

Lesson 8 - Aggregate Demand and Aggregate Supply

Acknowledgement: Ed Sexton and Kerry Webb were the primary authors of the material contained in this lesson.

Section 1: Aggregate Demand

The second macroeconomic model that we need to explore is known as the **Aggregate Demand/Aggregate Supply Model**. This model is important to us because, unlike in the Aggregate Expenditures Model, we do not hold prices constant. This is a significant flaw of the Aggregate Expenditures Model. As a result, this model is useful in helping us understand the inflationary impacts of various policy options. The supply and demand schedules in macroeconomics differ however, from those in your microeconomics class, in that they relate the aggregate quantity of goods and services supplied and the aggregate quantity of goods and services demanded not to a single price, but to a price level or price index, such as the GDP Deflator.

The **Aggregate Demand curve (AD)** represents, in that sense, an even more appropriate model of aggregate output, because it shows the various amounts of goods and services which domestic consumers (C), businesses (I), the government (G), and foreign buyers (NX) collectively will desire at each possible price level. Such a curve is inversely related to changes in the overall price level existing in the economy. Let's begin by showing the relationship between the aggregate expenditures model and the AD curve.

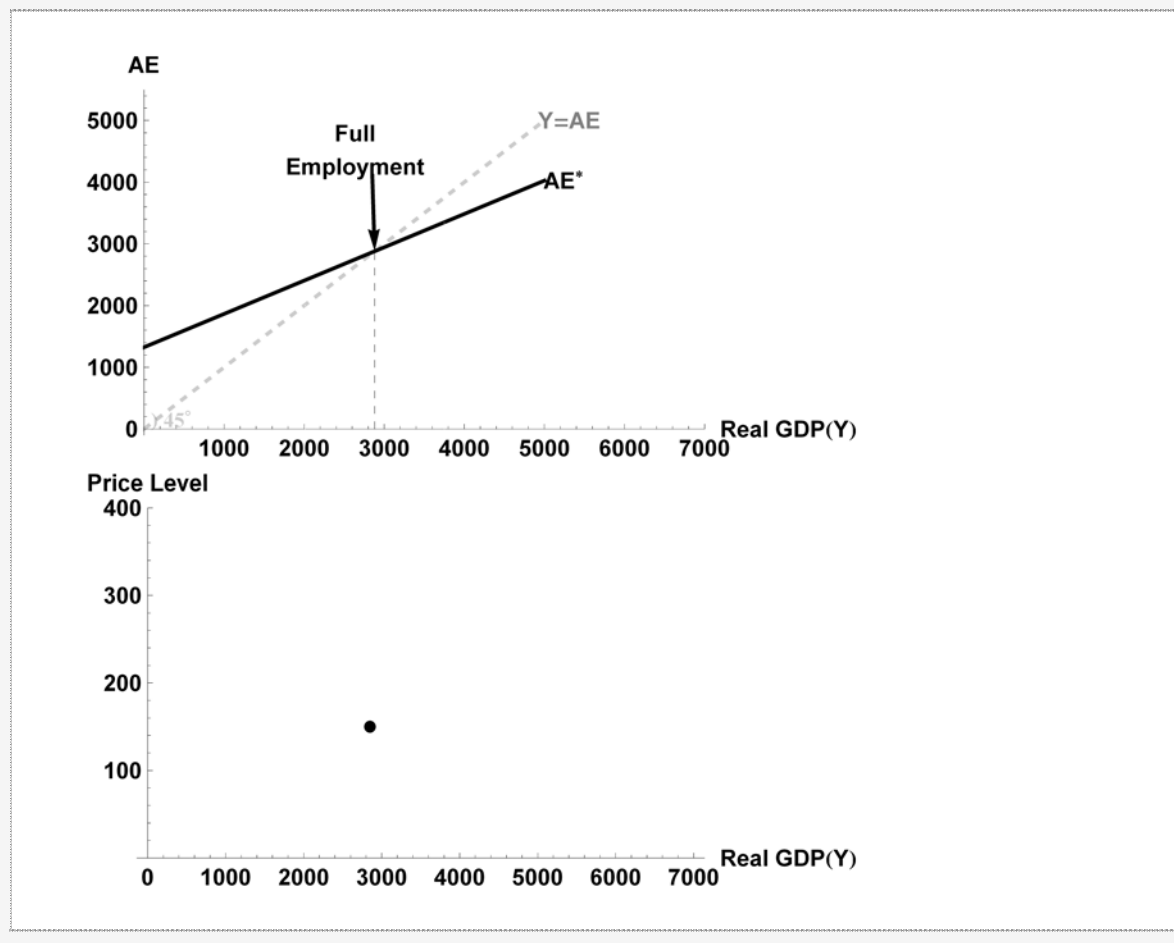
In the graph below, we show the standard aggregate expenditures curve at three different price levels. The graph starts at a position where the economy is at full employment. Notice the dot on the lower graph. It represents the current level of real GDP and current price level. If the price level increases (click on "P.L.↑"), then we have lower real GDP at a higher price level. Notice the second dot that has appeared on the lower graph. The higher prices will lower consumption and result in lower real GDP. If the price level decreases (click on "P.L.↓"), then we have higher real GDP at a lower price level. Notice the third dot and the aggregate demand (AD) curve that has appeared on the lower graph. The lower prices increase consumption and result in higher real GDP.

Deriving the Aggregate Demand Curve from the Aggregate Expenditures Model +

This graph demonstrates the derivation of the aggregate demand curve using the aggregate expenditures model. The graph starts out at full employment. Notice there is a dot in the lower graph for that point. If price level increases (click 'P.L.↑'), notice that AE shifts down and another dot appears. If price level decreases (click 'P.L.↓'), notice that AE shifts up and another dot appears along with the aggregate demand curve.

Changes in Price Level

P.L.↑ P.L.↓



To more fully understand the nature of AD, it is useful to know how changes in economic conditions affect the aggregate demand in the economy. For example, when the general price level falls (rises), certain economic conditions will cause people in the economy to purchase more (less) goods and services. When that happens, it will then result in a movement along the AD curve. However, changes in other types of economic variables will actually cause the AD curve to shift. Policy makers (and economics students!) should know the difference between, and the effects of, movements along the AD curve and shifts of the AD curve. First, we will suggest three different rationales for the downward sloped curve: the real balances effect, the interest rate effect, and the foreign purchases effect.

