanations: a) the greater flexibility of U.S. labor markets, and b) the greater efficiency of the U.S. financial system.

2. Which of the following will result in a movement along China's per-worker production function, and which will result in a shift of China's per-worker production function? Briefly explain.

a. Capital per hour worked increases from 5 million Yuan per hour worked to 6 million Yuan per hour worked.

b. The Chinese government doubles its spending on support for university research.

c. A reform of the Chinese school system results in more highly trained Chinese workers.

The production function is used to relate how inputs produce goods and services. We can write a simple aggregate production function as:

$$Y = AF(K, L)$$

We can single out two kinds of changes that improve worker productivity:

1. an increase in the quantity of capital per worker, as reflected by a movement along the per-worker production function;

2. an improvement in the quality of capital per worker, as reflected by technological change that rotates the curve upward.

So, an increase in capital per hour worked will lead to a movement along the per-worker production function, and a reform of the Chinese school system and improvement in university research will lead to an improvement in the quality of capital and therefore to a shift of China's per-worker production function.



Homework Assignment Chapter 10

1. What is the rule of 70? If real GDP per capita grows at a rate of 7 percent per year, how many years will it take to double?

The rule of 70 is a way to estimate the number of years it takes for a certain variable to double. It states that in order to estimate the number of years for a variable to double, take the number 70 and divide it by the growth rate of the variable. This rule is commonly used with an annual compound interest rate to quickly determine how long it would take to double your money.

This rule states that the approximate number of years n for a variable growing at the constant growth rate of R percent, to double is:

$$n = \frac{70}{R} = \frac{70}{7} = 10 \text{ YEARS}$$

So, if real GDP per capita grows is 7 percent per year it will take 10 years to double.

2. Consider the following data for a closed economy:

$Y = \$11$ trillion

$C = \$8$ trillion

$I = \$2$ trillion

$TR = \$1$ trillion

$T = \$3$ trillion

Use this data to calculate the following:

- a. Private saving**
- b. Public saving**
- c. Government purchases**
- d. The Government budget deficit or budget surplus**

The equation for calculating Y in a closed economy is:

$$Y = C + I + G$$

Components of GDP (Y) by expenditure in a closed economy:

$Y = \text{Consumption Spending} + \text{Investment Spending} + \text{Government Spending (Purchases)}$

$$G = Y - C - I = 11 - 8 - 2 = \$1 \text{ trillion}$$

Total Income = Consumption Spending + Private Savings + Net tax payment

$$Y = C + SP + (T - TR)$$

So, Private saving = $T - C - (T - TR) = 11 - 8 - (3 - 1) = \1 trillion

Public savings = $T - G - TR = 3 - 1 - 1 = \1 trillion

Government budget balance is the difference between tax revenue and government spending, when government spending exceeds tax revenue, the government runs a budget deficit ($SG < 0$), the government deficit is a negative contribution to national savings. When $SG = 0$, government has a balanced budget; when $SG > 0$, the government has a budget surplus.

$$SG = (T - TR) - G$$

$SG = (3 - 1) - 1 = \$1$ trillion - the government has a budget surplus



Final EXAM - Macroeconomics

1. Due to Government Shutdown – the economy is in a dynamic state. What is happening and will happen if the Shutdown continues?

Based on history, here is how a long-term government shutdown might impact:

- Social Security - benefit checks would probably keep coming, but no new applications would be accepted or processed.
- Income Tax - the IRS will probably stop processing paper tax returns and refunds.
- National Defense - all active duty members of all branches of all armed services would continue duty as usual, but might not get paid on time. Justice System: Federal courts should remain open. Criminals will still be chased, caught, prosecuted and thrown in federal prisons, which would still be operating.
- National Parks/Tourism - parks and forests will probably close and visitors told to leave. Visitor and interpretive centers will be closed. Non-volunteer rescue and fire control services might be shut down.
- Health - new patients would not be accepted into clinical research at the National Institutes of Health, but current patients would continue to receive care. Medical research at the NIH would be disrupted and some studies would be delayed.
- Loans - many low-to-moderate incomes borrowers and first-time homebuyers seeking government-insured mortgages could face delays.

2. If we Open the Government back up, what will happen to the debt ceiling and will we be at this same place in February 2014?

If we Open the Government back up, the debt ceiling will be increased. Now the Senate proposed a bill that will keep the government financed only until January and authorize the U.S. Treasury to continue to pay the nation's debts up to February.

3. China is talking about cutting trade with US and other countries to make the Chinese economy better. What will this do to the US economy – list “good and bad” results and give reasons. Be brief.

U.S.- China economic ties have expanded substantially over the past three decades. Total U.S.- China trade rose from \$5 billion in 1981 to \$536 billion in 2012. China is currently the United States' second-largest trading partner, its third-largest export market, and its biggest source of imports. So, the cutting trade with US will lead to decrease in US export. Such a situation entails the need to find new sales markets for U.S. products. But also it will be beneficial for national manufacturers due to decline in China's import. The decrease in import will lead to improving of the competitiveness of U.S. products, but also can stimulate the price raising.