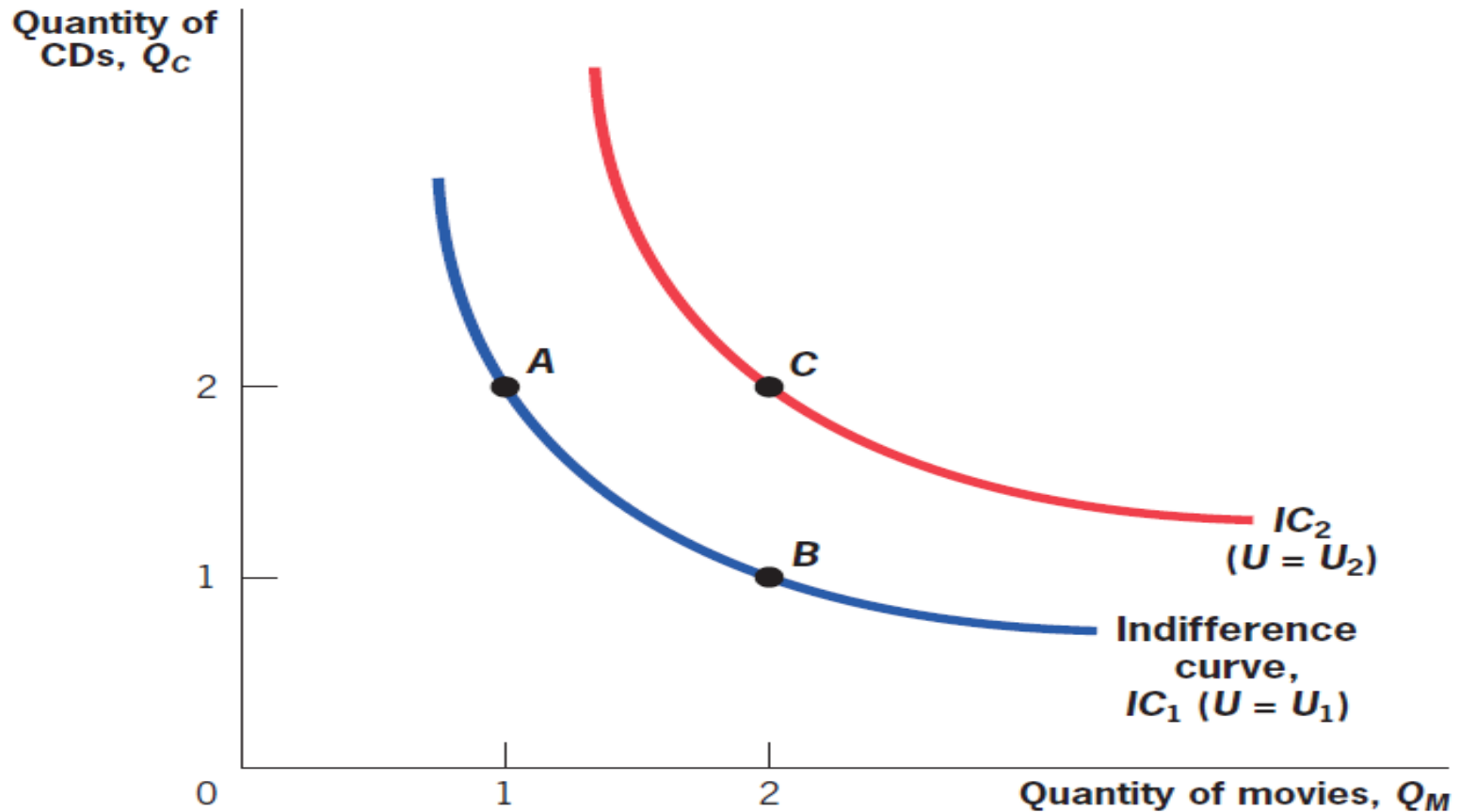


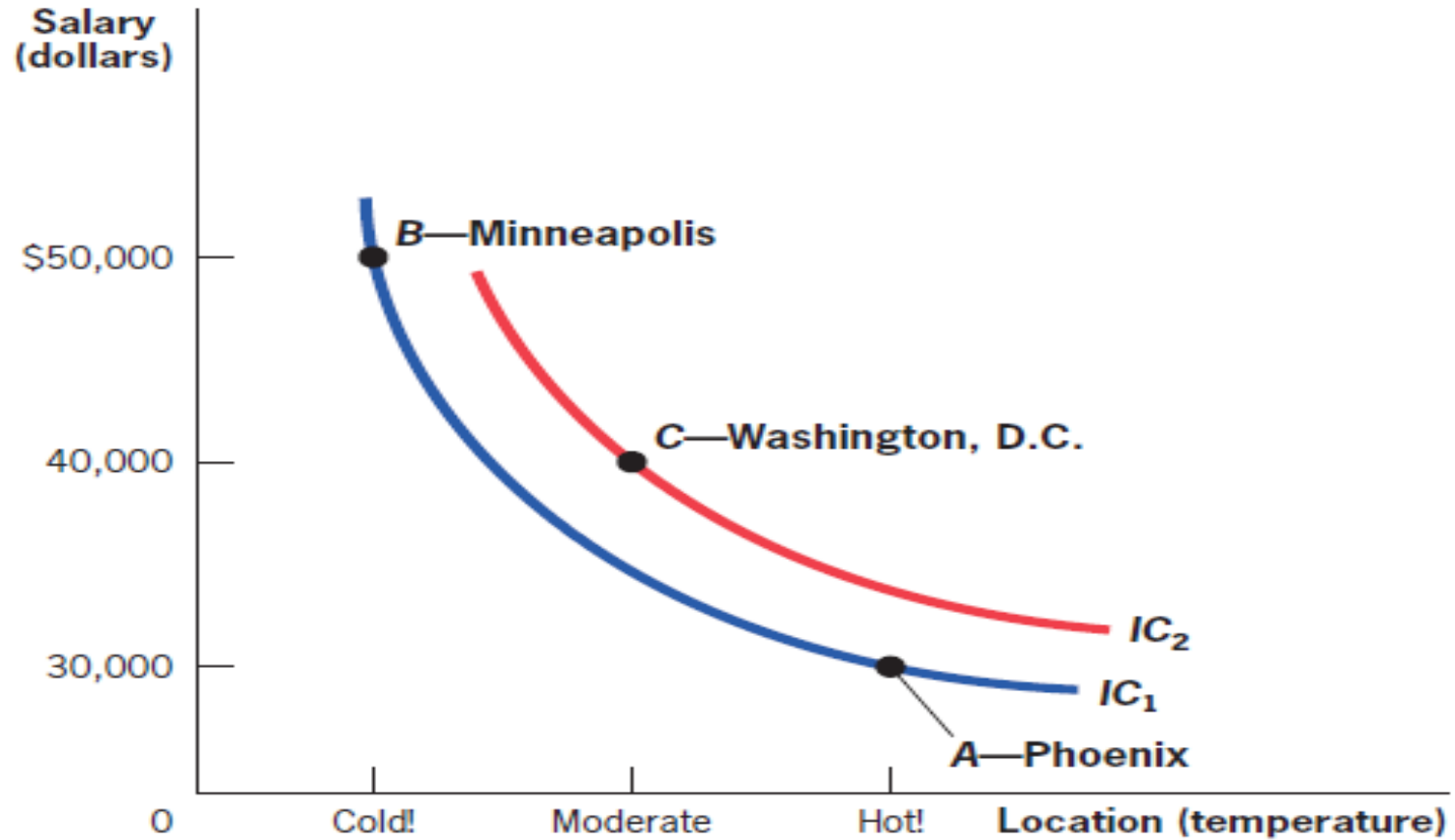
2.1

Preferences and Indifference Curves



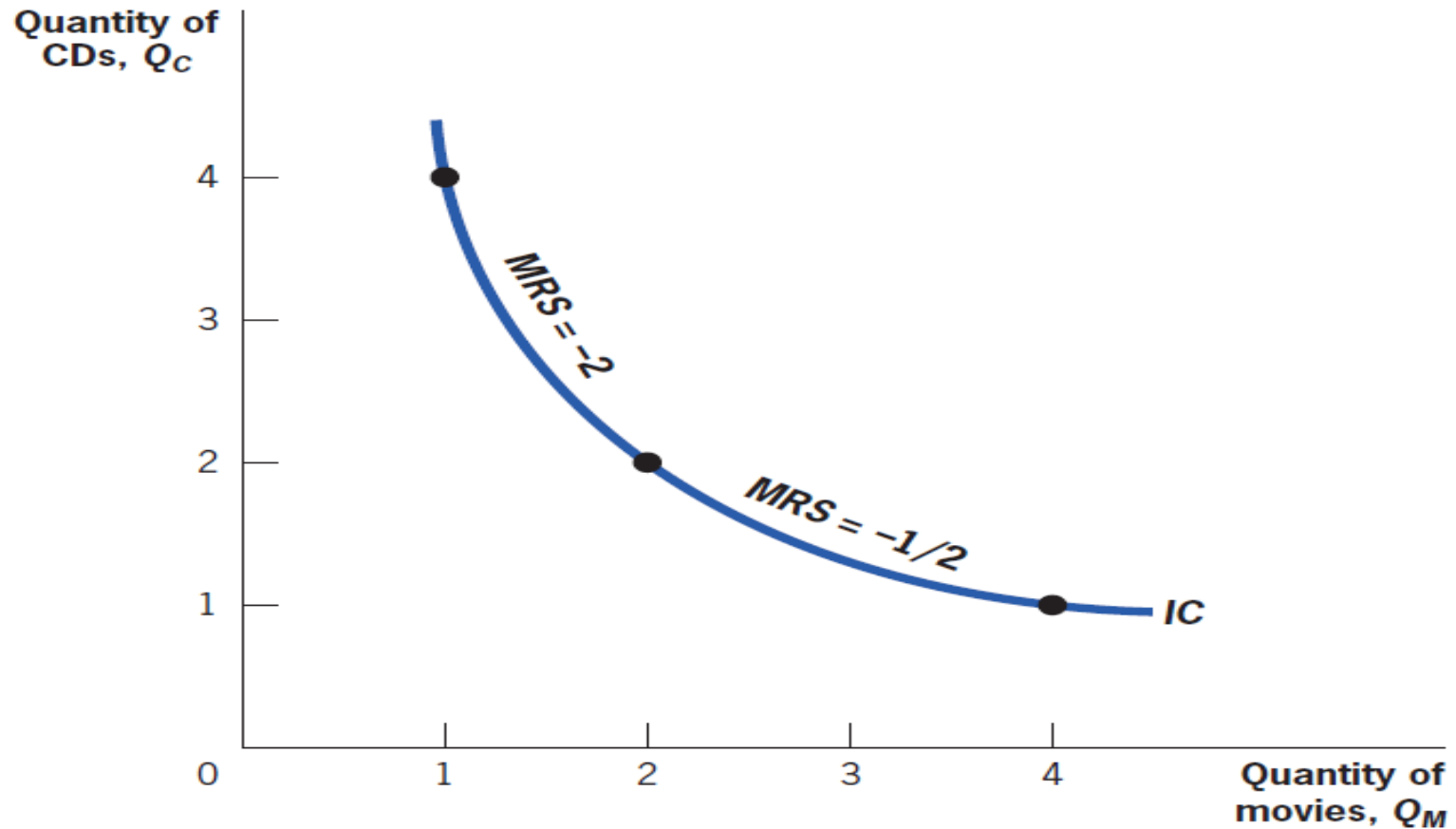
2.1

Preferences and Indifference Curves