There are three main economic conditions that are affected by changes in the general price-level, and which lead to an inverse relationship between the general price level and the amount of total goods and services demanded in the economy (i.e., movements along the curve). In common-sense terms, if prices in general go up, people buy less stuff; if prices go down, people buy more stuff. The three conditions are:

The Real Balances Effect (Wealth Effect)

"**Real balances**" refers to the purchase power of a given amount of money in circulation. We make the assumption that at any given point in time, there is a fixed amount of money in circulation. At higher price levels, the money in circulation can purchase fewer items. Think of the simple example of having \$1,000 in circulation and the average price of the goods and services in the economy being \$10. A total of 100 items could be purchased under these conditions. If the average price level were to rise to \$20 per item, then the \$1,000 in circulation would only allow us to purchase 50 items. At higher prices, the money in circulation will spread over fewer goods. When prices fall, the purchasing power of the money in circulation goes up, and people can buy more goods and services. This relationship between prices and the amount of goods and services that can be purchased with a given money supply is called the **real balances effect** or **wealth effect**. It justifies our depiction of the AD curve as a downward sloping curve.

The Interest Rate Effect

The **interest rate effect** explains the impact that the price level has on interest rates, and thus on certain components of AD. When the price level goes up, people need more money to transact their daily purchases. Therefore, higher prices lead to an increase in the demand for money. With a fixed amount of money in circulation, increasing the demand for money will cause the interest rate to go up. Think of how you would behave if you were running a bank and the demand for money increased. You would try to encourage additional people to deposit money into the bank, and at the same time discourage people from coming into the bank to demand money. The way to do both simultaneously would be to increase the interest rate. As interest rates go up, investment demand and certain interest-rate sensitive consumption purchases will fall. Thus, increases in the price level lead to increases in the interest rate, which reduces the demand for both consumption and investment, and thus real output. The interest rate effect is therefore an additional justification for the downward sloping AD curve.

The Foreign Purchases Effect (International Effect)

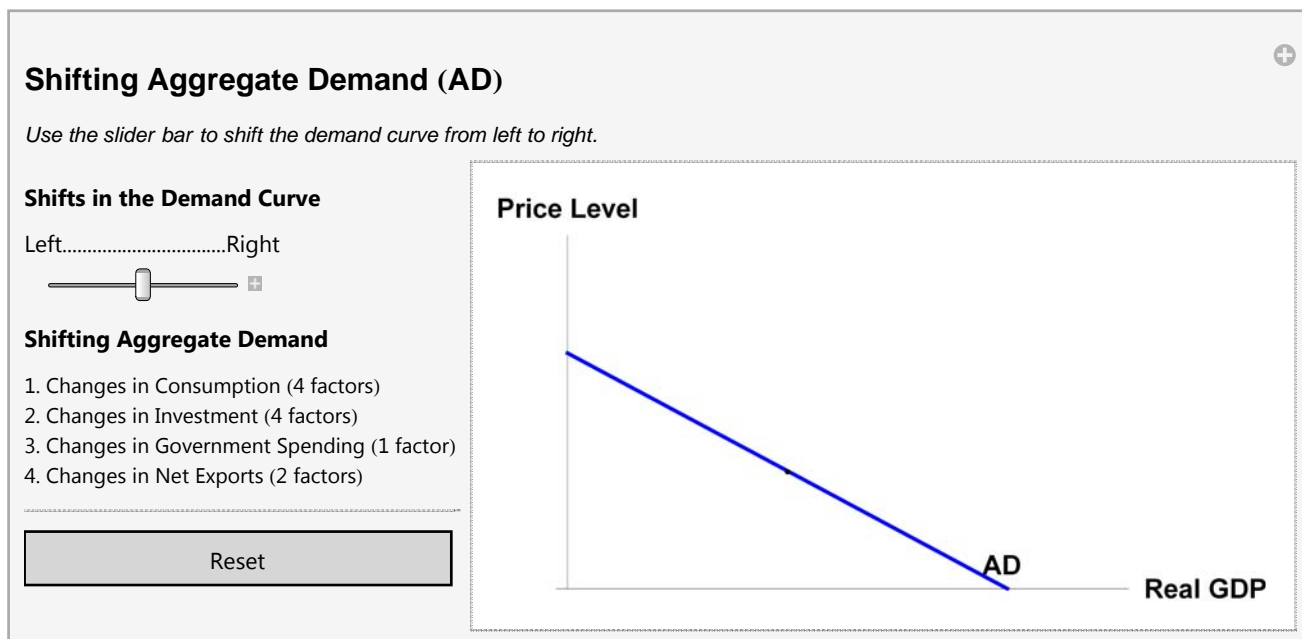
Domestic prices also have an impact on net exports (NX) through what is called the **foreign purchases** or **international effect**. When US prices rise relative to world prices, foreigners buy fewer US goods and Americans buy more foreign goods, so NX fall. Since NX are part of AD, this contributes to an inverse relationship between the price level and the demand for our real domestic output. The opposite is also true. The foreign purchases effect contributes to our argument for why the AD is downward sloping.

Some text books list another effect. This is the **Multiplier Effect** which comes from the Aggregate Expenditure Model. A multiplier effect amplifies the initial changes in expenditures caused by the above three effects.

Anything that changes the price level triggers these three effects and is represented by movement along a given AD curve. There are other factors that influence aggregate demand besides the price level, and these factors are referred to as determinants of AD. When these other factors change, they cause a shift in the entire AD curve and are sometimes called aggregate demand shifters. These aggregate demand shifters include anything that will influence the levels of consumption, investment, government spending, or net exports OTHER THAN changes in the price level. Let's consider each in turn.

Section 2: Aggregate Demand Shifters

The graph below illustrates what a change in a determinant of aggregate demand will do to the position of the aggregate demand curve. As we consider each of the determinants remember that those factors that cause an increase in AD will shift the curve outward and to the right and those factors that cause a decrease in AD will shift the curve inward and to the left. Use the slider to shift the AD curve to the right or left.



