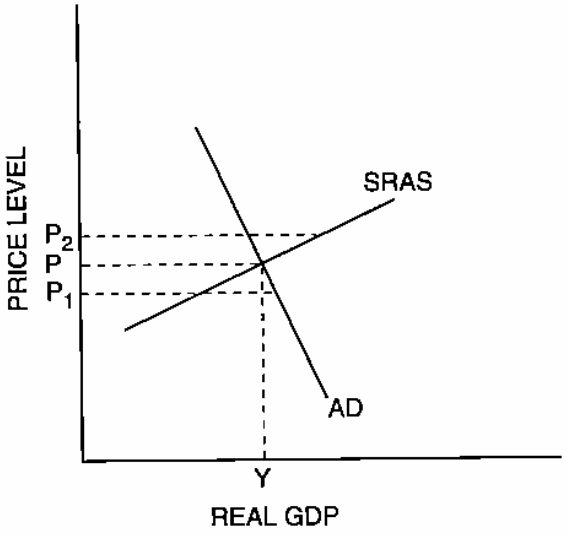
Short-Run Equilibrium Price Level and Output

Part A
Equilibrium

Figure 25.1
Equilibrium Price and Output Levels



1. What are the equilibrium price level and output? _____

2. What would eventually happen to the price level and output if the initial price level were P_2 rather than P? Why would this happen?

3. What would eventually happen to the price level and output if the initial price level were P_1 rather than P? Why would this happen?

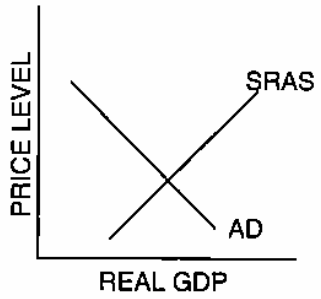
Activity written by John Morton, National Council on Economic Education, New York, N.Y., and James Stanley, Choate Rosemary Hall, Wallingford, Conn.

Part B
Changes in the Equilibrium Price Level and Output

For each situation described below, illustrate the change on the AD and AS graph and describe the effect on the equilibrium price level and real GDP by circling the correct symbol: ↑ for increase, ↓ for decrease, or — for unchanged.