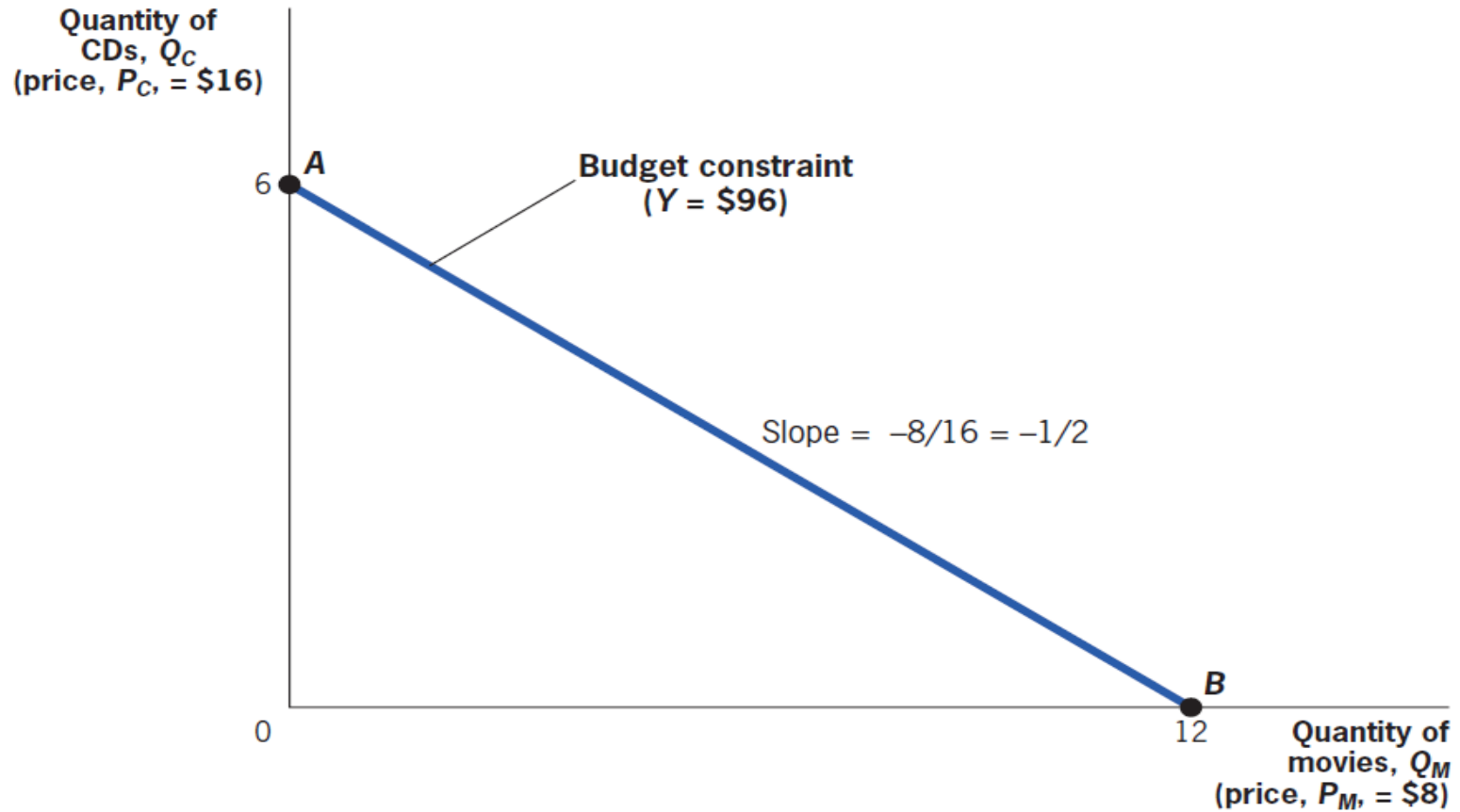
2.1

Marginal Rate of Substitution



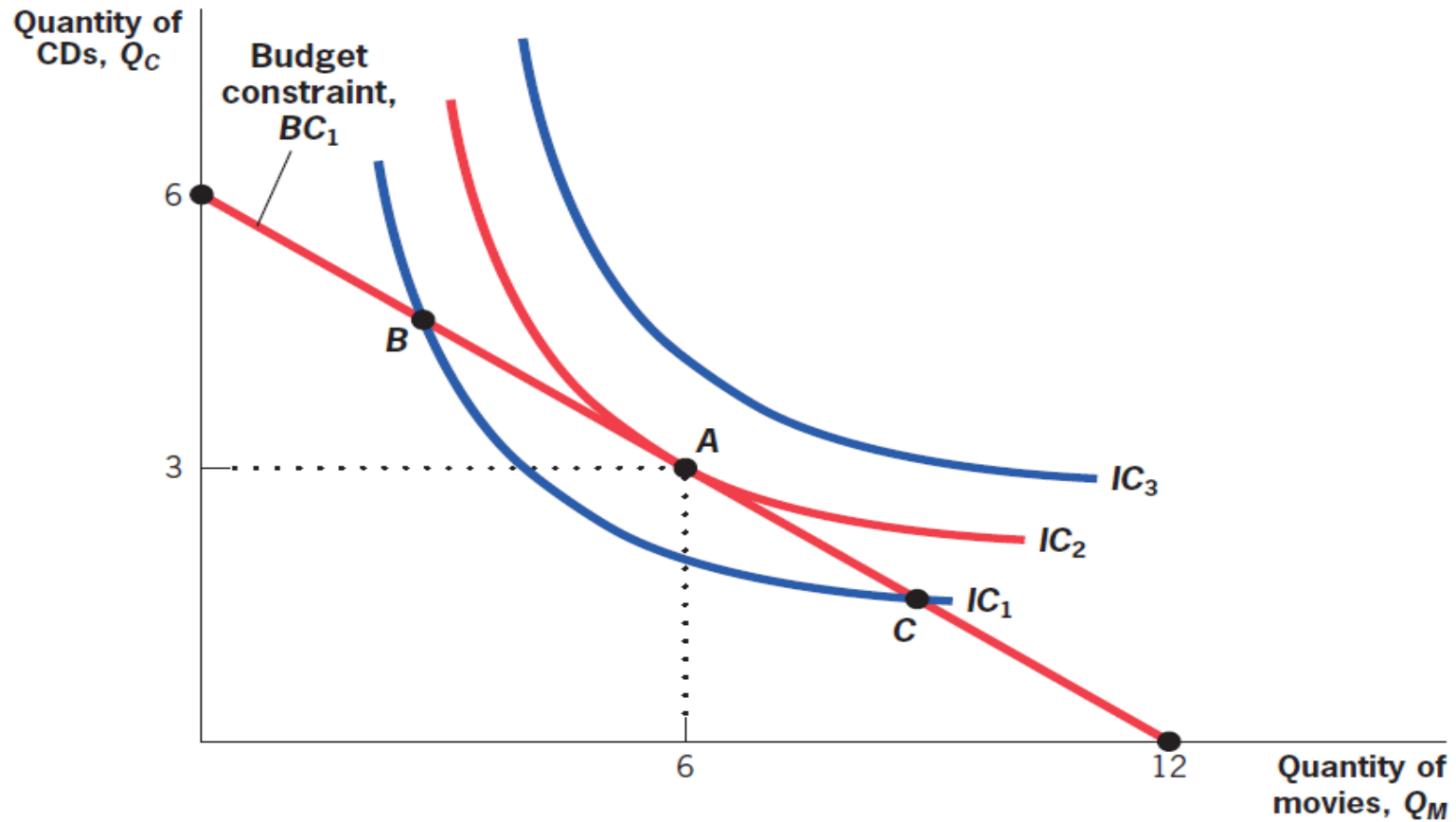
2.1

Budget Constraints



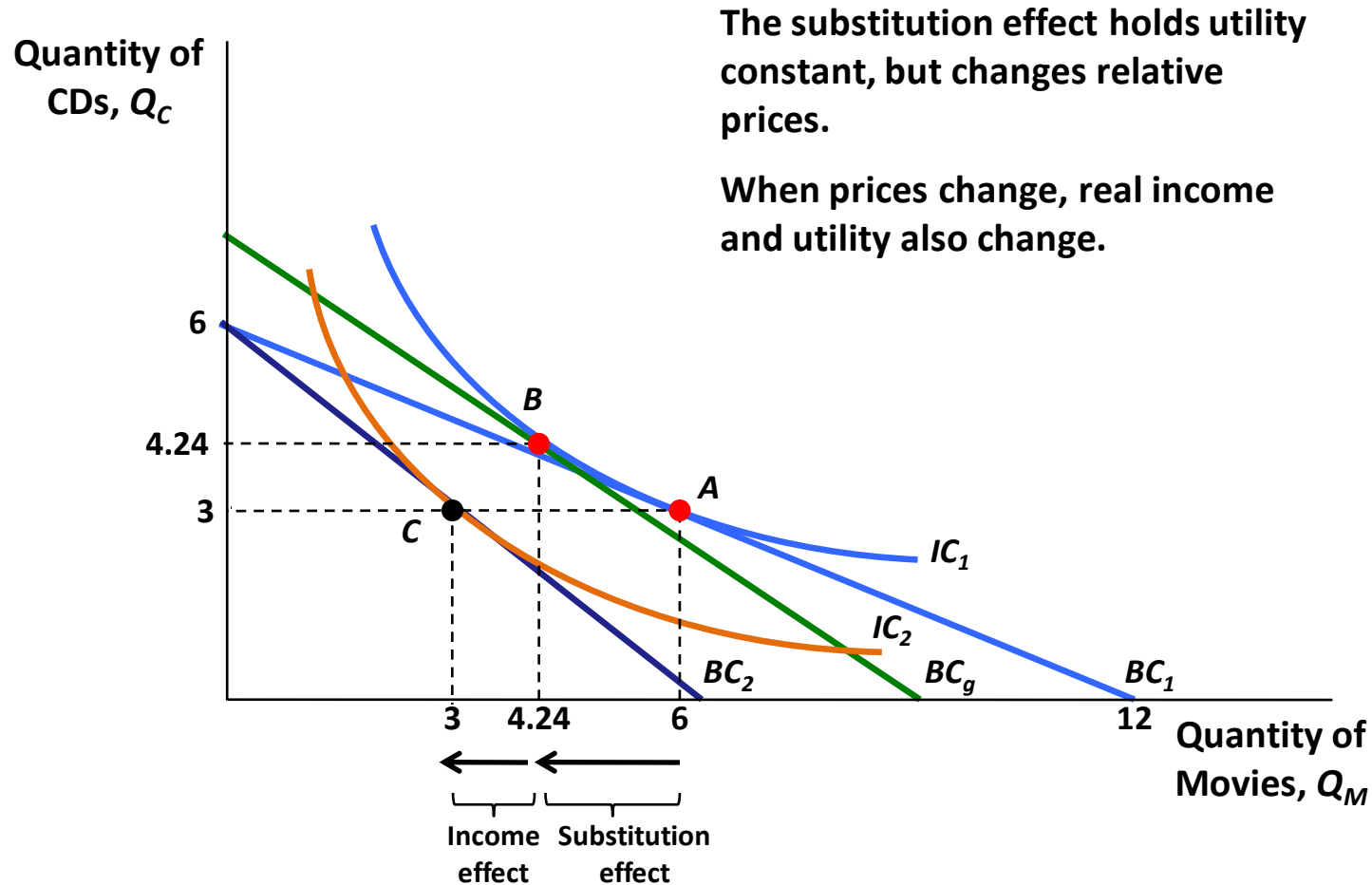