Notice that there are four main categories of factors that shift AD to the right and left. These changes in consumption, investment, and net exports are unrelated to changes in the price level. Remember that when there are changes in the price level it causes a movement along the AD curve. Changes in the factors below lead to shifts of the AD curve to the right or left.

Changes in Consumption

There are several factors that could increase or decrease consumption that are unrelated to changes in the price level. For instance, increases in **consumer wealth** would increase consumption at each price level and would be illustrated by a rightward shift in AD. Decreases in consumer wealth would have the opposite effect. Increases in **consumer borrowing** would increase consumption and shift the aggregate demand curve to the right, while decreases in borrowing (or increases in consumers paying off their debt) would have the opposite effect. Increases in **taxes** will decrease consumption (and shift the AD curve to the left) while decreases in taxes will increase consumption and shift the AD curve to the right. Taxes are change by the U.S. Congress or individual State legislatures. **Consumer expectations about the future** of the economy can have a strong impact on consumption. Optimism about the economy will increase consumption and shift the AD curve to the right, while widespread pessimism dampens consumer spending and shifts the AD curve to the left. You can probably think of other factors that will shift the AD curve because they impact consumption independent of the price level.

Changes in Investment

There are several factors unrelated to changes in the price level that could increase or decrease Investment and thereby shift the AD curve. For instance, any change in the **interest rate** not brought about by a change in the price level would change the level of investment in the economy, and shift the AD curve. Increases in the interest rate will reduce investment demand; decreases in the interest rate will increase investment demand. The interest rate can be influenced by monetary policy by the Federal Reserve. **Business taxes** can be structured to either encourage investment (shifting the AD to the right) or discourage investment (shifting AD to the left). Taxes are change by the U.S. Congress or individual State legislatures. **Technological improvements** in an industry might make old equipment obsolete and stimulate investment, shifting AD to the right. Finally, like the impact of expectations on consumers, optimism (or pessimism) on the part of business owners (**expectations of businesses**) can lead to increases (or decreases) in investment activity and shift the AD curve to the right (or left).

Changes in Government Spending

The political process will sometimes lead to increases or decreases in the level of **government spending**. Government spending is changed by the U.S. Congress or individual State legislatures. Increases in government spending will shift the AD curve to the right; decreases in government spending will shift the AD curve to the left.

Changes in Net Exports

There are two important factors unrelated to the price level that could increase or decrease the level of net exports and thereby shift the AD curve. The first has to do with **changes in national income (GDP) abroad**. As income abroad grows relative to income in the United States, foreigners are able to buy U.S. products more easily and Americans can afford fewer foreign goods. Net exports will go up, shifting the AD curve to the right. If incomes abroad fall relative to income in the US, the AD curve will shift left due to a decrease in net exports.

The second factor has to do with **exchange rates**, or the relative value of our currency to the currency of a trading partner. As an example, let's say that it takes 90 Japanese Yen to buy one US dollar. If the value of the yen relative to the dollar changes so that it takes 100 Yen to buy one US dollar, this will decrease the amount that Japanese citizens will buy in the US, and increase the amount that US citizens can buy in Japan. This change in the exchange rate will cause net exports to fall and the AD curve to shift to the left. If the Japanese Yen were to appreciate relative to the dollar, net exports would rise and the AD curve would shift to the right.

Summary of Aggregate Demand Shifts

Below is a table that summarizes the different aggregated demand shifters.

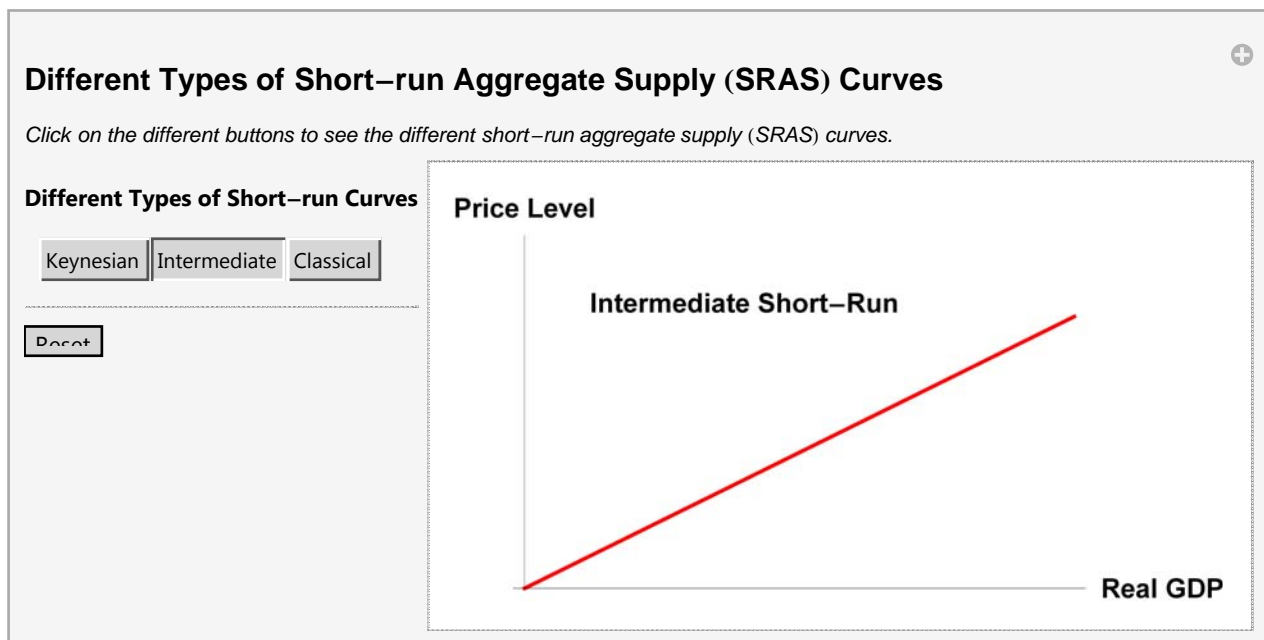
Factors That Shift Aggregate Demand		
<i>Below is a summary of the factors that shift aggregate demand. The second column shows the factor increasing and its impact on aggregate demand. The third column shows the factor decreasing and its impact on aggregate demand.</i>		
Changes in Consumption		
Consumer Wealth	↑; AD Shifts Right	↓; AD Shifts Left
Household Borrowing	↑; AD Shifts Right	↓; AD Shifts Left
Taxes	↑; AD Shifts Left	↓; AD Shifts Right
Consumer Expectations	↑; AD Shifts Right	↓; AD Shifts Left
Changes in Investment		
Interest Rates	↑; AD Shifts Left	↓; AD Shifts Right
Business Taxes	↑; AD Shifts Left	↓; AD Shifts Right
Technology	↑; AD Shifts Right	↓; AD Shifts Left
Business Expectations	↑; AD Shifts Right	↓; AD Shifts Left
Changes in Government Spending		
Government Spending	↑; AD Shifts Right	↓; AD Shifts Left
Changes in Net Exports		
Foreign National Income	↑; AD Shifts Right	↓; AD Shifts Left
Exchange Rates	\$ Appreciates; AD Shifts Left	\$ Depreciates; AD Shifts Right

