

## *An Introduction to Aggregate Demand*

### Why Is the Aggregate Demand Curve Downward Sloping?

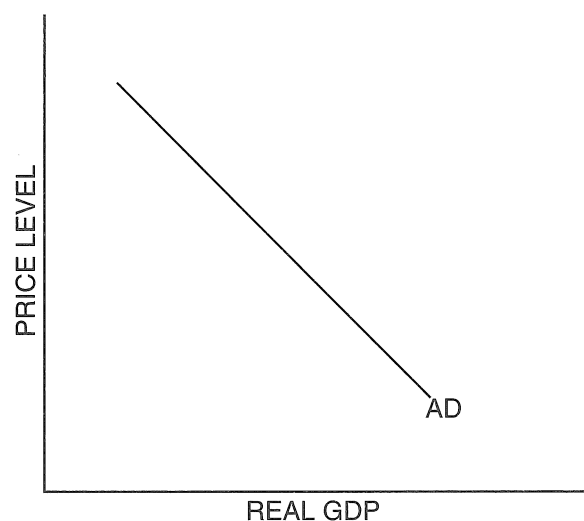
Aggregate demand (AD) shows the relationship between real gross domestic product (GDP) and the price level in the economy. As shown in Figure 3-1.1, the AD curve has a negative slope, showing that as the price level increases, real GDP decreases, and as the price level decreases, real GDP increases. The negative relationship between the price level and real GDP is explained by three different things that happen when the price level changes in the economy. When the price level changes, it affects consumers' purchasing power, interest rates paid by consumers and businesses, and the relative prices of domestic goods and services compared to imported goods and services. The effect of a change in the price level on consumers' purchasing power is called the *wealth effect*. The effect of a change in the price level on interest rates (and therefore interest-sensitive spending by consumers on things like houses and cars and investment spending by businesses) is called the *interest rate effect*. The effect of a change in the price level on imports and exports is called the *net export effect*. These three effects explain why the AD curve has a negative slope.

! **Student Alert:** Make sure that when you label an AS/AD graph you use price level and real GDP. Don't use P and Q—those are MICRO labels!



Figure 3-1.1

### Aggregate Demand Curve



1. Explain how each of the following effects leads to a decrease in real GDP when the price level rises.

(A) Interest rate effect

(B) Wealth effect or real balance effect

(C) Net export effect

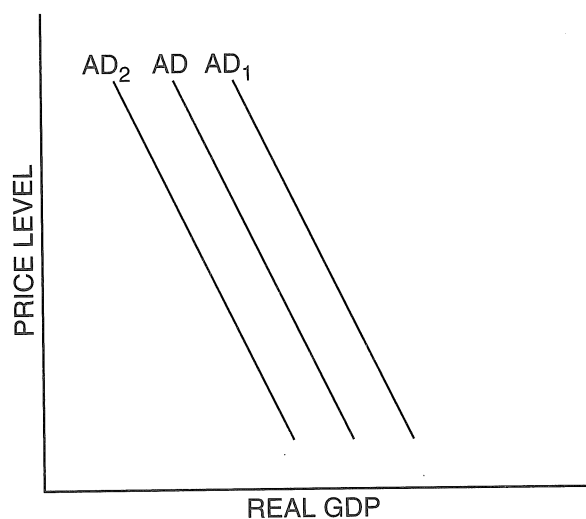
### What Shifts the Aggregate Demand Curve?

AD is made up of spending by households, businesses, the government, and other countries. The AD curve will shift if there is a change in any of its components: consumption (C), investment (I), government spending (G), or net exports (Xn). As shown in Figure 3-1.2, an increase in AD is shown by a rightward shift of the AD curve, e.g., from AD to  $AD_1$ . A decrease in AD is shown by a leftward shift of the AD curve, e.g., from AD to  $AD_2$ .



Figure 3-1.2

### Shifts in Aggregate Demand



Determine whether each change listed in Table 3-1.1 will cause an increase, decrease, or no change in AD.

2. In column 1, list which component of AD is affected: C, I, G, or Xn.
3. In column 2, draw an up arrow if the change will cause an increase in AD, a down arrow if it will cause a decrease in AD, and write NC if it will not change AD.
4. In column 3, write the number of the AD curve after the change (always start with AD).



Table 3-1.1

**Changes in Aggregate Demand**

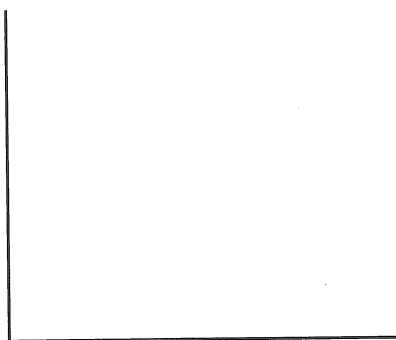
Change	1. Component of AD	2. Direction of AD change	3. Resulting AD curve
(A) Consumers respond to high levels of debt by reducing their purchases of durable goods.			
(B) Reduced business confidence leads to a reduction in investment spending.			
(C) Government spending increases with no increase in taxes.			
(D) Survey shows consumer confidence jumps.			
(E) Stock market collapses; investors lose billions.			
(F) Productivity rises for fourth straight year.			
(G) New tariffs on imported goods lead to a trade war that reduces exports by more than it reduces imports.			

### Investment Demand

Investment spending consists of spending on new buildings, machinery, plants, and equipment. Investment spending is a part of aggregate expenditures in the economy. Any increase in investment spending will necessarily increase aggregate expenditures (GDP) and AD.

Decisions about investment spending are based on a comparison of marginal cost and marginal benefit. If a firm expects a particular project to yield a greater benefit than cost, it will undertake it. An important cost associated with investment spending is the interest expense. Firms must either borrow money to engage in an investment project or use their own money. In either case, the interest rate determines the cost of the investment project. If the firm borrows money to invest, it must pay the interest rate to borrow. If the firm uses its own money, then it gives up the interest it could have earned by loaning that money to someone else. That is, the interest rate measures the opportunity cost if a firm invests with its own money.

5. Draw a graph illustrating an investment demand curve. Remember, the price paid to invest is the interest rate, so your graph should show the interest rate on the vertical axis, and the demand curve should have a slope that illustrates the relationship between the interest rate and the amount of investment a firm will undertake.



6. What factors could cause a firm to invest more or less at any given level of the interest rate? That is, what could cause the investment demand curve to shift (increase or decrease)?