2.1

Putting It All Together: Constrained Choice



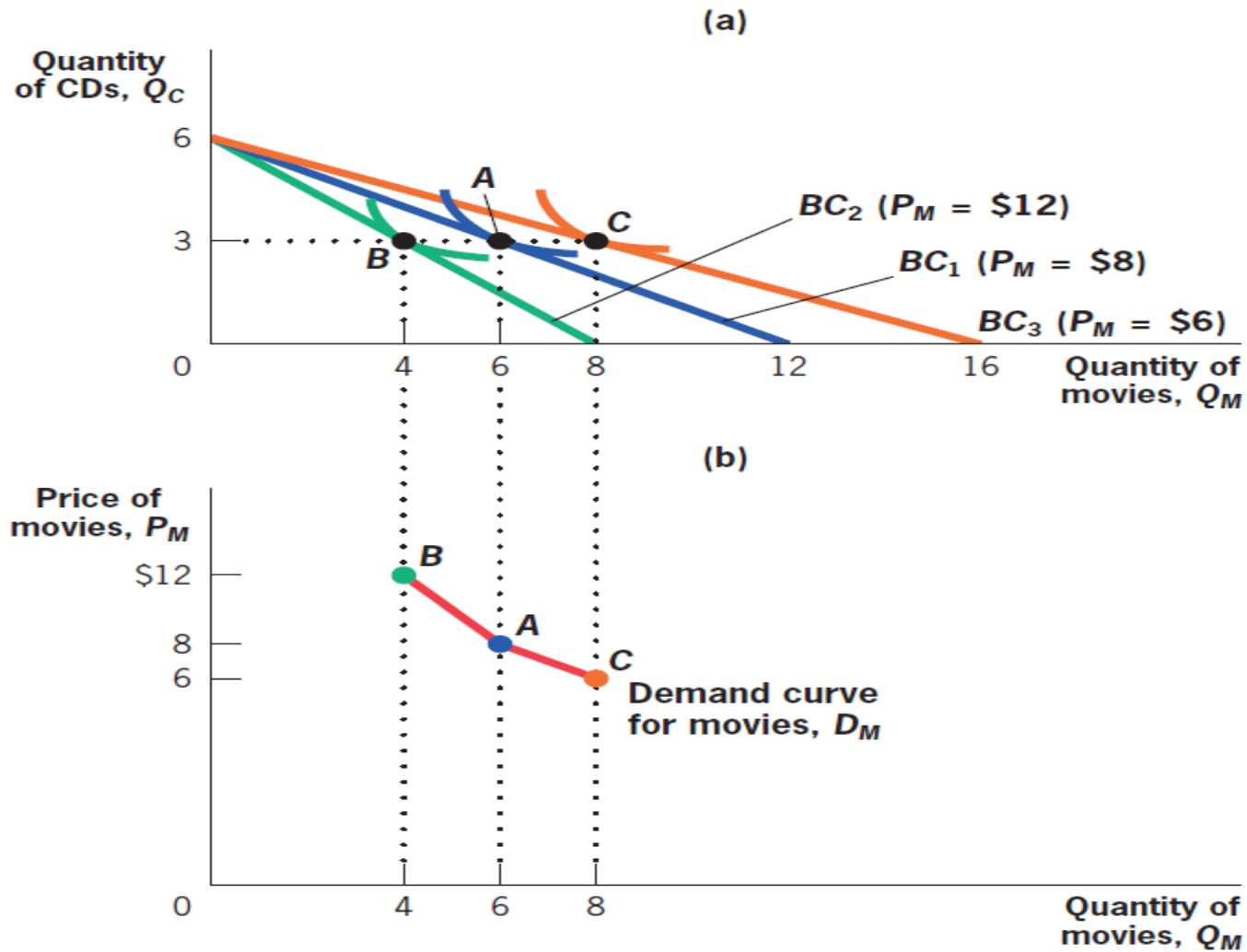
2.1

The Effects of Price Changes: Substitution and Income Effects



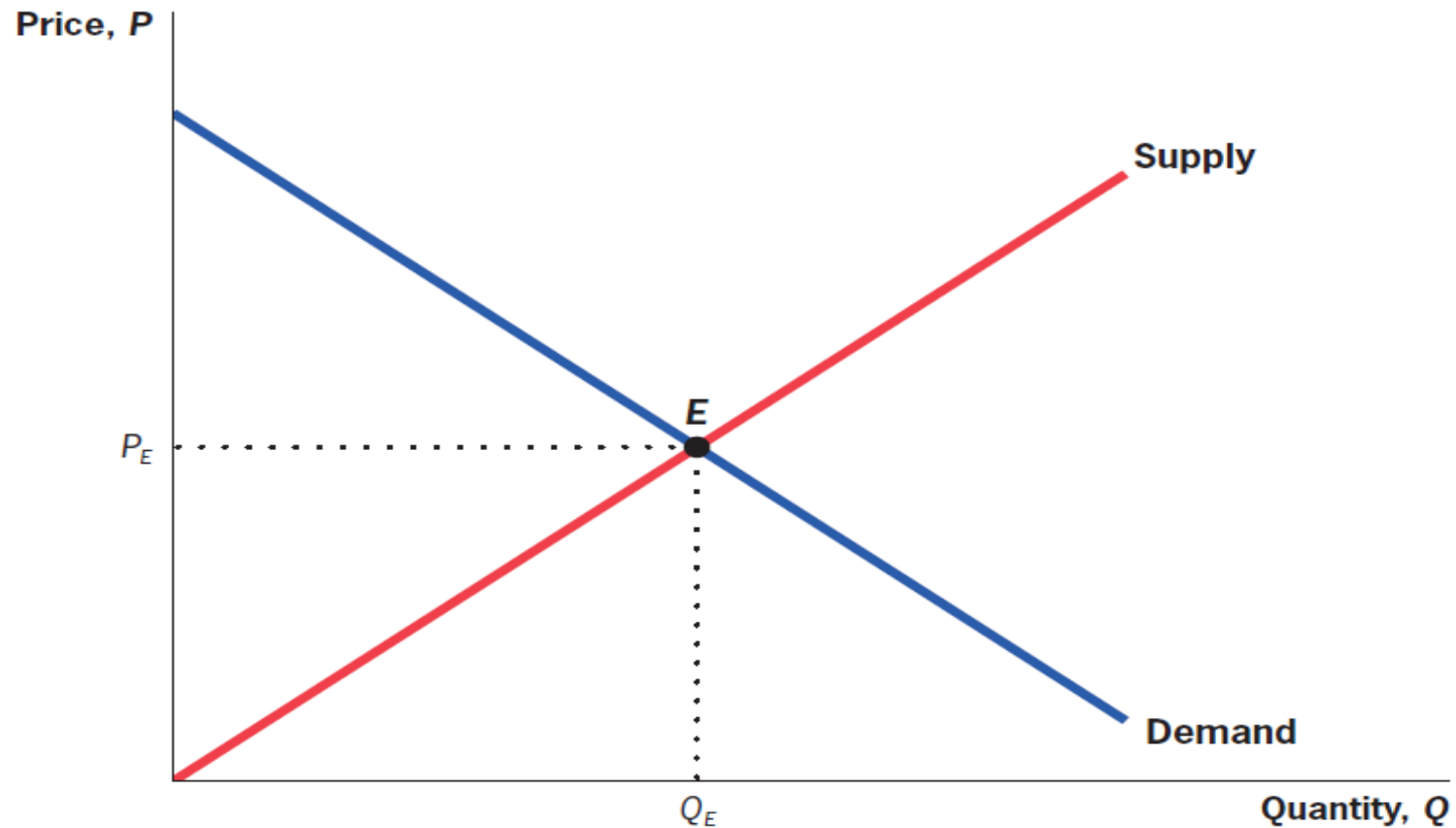