Section 3: Aggregate Supply

Different Short-run Aggregate Supply Curves

The **Aggregate Supply (AS) curve** reflects the production of goods and services by business in response to higher prices. Consensus about the shape of the AS curve among economists is somewhat hard to come by. For example, most economists believe that the long-run aggregate supply (LRAS) curve is vertical at the full-employment level of real GDP because both product prices and input prices rise and fall to match changes in the overall price level. Since such changes do not affect real profits, there is no change in real GDP.

In the short-run however, there is disagreement as to the degree of steepness in the AS curve, ranging from flat (Keynesian or immediate short-run) to nearly vertical (Classical short-run). Generally, the **short-run aggregate supply (SRAS) curve** is thought to be upward sloping to the right (intermediate short-run), with a direct relationship between the amounts of goods and services being produced and various price levels (movements along the curve). Such a curve indicates that short-run price changes can and do affect short-run real profits. As a result, producers change their output levels in accordance with their perceived profit opportunities based on various market prices. The figure below allows you to see the different types of short-run curves. In this section, we will have the short-run aggregate supply curve (SRAS) in the intermediate short-run; therefore, it will be upward sloping.



Keynesian (Immediate) SRAS Curve

In the **Keynesian or immediate short-run aggregate supply curve** (click the “Keynesian” button in the figure above), the aggregate supply curve is horizontal. This horizontal range implies an economy in severe recession or depression. Typically the levels of real GDP in this economy are well below long-run aggregate supply (potential GDP). Remember that Keynes wrote his General Theory during the heights of the Great Depression, so the range of AS that is associated with his name corresponds to such an economy. Assume that you were running a factory during a severe recession with high unemployment, and you decided that you would like to increase output. You realize that, to increase output, you are going to have to employ more inputs, primarily more labor—however, a similar argument could be made about high unemployment of any of the other factors of production. You go to the factory door, open it, and find thousands of unemployed workers standing in line, wanting to work at your factory. How much would you have to pay them to get them to go to work for you? Certainly, you would not have to pay them

more than the going wage rate in the market, right? Essentially, you could hire as many unemployed resources as you would like without bidding up wages and prices, because of the substantial unemployment. The horizontal or Keynesian AS illustrates the idea of the economy being able to increase real output with no increase in the price level during periods of high unemployment. This range of the AS curve is also sometimes referred to as the Short Run AS curve.

Classical SRAS Curve

In the **Classical Range of short-run aggregate supply** (click the “Classical” button in the figure above), we are at or very near long-run aggregate supply or the full-employment level of output. This range is named after the Classical Economists who assumed that the economy, in the long run, would always achieve full employment. The Classical AS curve is sometimes very similar to the long-run AS (LRAS) curve. Assume again that you are running a factory, only this time, the economy is at full-employment. Let’s say again that you want to increase output, and that in order to do so you have to increase the number of workers at your factory. You go to the factory door and open it to find nobody waiting in line. There does not appear to be anyone looking for a job because everyone already has one! In order to hire additional workers, you go to other employers’ workers, and ask them to leave their job to work for you. How much are you going to have to pay these workers to get them to do that? Most likely you will have to pay them more than they are currently making. As you bid up wages in the labor market to attract additional workers, prices in the economy will also rise, because now it costs more to produce your product. That additional cost is passed to the consumer in the form of higher prices, to the extent possible. Attempts to increase output when there is a Classical short-run aggregate supply curve leads to higher price levels in the economy but what about real GDP? Does it actually increase? Well, your output may go up, but the output of the factory where your new workers used to work will go down, so the overall output in the economy stays the same.

Intermediate SRAS Curve

With the **Intermediate SRAS** curve increasing output is possible, but only at the expense of rising prices. While that Keynesian Range is a rare short-run occurrence, and the Classical Range is the almost like long-run aggregate supply, an economy with the Intermediate SRAS curve is probably where we find ourselves most often. For this lesson the SRAS curve we will be using is the intermediate short-run aggregate supply curve.