4. Congress passes a tax cut for the middle class, and the president signs it.

Middle Class Tax Cut

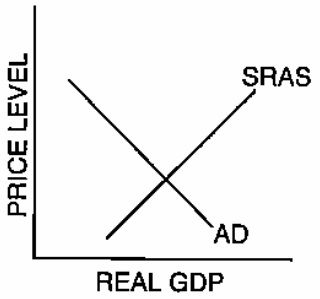


Price level: ↑ ↓ —

Real GDP: ↑ ↓ —

5. During a recession, the government increases spending on schools, highways and other public works.

Increased Government Spending

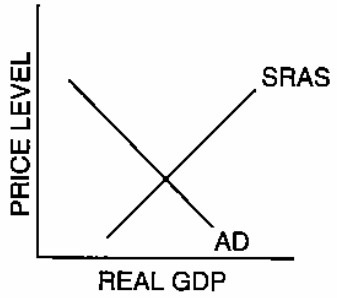


Price level: ↑ ↓ —

Real GDP: ↑ ↓ —

6. New oil discoveries cause large decreases in energy prices.

New Oil Discoveries

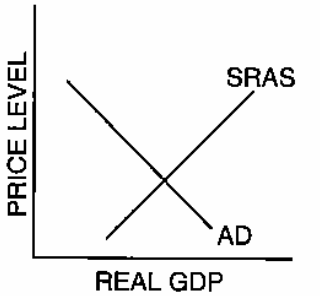


Price level ↑ ↓ —

Real GDP ↑ ↓ —

7. Illustrate the effects of an increase in aggregate demand.

Effects of an Increase in AD

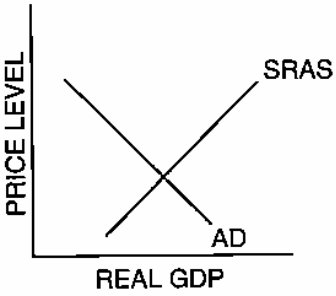


Price level ↑ ↓ —

Real GDP ↑ ↓ —

8. Illustrate the effects of increases in production costs.

Effects of Increases in Production Costs

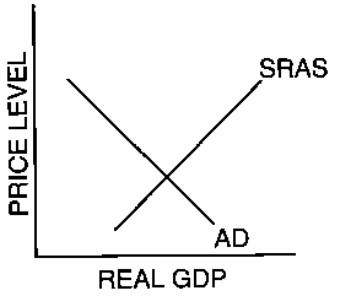


Price level ↑ ↓ —

Real GDP ↑ ↓ —

9. New technology and better education increase productivity.

Effects of New Technology and Better Education

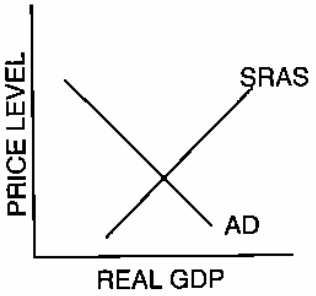


Price level ↑ ↓ —

Real GDP ↑ ↓ —

10. A new president makes consumers and businesses more confident about the future economy. **Note:** Show the change in AD only.

Increased Confidence for Future Economy

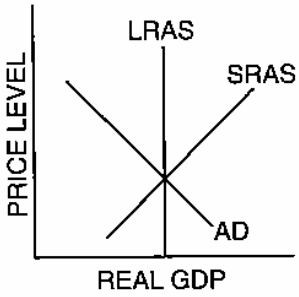


Price level ↑ ↓ —

Real GDP ↑ ↓ —

11. With the unemployment rate at five percent, the federal government reduces personal taxes and increases spending. **Note:** Show the change in AD only.

Reduced Taxes and Increased Government Spending



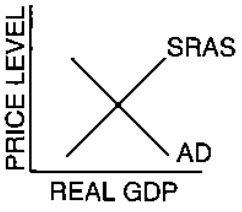
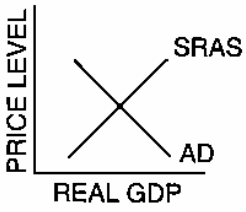
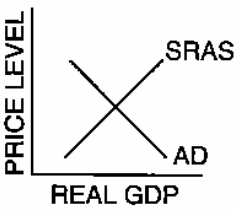
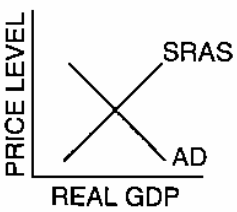
Price level ↑ ↓ —

Real GDP ↑ ↓ —

Part C

Summarizing Aggregate Demand and Aggregate Supply Shifts

For each of the events below, make additions to the graph to illustrate the change. Then indicate the response in terms of shifts in or movements along the aggregate demand or aggregate supply curve and the short-run effect on real GDP and the price level. Indicate *shifts* in the curve by S and movements *along* the curve by A. Indicate the changes in price level, unemployment and real GDP with an up arrow for an increase and a down arrow for a decrease.

	1. Increase in labor productivity due to technological change	2. Increase in the price of inputs used by many firms	3. Boom in investment assuming some unemployed resources are available	4. A major reduction in investment spending
				
AD Curve	____	____	____	____
AS Curve	____	____	____	____
Real GDP	____	____	____	____
Price Level	____	____	____	____
Unemployment	____	____	____	____

Reconciling the Keynesian Aggregate Expenditure Model With the Aggregate Demand and Aggregate Supply Model

Now it is time to reconcile the Keynesian aggregate expenditure model with the aggregate demand and supply model. We find both differences and similarities when comparing the two models:

- The Keynesian model is a fixed, or constant, price model while the AD and AS model is a variable-price model. The vertical axis of the Keynesian model is *aggregate expenditure* while the vertical axis of the AD and AS model is *price level.*

- Aggregate expenditure (C + I + G + Net Exports) on the Keynesian model is aggregate demand on the AD and AS model. A shift upward in aggregate expenditure is the same as a shift outward in aggregate demand. A shift downward of aggregate expenditure is the same as a shift inward of aggregate demand.

- The AD and AS model can account for shifts in aggregate supply. The Keynesian model cannot do so.

- In the Keynesian model, a shift in aggregate expenditures results in the full multiplier effect, and the multiplier can easily be calculated from the graphs. In the AD and AS model, the multiplier is not at full strength on the positively sloped and vertical AS curves.

- In the AD and AS model, the increase in the price level diminishes the impact of the multiplier.