2.3

Demand Curves



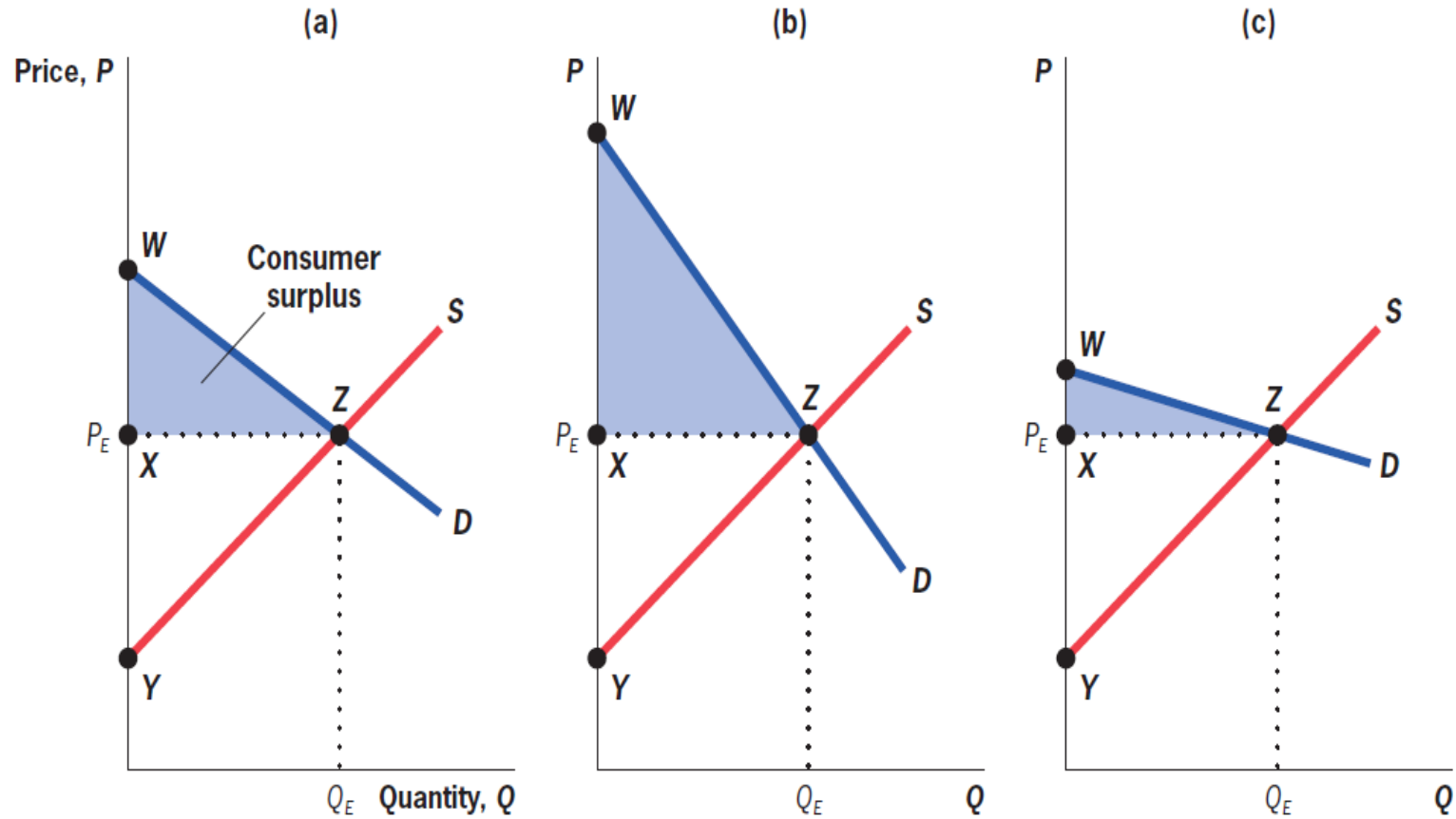
2.3

Equilibrium: Graphical Representation



2.3

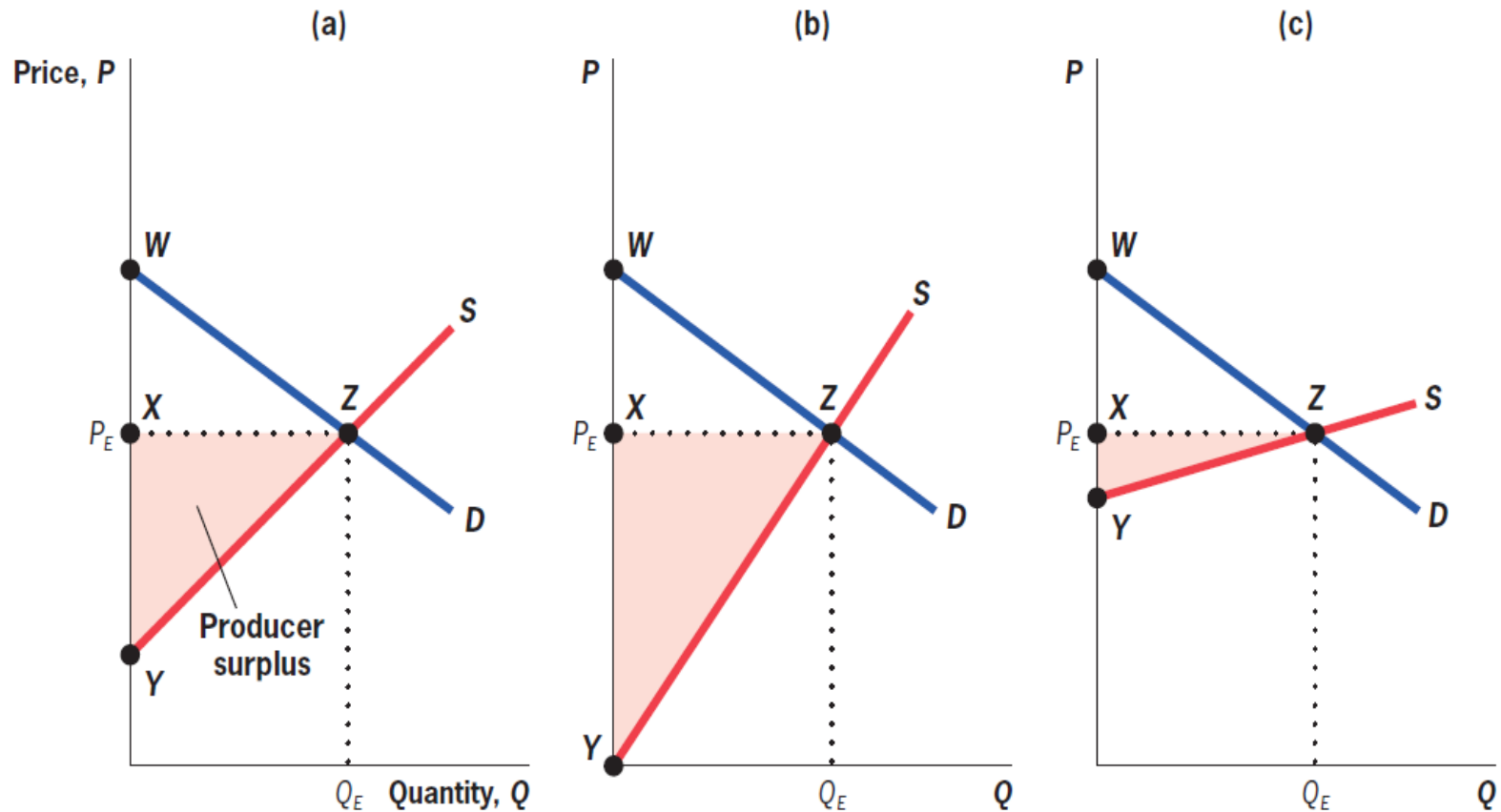
Consumer Surplus: Graphical Representation