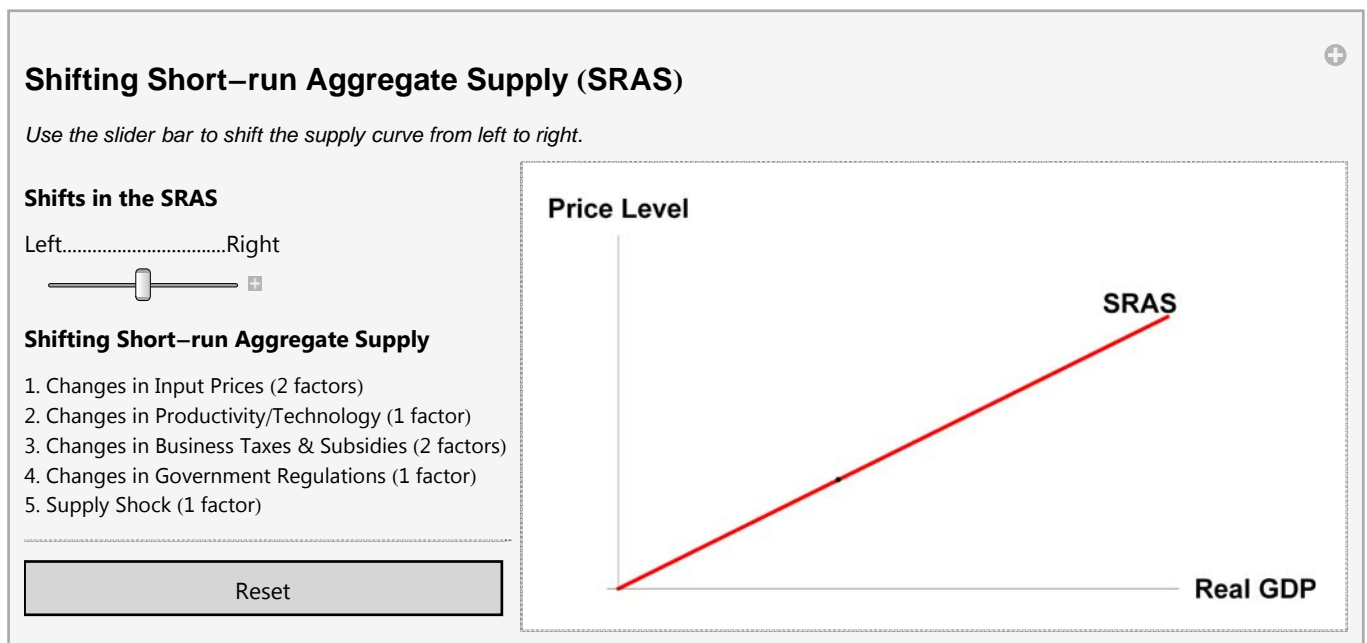
Long-run Aggregate Supply (LRAS) Curve

Long-run aggregate supply (LRAS) curve is vertical at the **full-employment level of real GDP** because both product prices and input prices rise and fall to match changes in the overall price level. Since such changes do not affect real profits, there is no change in real GDP. We will refer to LRAS as **potential GDP** or the level of full employment in this class.

Depending on the state of the economy, any attempt to change the output of the economy will move us along a given AS curve. There are factors that influence aggregate supply, illustrated by shifting the AS curve—these factors are referred to as determinants of AS. When these other factors change, they cause a shift in the entire AS curve and are sometimes called aggregate supply shifters and are discussed in the next section.

Section 4: Aggregate Supply Shifters

The graph below illustrates what a change in a determinants or shifters of aggregate supply will do to the position of the aggregate supply curve. As we consider each of the determinants remember that those factors that cause an increase in AS will shift the curve outward and to the right and those factors that cause a decrease in AS will shift the curve upward and to the left.



Changes in Input Prices

Anything that causes input prices to rise will decrease SRAS and shift the SRAS curve to the left. Anything that causes input prices to fall will increase SRAS and shift the SRAS curve to the right. For instance, if a **particular input into the production process is readily available from domestic suppliers**, it will generally be cheaper, holding all else constant (cet. par.). If for no other reason, transportation costs of delivering a domestic resource to a domestic producer will be less than delivering the identical resource from a foreign supplier. That does not even take into account the problems of getting a foreign resource such as duties and tariffs, political or social instability abroad, or other international disruptions. Another factor that can influence input prices would be the **market power of the suppliers of the resource**. The more competition in the supply of a resource, the cheaper that resource will be, cet. par. If the resource is supplied by a monopolist or a cartel (think OPEC oil), the price of that resource will be higher than if the resource is supplied by a more competitive industry (think corn-produced ethanol).

Changes in Technology/Productivity

Independent of its price, anything that makes resources more productive (i.e. produce more with the same level of outputs) will increase SRAS and shift the SRAS curve to the right; anything that makes resources less productive will decrease SRAS and shift the SRAS curve to the left. If workers become more productive because of investments in physical or human capital, the economy will be able to produce more and the SRAS curve will shift to the right. If workers become less productive because of outmoded equipment, insufficient training, or excessive union interference in their workplace, the economy will be less productive, and the SRAS curve will shift to the left.

Changes in Business Taxes and Subsidies

In brief, **business taxes** increase the cost of production and shift the SRAS curve to the left; **subsidies** decrease the cost of production and shift the AS curve to the right.

Changes in Government Regulations

Government regulations also influence the costs of production. Increasing government regulations makes it more expensive to produce the nation's output and shifts the SRAS curve to the left; reducing government regulations lessens the burden of business and shifts the SRAS curve to the right.

Supply Shocks

Supply shocks are events that impact the ability to supply inputs or outputs to various markets. For instance, a hurricane or major earthquake is a supply shock. This disrupts the ability to make inputs and/or outputs or increases the cost of an input such as oil. A negative supply shock shifts SRAS

Shifts in Long-run Aggregate Supply (LRAS)

Determinants that shift long-run aggregate supply (SRAS) curve is technology, levels of labor, and levels of capital. Typically as an economy moves through time levels of labor and capital are increasing. Technology will typically be increasing during this period of time. There are of course exceptions that could slow growth in long-run aggregate supply or even cause it to be reduced.

In the next section we will put AD, SRAS, and LRAS together in one graph and find short-run and long-run macroeconomic equilibrium.