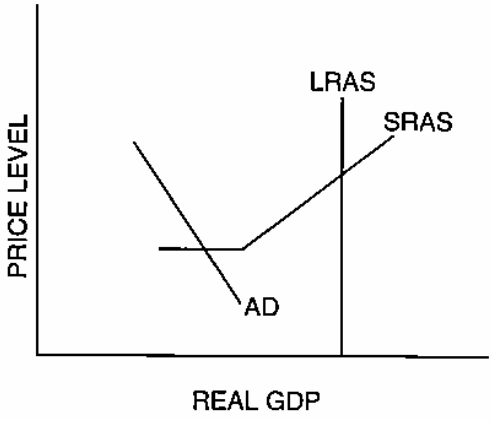
Activity written by John Morton, National Council on Economic Education, New York, N.Y.

For each of the following situations, illustrate the indicated change on both the AD and AS model and the Keynesian model.

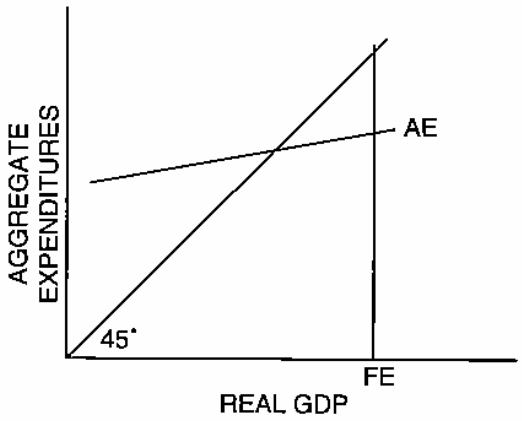
1. The economy is at less than *full* employment. An increase in consumer confidence moves the economy to *full* employment.

Figure 26.1
An Increase in Consumer Confidence

Less Than Full Employment Using the AD and AS Model



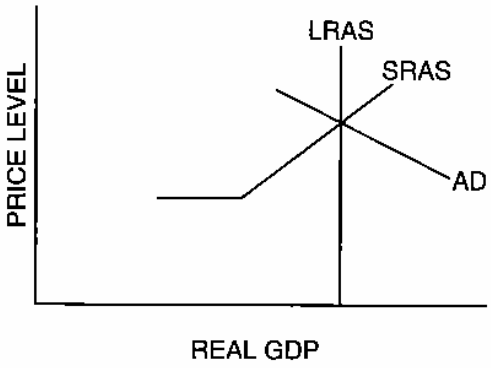
Less Than Full Employment Using the Keynesian Model



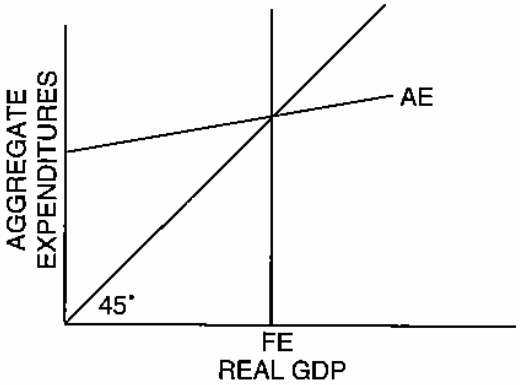
2. The economy is at full employment but businesses begin to believe that a recession is ahead.

Figure 26.2
Businesses Believe a Recession Is Coming

Full Employment Using the AD and AS Model



Full Employment Using the Keynesian Model



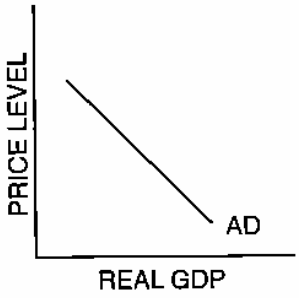
Manipulating the AD and AS Model: Exogenous Demand and Supply Shocks

Part A
Exogenous Demand Shocks

An *exogenous demand shock* is a change in an exogenous variable — a variable determined outside the model — that affects aggregate demand. Read the description of each exogenous demand shock, and then draw a new AD curve that will represent the change the demand shock caused. Label the new curve AD_1. Then briefly explain the reason for the change in the graph.

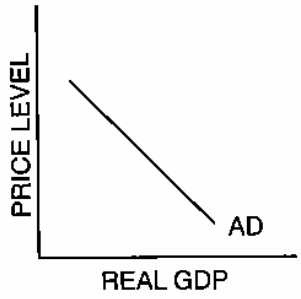
1. **Exogenous Demand Shock:** Economic booms in both Japan and Europe result in massive increases in orders for exported goods from the United States.

EXPLANATION:



2. **Exogenous Demand Shock:** As part of its countercyclical policy, the government both reduces taxes and increases transfer payments.