- Consumer surplus is the area under the demand curve since demand = willingness to pay.

2.3

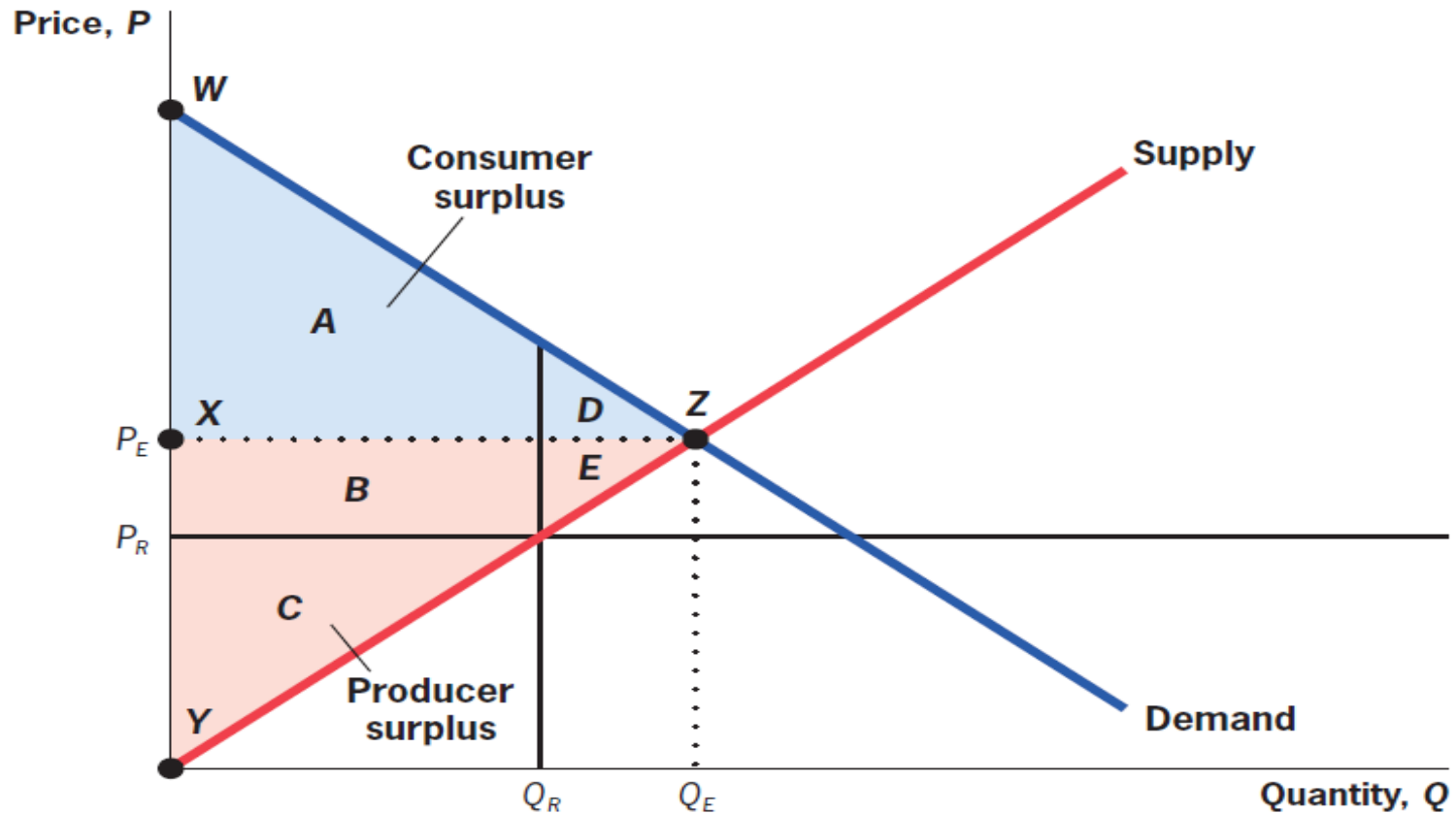
Producer Surplus: Graphical Representation



- Producer surplus is the area above the supply curve since supply = marginal cost.

2.3

Social Surplus: Graphical Representation



Which of the following two individuals do you think is most deserving of a \$1,000 tax break?

Individual A earns \$50,000 per year, pays \$10,000 in taxes and hence nets out \$40,000. She greatly enjoys spending money, going out to expensive restaurants, or traveling to fancy destinations. She always feels that she has too little money to spend.

Individual B earns the same amount, \$50,000 per year, also pays \$10,000 in taxes and hence also nets out \$40,000. However, she is a very frugal person who feels that her current income is sufficient to satisfy her needs.

-
- Individual A is most deserving of the \$1,000 tax break
 - Individual B is most deserving of the \$1,000 tax break
 - Both individuals are exactly equally deserving of the tax \$1,000 break

>>

Which of the following two individuals is most deserving of a \$1,000 tax break?

Individual A earns \$30,000 per year, by working in two different jobs, 60 hours per week at \$10/hour. She pays \$6,000 in taxes and nets out \$24,000. She is very hard-working but she does not have high-paying jobs so that her wage is low.

Individual B also earns the same amount, \$30,000 per year, by working part-time for 20 hours per week at \$30/hour. She also pays \$6,000 in taxes and hence nets out \$24,000. She has a good wage rate per hour, but she prefers working less and earning less to enjoy other, non-work activities.

-
- Individual A is most deserving of the \$1,000 tax break
 - Individual B is most deserving of the \$1,000 tax break
 - Both individuals are exactly equally deserving of the \$1,000 tax break

>>

We assume now that the government can increase benefits by \$1,000 for some recipients of government benefits.

Which of the following four individuals is most deserving of the \$1,000 increase in benefits?

Please drag and drop the four individuals into the appropriate boxes on the left. The upper box, marked 1 should contain the individual you think is most deserving. The box labeled "2" should contain the second most-deserving individual, etc.. Please note that you can put two individuals in the same box if you think that they are equally deserving.

Individual A gets \$15,000 per year in Disability Benefits because she cannot work due to a disability and has no other resources.

Individual B gets \$15,000 per year in Unemployment Benefits and has no other resources. She lost her job and has not been able to find a new job even though she has been actively looking for one.

Individual C gets \$15,000 per year in Unemployment Benefits and has no other resources. She lost her job but has not been looking actively for a new job, because she prefers getting less but not having to work.