Summary of Short-run Aggregate Supply Shifts

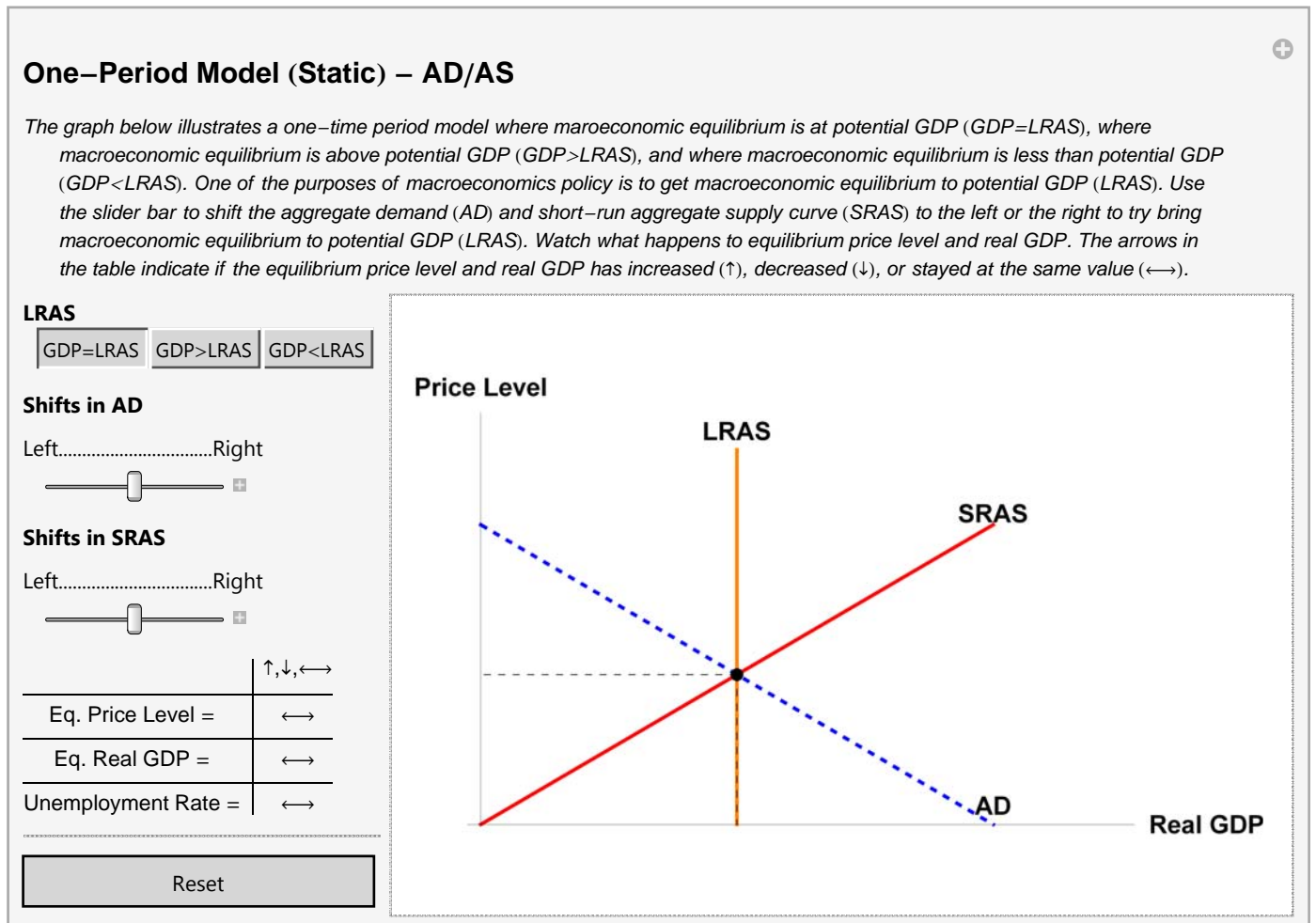
Below is a table that summarizes the different aggregated demand shifters.

Factors That Shift Short–Run Aggregate Supply (SRAS)		
<i>Below is a summary of the factors that shift short–run aggregate supply. The second column shows the factor increasing and its impact on short–run aggregate supply. The third column shows the factor decreasing and its impact on short–run aggregate supply.</i>		
Changes in Input Prices		
Availability of Domestic Inputs	↑; SRAS Shifts Right	↓; SRAS Shifts Left
Market Power of Input Supplier	↑; SRAS Shifts Left	↓; SRAS Shifts Right
Changes in Productivity/Technology		
Productivity/Technology	↑; SRAS Shifts Right	↓; SRAS Shifts Left
Changes in Business Taxes and Subsidies		
Business Taxes	↑; SRAS Shifts Left	↓; SRAS Shifts Right
Business Subsidies	↑; SRAS Shifts Right	↓; SRAS Shifts Left
Changes in Government Regulations		
Government Regulations	↑; SRAS Shifts Left	↓; SRAS Shifts Right
Supply Shock		
Supply Shock	Positive; SRAS Shifts Right	Negative; SRAS Shifts Left

Section 5: Equilibrium - One-Period Model

Equilibrium in the Aggregate Demand/Aggregate Supply model is achieved at the intersection of AD and AS, resulting in an equilibrium price level and an equilibrium real GDP (GDP) level. As you can readily see, shifts in one or both of the curves will change the equilibrium price and/or output. Use the graph below to shift the AD and SRAS curves. If the economy achieves equilibrium GDP below the full-employment GDP, then the economy's performance

is faltering and it may be in recession. On the other hand, if the equilibrium GDP is higher than the full-employment level of GDP, then the economy may be overheating, putting upward pressure on prices. Looking at the graph, unemployment is determined by looking at the distance between the equilibrium GDP and the potential GDP (LRAS). As you move the sliders notice what happens to unemployment as the equilibrium changes.



Shifts in AD Curve

Let's review all of the possible impacts on the price level and the level of real GDP from a shift in the AD curve. An increase in AD when SRAS is upward sloping will increase real GDP and increase the price level; a decrease in AD will decrease real GDP and decrease the price level. Notice that when short-run aggregate supply is upward sloping, there is a trade off between two of the key economic variables that concern US citizens: inflation and unemployment. Typically, we would like both inflation and unemployment to be low. However, if we increase AD, inflation will go up as unemployment falls (notice that if real GDP is going up, unemployment is going down: in order to increase GDP, you have to hire more workers). The price increases that result from increases in AD are examples of demand-pull inflation. On the other hand, if we decrease AD, inflation will fall but unemployment will rise. There is no way to simultaneously decrease inflation and decrease unemployment using demand side shifts.

Do you think that decreases in AD have exactly the opposite effects as the increases? Typically they do, but there is a possibility of inflexibility downward of prices due to the "**ratchet effect**." In economics, the ratchet effect states that while prices are quick to increase, they are very slow to fall. Why do you think that prices would go up very easily but fall only slowly? Part of the answer has to do with the fact that it actually costs businesses money to change their prices (think of printing new catalogs, printing new menus, recoding prices in a computer and on scanners, or sending a worker out to change the prices on a marquee). It is worth it to the business to incur this expense when the price is going up, but when the price is going down they are hesitant to take on the expense of changing prices.