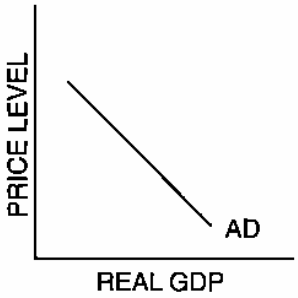
EXPLANATION:



Activity written by Robert Nuxoll, Oceanside High School, Oceanside, N.Y.

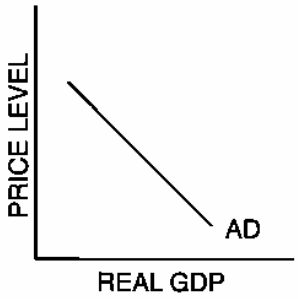
3. **Exogenous Demand Shock:** While the United States was in the midst of the Great Depression, a foreign power attacked, Congress declared war and more than 1,000,000 soldiers were drafted in the first year while defense spending was increased several times over.

EXPLANATION:



4. **Exogenous Demand Shock:** To balance the budget, the federal government cuts Social Security payments by 10 percent and federal aid to education by 20 percent.

EXPLANATION:

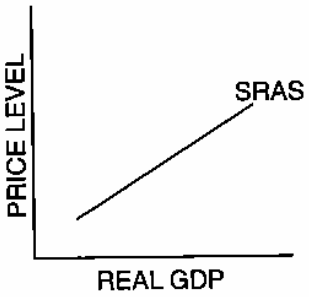


Part B
Exogenous Supply Shocks

The cause of an *exogenous supply shock* is the change in an exogenous variable — a variable determined outside the model — that affects aggregate supply. Read the description of each exogenous shock to short-run aggregate supply, and then draw a new SRAS curve that will represent the change caused by the shock. Label the new curve $SRAS_1$. Then briefly explain the reason for the change in the graph.

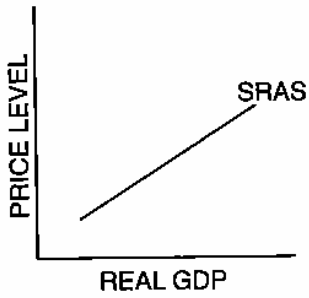
5. **Exogenous Supply Shock:** New environmental standards raise the average cost of autos and trucks 5 percent.

EXPLANATION:



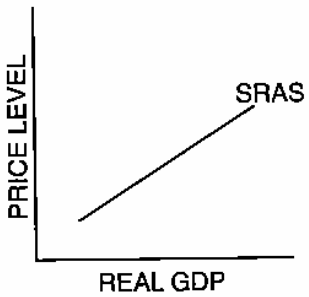
6. **Exogenous Supply Shock:** Fine weather results in the highest corn and wheat yields in 40 years.

EXPLANATION:

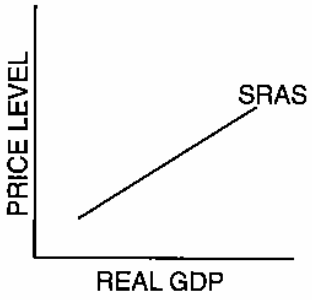


7. **Exogenous Supply Shock:** Because of decreased international tension, the government sells off thousands of army-surplus Jeeps and trucks at prices that are far less than the market price for their commercial counterparts.

EXPLANATION:



8. **Exogenous Supply Shock:** An enemy power sets up a blockade of the sea lanes leading to a country, and most ships refuse to deliver cargo through the blockade.



EXPLANATION:

Part C
Manipulating the Aggregate Supply and Demand Model

Read each of the scenarios below, and explain the impact the exogenous shocks will have on short-run aggregate supply and aggregate demand. Then draw a correctly labeled aggregate demand and aggregate supply graph to illustrate each short-run impact.

9. During a long, slow recovery from a recession, consumers postponed major purchases. Suddenly they begin to buy cars, refrigerators, televisions and furnaces to replace their failing models.

10. With no other dramatic changes, the government raises taxes and reduces transfer payments in the hope of balancing the federal budget.

11. News of possible future layoffs frightens the public into reducing spending and increasing saving for the feared "rainy day."

12. Because of rising tensions in many developing countries, firms begin to build new factories in Econoland and to purchase sophisticated machinery from Econoland businesses that will enable them to produce in Econoland at prices that are competitive.

13. Brazil solves its foreign debt and inflation problems. It then orders $10 billion worth of capital machinery from Econoland. Draw the AD and short-run AS graph for Econoland.