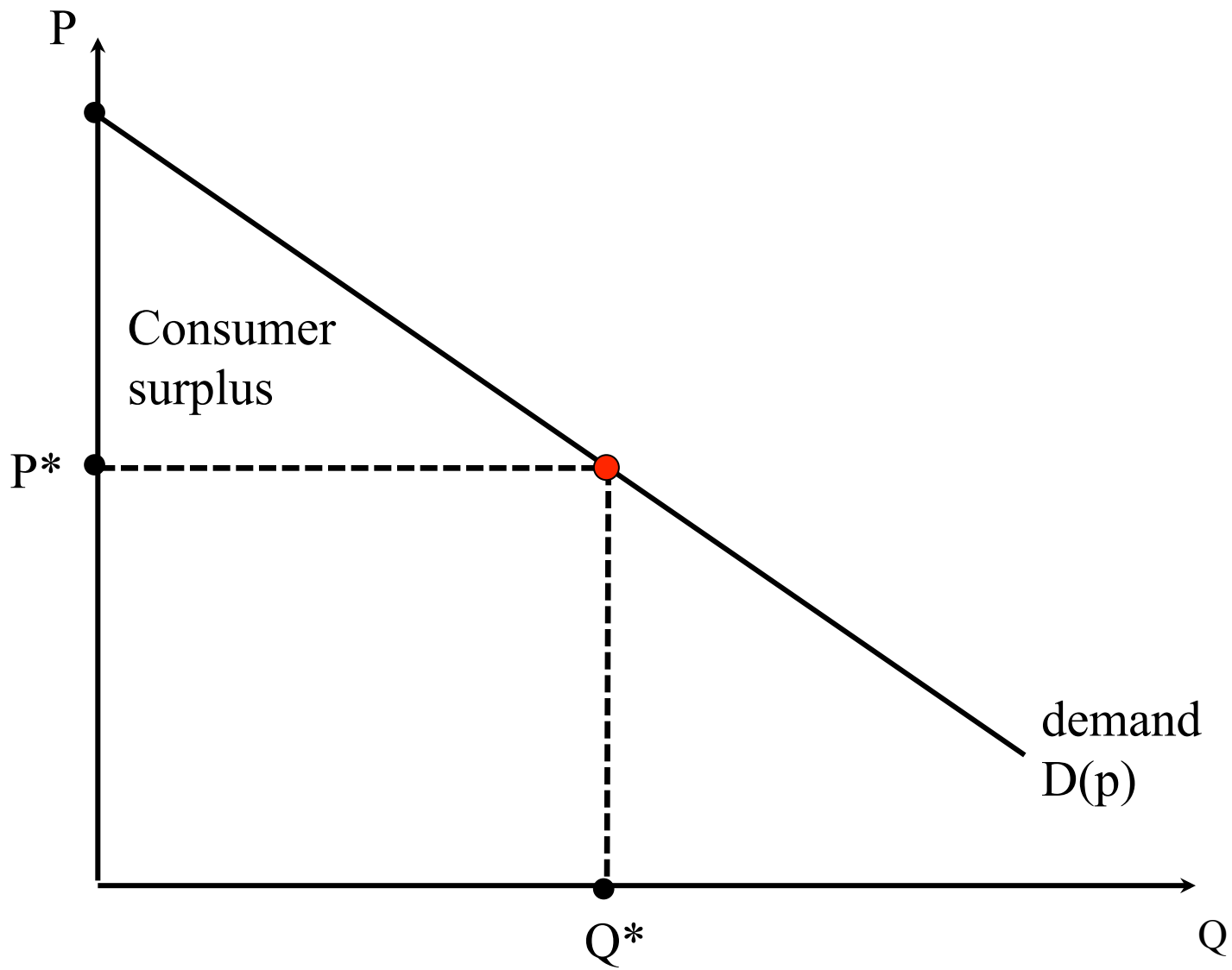
Individual D gets \$15,000 per year in Welfare Benefits and Food Stamps and has no other resources. She is not looking for a job actively because she can get by living off those government provided benefits.

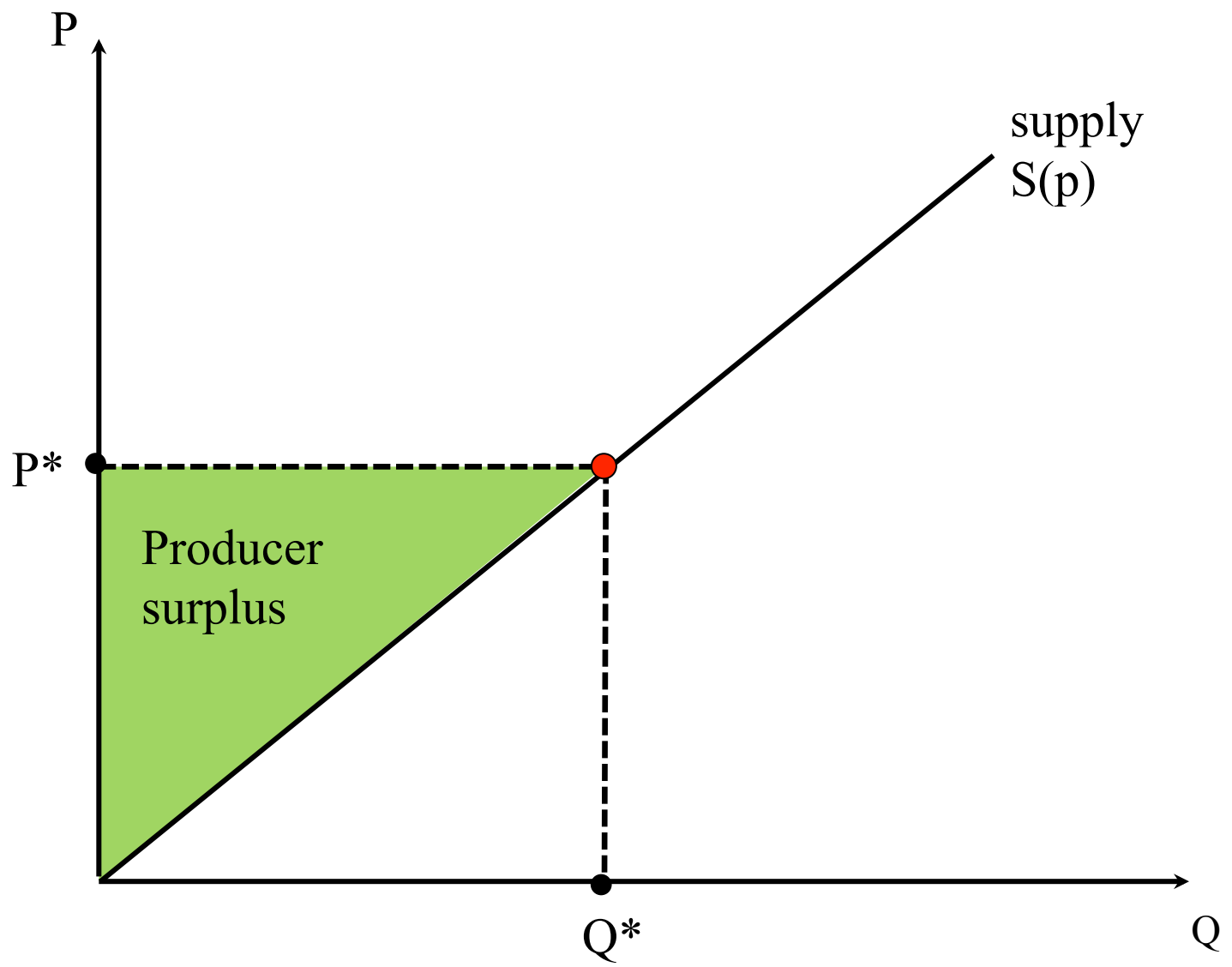
Source: survey in Saez and Stantcheva (2013)