Shifts in SRAS Curve

A decrease in SRAS will increase the price level and decrease real GDP. An increase in SRAS will reduce the price level and increase real GDP. The inflation that is associated with a decrease in the SRAS is called cost-push inflation. During the 1970s, a variety of factors shifted the AS curve to the left. The high inflation that was combined with a stagnant economy (low levels of output and high unemployment) gave rise to the term stagflation.

When Ronald Reagan was elected President in 1980, the inflation rate was 13.5% and the unemployment rate was 7.5%. Reagan employed supply-side policies that were designed to shift the SRAS curve to the right and reduce both inflation and unemployment simultaneously. Only by supply-side policies can you decrease both inflation and unemployment at the same time. By the time that Reagan left office eight years later, the inflation rate in the economy was 4.1% and the unemployment rate of 5.3%.

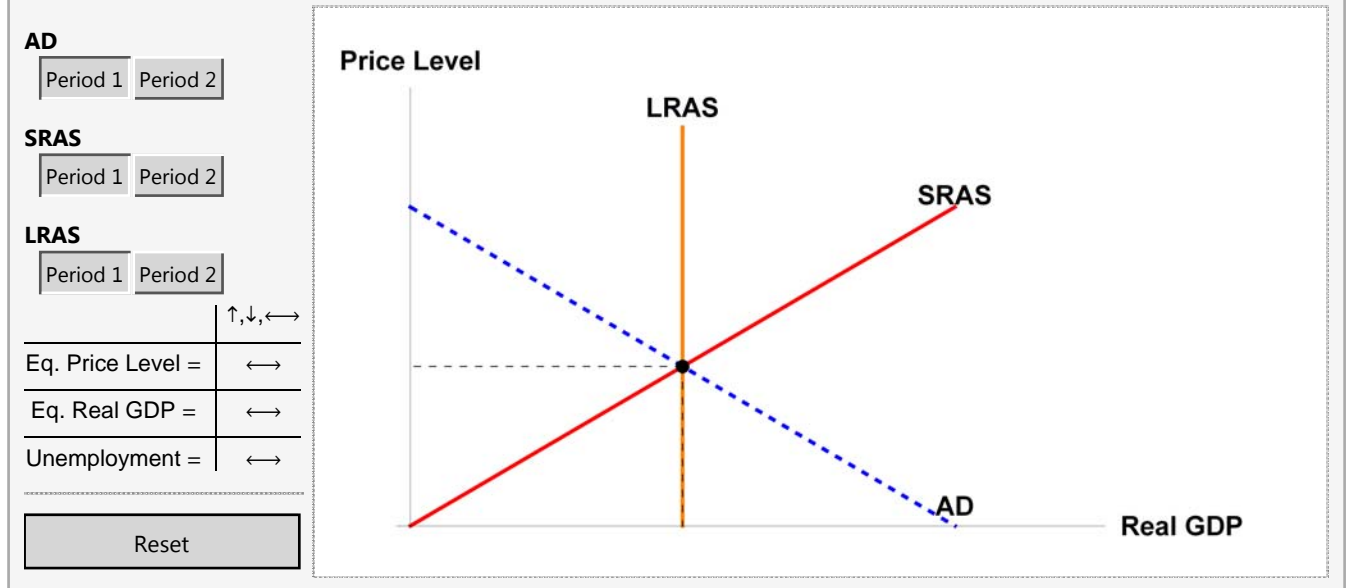
Section 6: (Optional) Equilibrium: Two-Period Model

The one-period model in section 5 helps show how the economy responds to changes in AD and/or SRAS. The only problem is that throughout time the United States has seldom had deflation. Typically from one-period to the next prices are rising. By adding time to the model we can see how an economy can still have inflation even if the economy is suffering from a recession.

The graph below illustrates a two-period model. The benefit of this model is to show how policy can influence the macroeconomy based on a particular forecast for the second period. Under the normal functioning of a market economy, the potential GDP (LRAS), short-run aggregate supply (SRAS), and aggregate demand (AD) will shift to the right from period 1 to period 2. The average economic trend for the United States over the last 50 years is continued economic growth from one period to the next. One other important feature is that price level rises from one period to the next. The price level is the GDP price index (GDP deflator), and it has not experienced deflation (or decline of the price level) since the Great Depression (1930s).

Two-Period Model (Dynamic) – AD/AS

The graph below illustrates a two-period model. The benefit of this model is to show how policy can influence the macroeconomy based on a particular forecast for the second period. Under the normal functioning of a market economy, the potential GDP (LRAS), short-run aggregate supply (SRAS), and aggregate demand (AD) will shift to the right from period 1 to period 2. The average economic trend for the United States over the last 50 years is continued economic growth from one period to the next. One other important feature is that price level rises from one period to the next. The price level is the GDP price index (GDP deflator) and it has not experienced deflation (or decline of the price level) since the Great Depression (1930s). As you click the button 'Period 2' button for AD, SRAS, and LRAS, notice that AD shifts more than SRAS. This gives us inflation from period 1 to period 2. Also notice that LRAS shifts just enough for the macroeconomic equilibrium to stay at potential GDP (LRAS). The end result is that real GDP increases, price level increases, and unemployment stays the same.



The power of this model is that we can model different situations in the economy. Recessions, demand-pull inflation, cost-inflation (stagflation), and slow economic growth will be demonstrated using the two-period model.