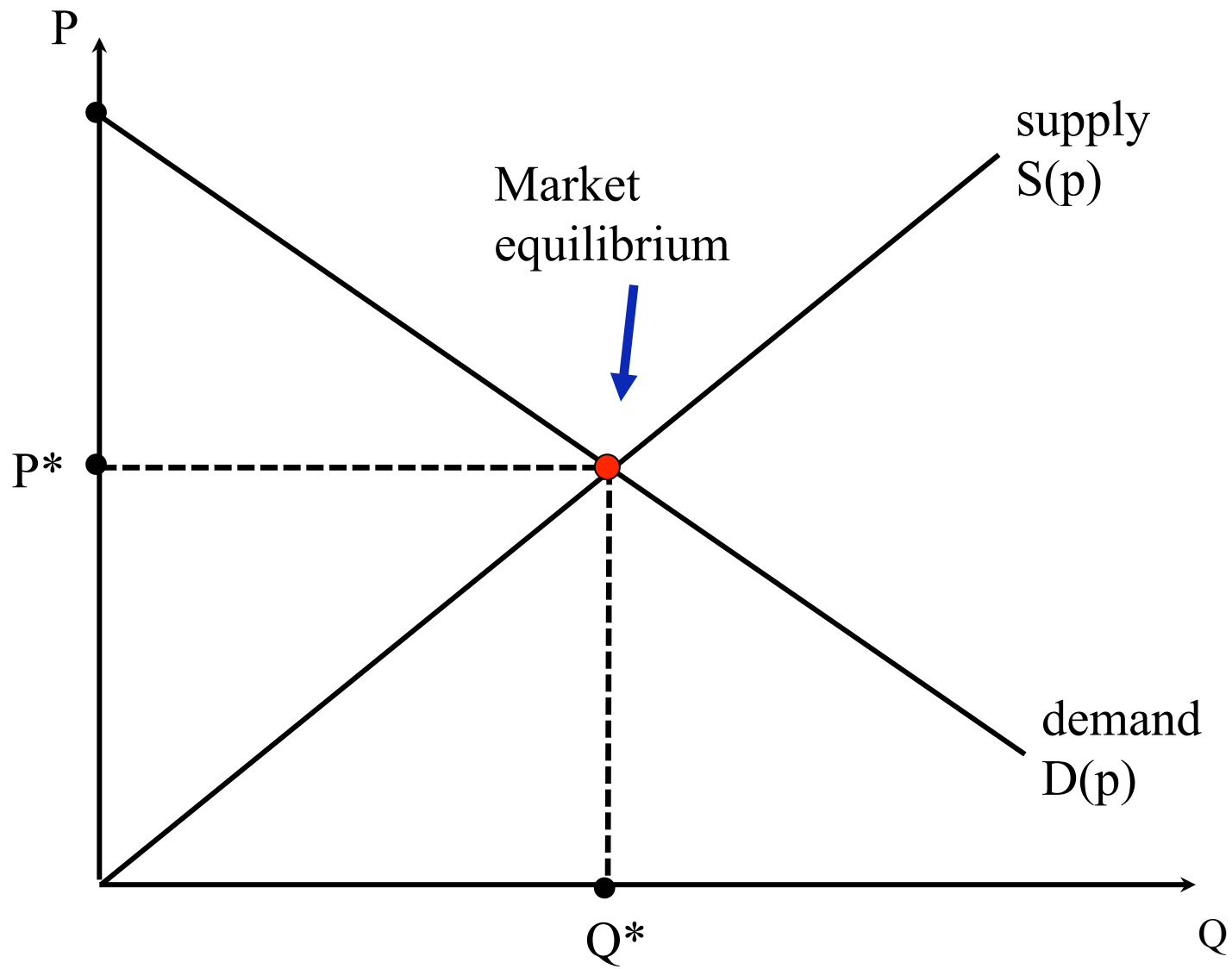
Table 2: Revealed Social Preferences

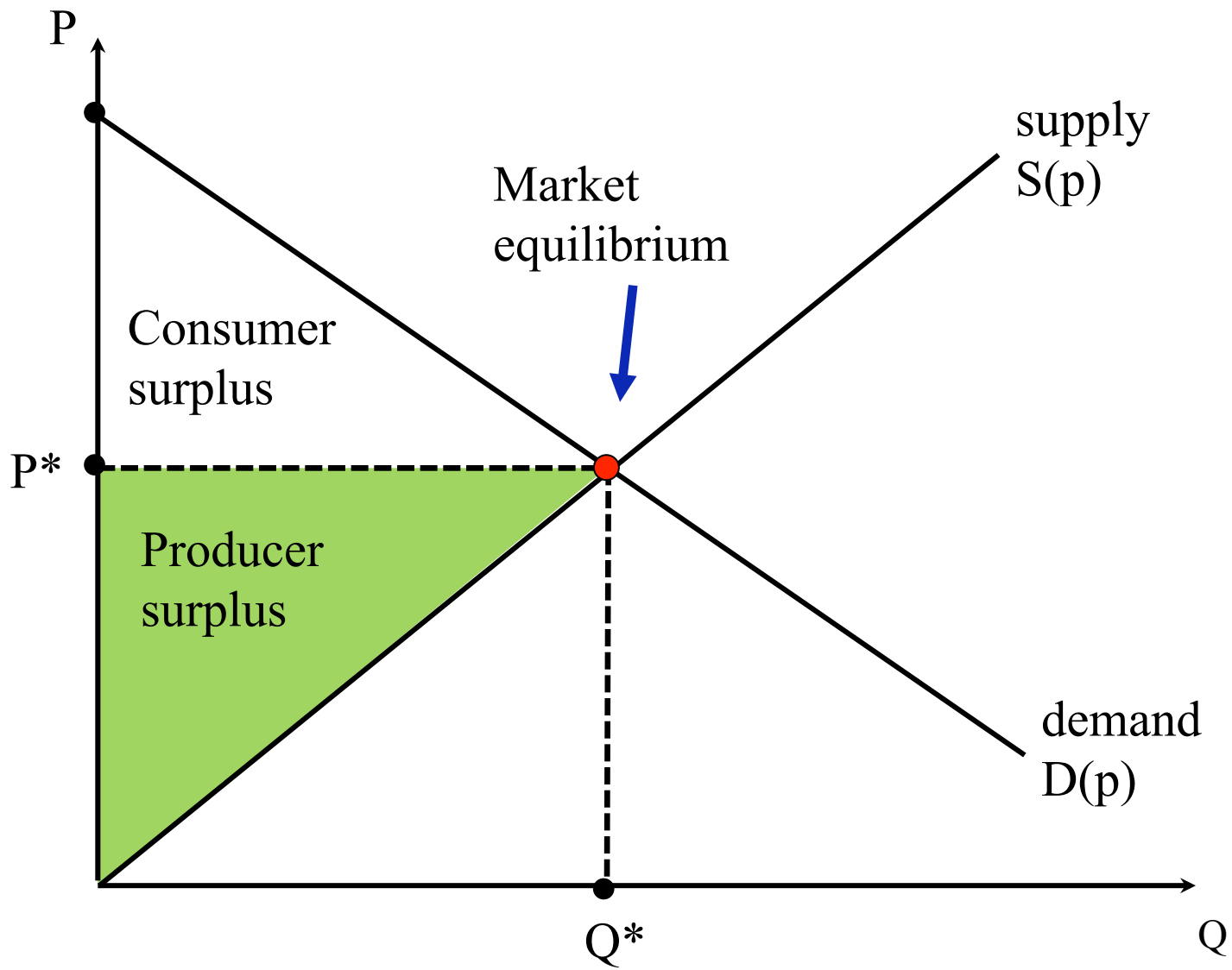
	(1)	(2)	(3)	(4)
A. Consumption lover vs. Frugal				
	Consumption lover > Frugal	Consumption lover = Frugal	Consumption lover < Frugal	
# obs. = 1,125	4.1%	74.4%	21.5%	
B. Hardworking vs. leisure lover				
	Hardworking > Leisure lover	Hardworking = Leisure lover	Hardworking < Leisure lover	
# obs. = 1,121	42.7%	54.4%	2.9%	
C. Transfer Recipients and free loaders				
	Disabled person unable to work	Unemployed looking for work	Unemployed not looking for work	Welfare recipient not looking for work
# obs. = 1,098				
Average rank (1-4) assigned	1.4	1.6	3.0	3.5
% assigned first rank	57.5%	37.3%	2.7%	2.5%
% assigned last rank	2.3%	2.9%	25.0%	70.8%

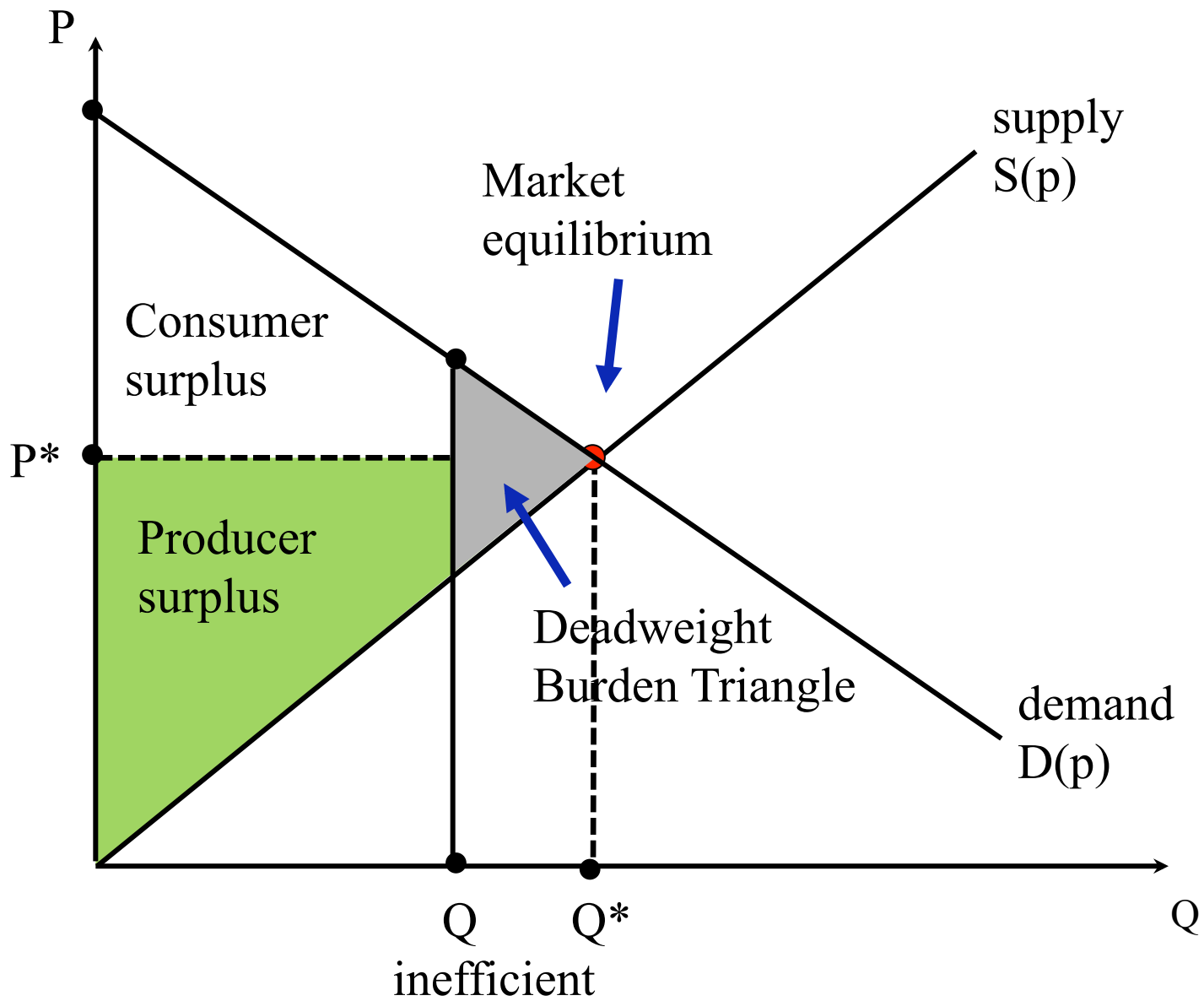
Notes: This table reports preferences for giving a tax break and or a benefit increase across individuals in various scenarios. Panel A considers two individuals with the same earnings, same taxes, and same disposable income but high marginal utility of income (consumption lover) vs. low marginal utility of income (frugal). In contrast to utilitarianism, 74% of people report that consumption loving is irrelevant and 21.5% think the frugal person is most deserving. Panel B considers two individuals with the same earnings, same taxes, and same disposable income but different wage rates and hence different work hours. 54.4% think hours of work is irrelevant and 42.7% think the hardworking low wage person is more deserving. Panel C considers transfer recipients receiving the same benefit levels. Subjects find the disabled person unable to work and the unemployed person looking for work much more deserving than the abled bodied unemployed or welfare recipient not looking for work.