Inflation

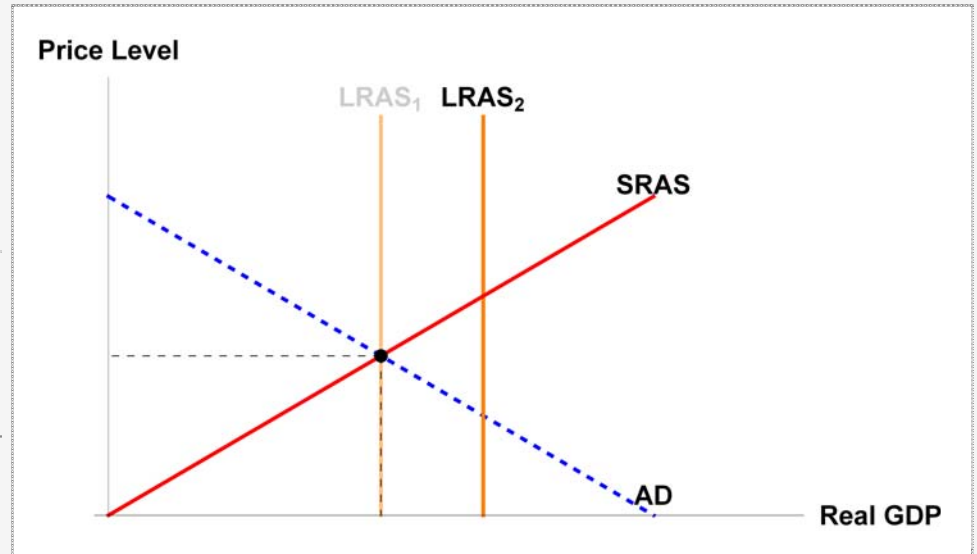
The two-period model below illustrates **demand-pull inflation** and **cost-push inflation**. In this specific example the cost-push inflation results in a recession (decline of real GDP from one period to the next) called stagflation. When inflation rates are really high and real GDP is declining it can be problematic for a policy maker to implement a policy. Contractionary policy could send the economy into a deeper recession and expansionary policy could make the inflation rates to increase. We will discuss specific policy in Lesson 9 and Lesson 11.

Two-Period Model (Dynamic) – Inflation

The graph below illustrates a two-period model. We are currently in period 1. The LRAS for period 2 is already on the graph. Each scenario illustrates what the economy looks like when there is demand-pull inflation (scenario 1) and cost-push inflation (scenario 2). Click on 'AD Period 2' and 'SRAS Period 2' under scenarios 1 and 2 to see how AD and SRAS move. Also notice what happens to unemployment, inflation, and real GDP from period 1 to period 2. Notice that cost-push inflation leads to a recession and high inflation rates. We call this stagflation.

Scenario 1: Demand-Pull Inflation

Scenario 2: Cost-Push Inflation



Slow Economic Growth and Recessions

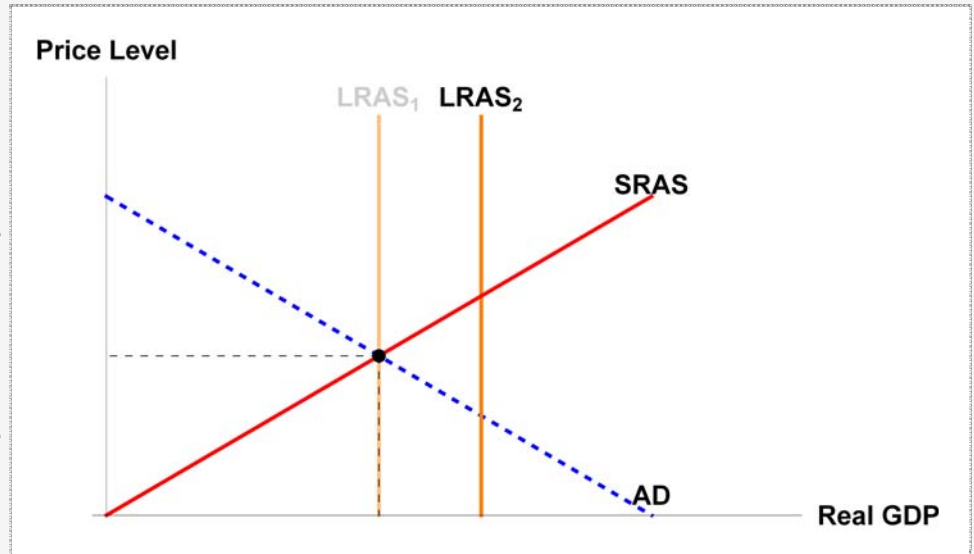
The two-period model below illustrates **slow economic growth** and **recessions** while still having and increase in price level from period 1 to period 2. Policy makers would forecast what the economy will be like in the next period and then try to enact policy today to keep the economy growing at a reasonable pace. We will discuss more of the policy options in Lesson 9 and Lesson 11.

Two-Period Model (Dynamic) – Slow Growth and Recessions

The graph below illustrates a two-period model. We are currently in period 1. The LRAS for period 2 is already on the graph. Each scenario illustrates what the economy looks like when there is slow economic growth (scenario 1) and recessions (scenario 2). Click on 'AD Period 2' and 'SRAS Period 2' under scenarios 1 and 2 to see how AD and SRAS move. Also notice what happens to unemployment, inflation, and real GDP from period 1 to period 2. Notice that in both scenarios prices are still increasing in the economy.

Scenario 1: Slow Growth

Scenario 2: Recession



Summary

Key Terms

AD
 Aggregate Demand Curve
 Aggregate Demand/Aggregate Supply Model
 Aggregate Supply Curve
 AS
 Business Taxes
 Changes in Business Taxes and Subsidies
 Changes in Government Regulations
 Changes in Government Spending
 Changes in Input Prices
 Changes in Investment
 Changes in National Income (GDP) Abroad
 Changes in Technology/Productivity
 Classical Short-run Aggregate Supply Curve
 Consumer Borrowing
 Consumer Expectations about the Future
 Consumer Wealth
 Cost-Push Inflation
 Demand-Pull Inflation
 Deriving Aggregate Demand
 Domestic Input Availability

Dynamic Model
Equilibrium
Exchange Rates
Foreign Purchases Effect
Full Employment
Government Regulations
Government Spending
Immediate Short-run Aggregate Supply Curve
Interest Rate
Interest Rate Effect
Intermediate Short-run Aggregate Supply Curve
International Effect
Keynesian Short-run Aggregate Supply Curve
Level of Full Employment
Long-run Aggregate Supply Curve
LRAS
Macroeconomic Equilibrium
Multiplier Effect
One-Period Model
Potential GDP
Ratchet Effect
Real Balances
Real Balances Effect
Recessions
Resource Supplier's Market Power
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