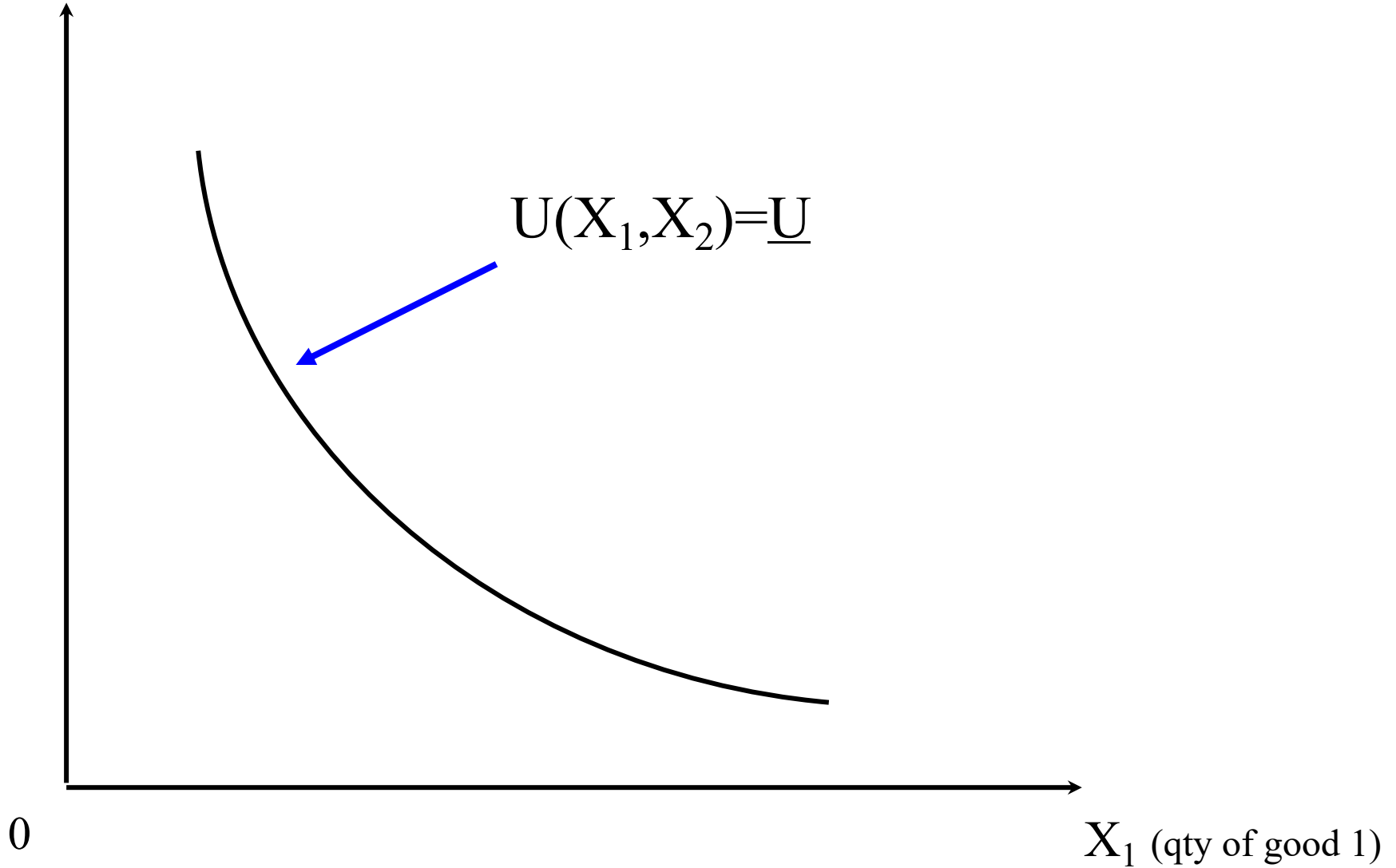






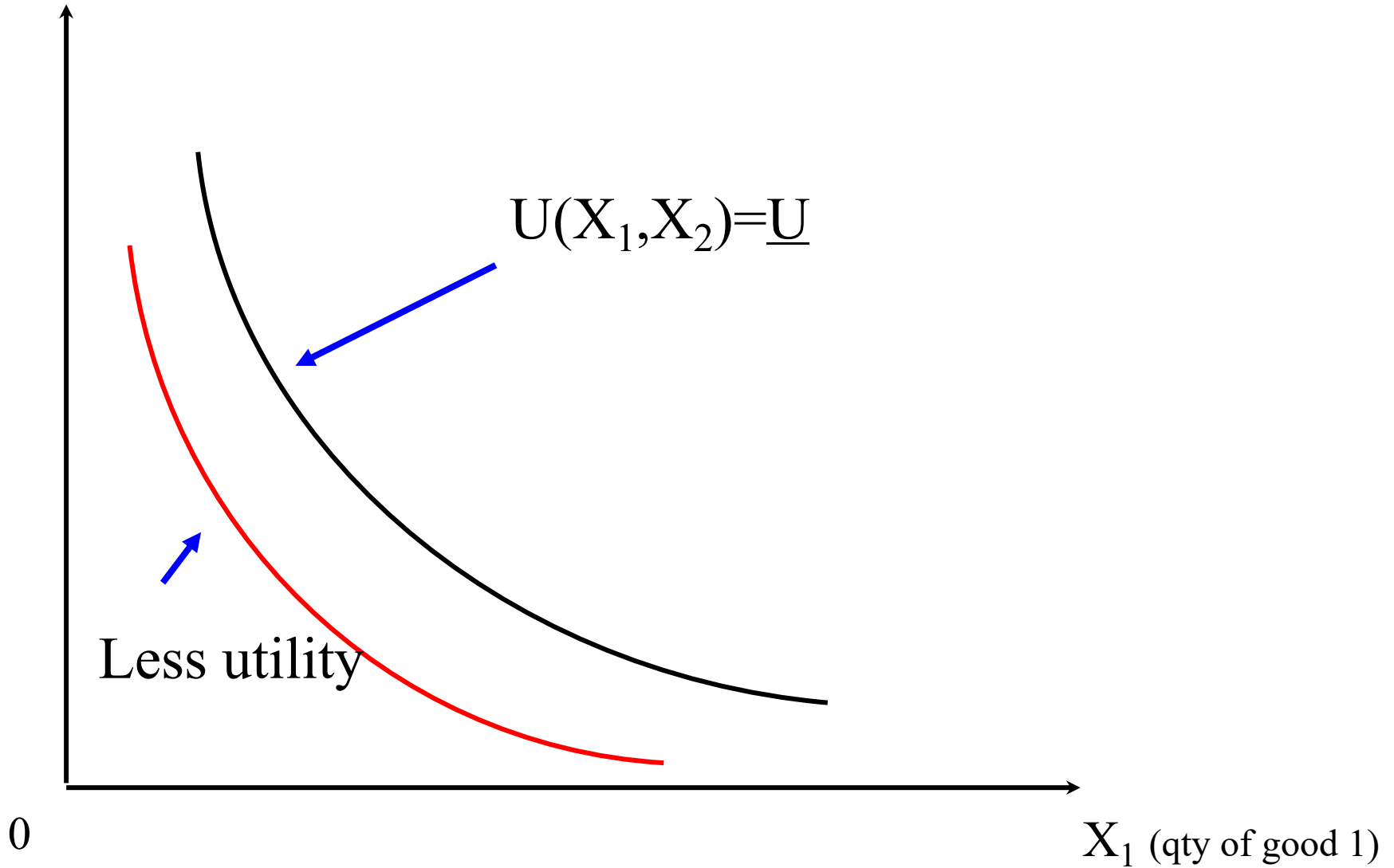
Indifference Curve

X_2 (qty of good 2)



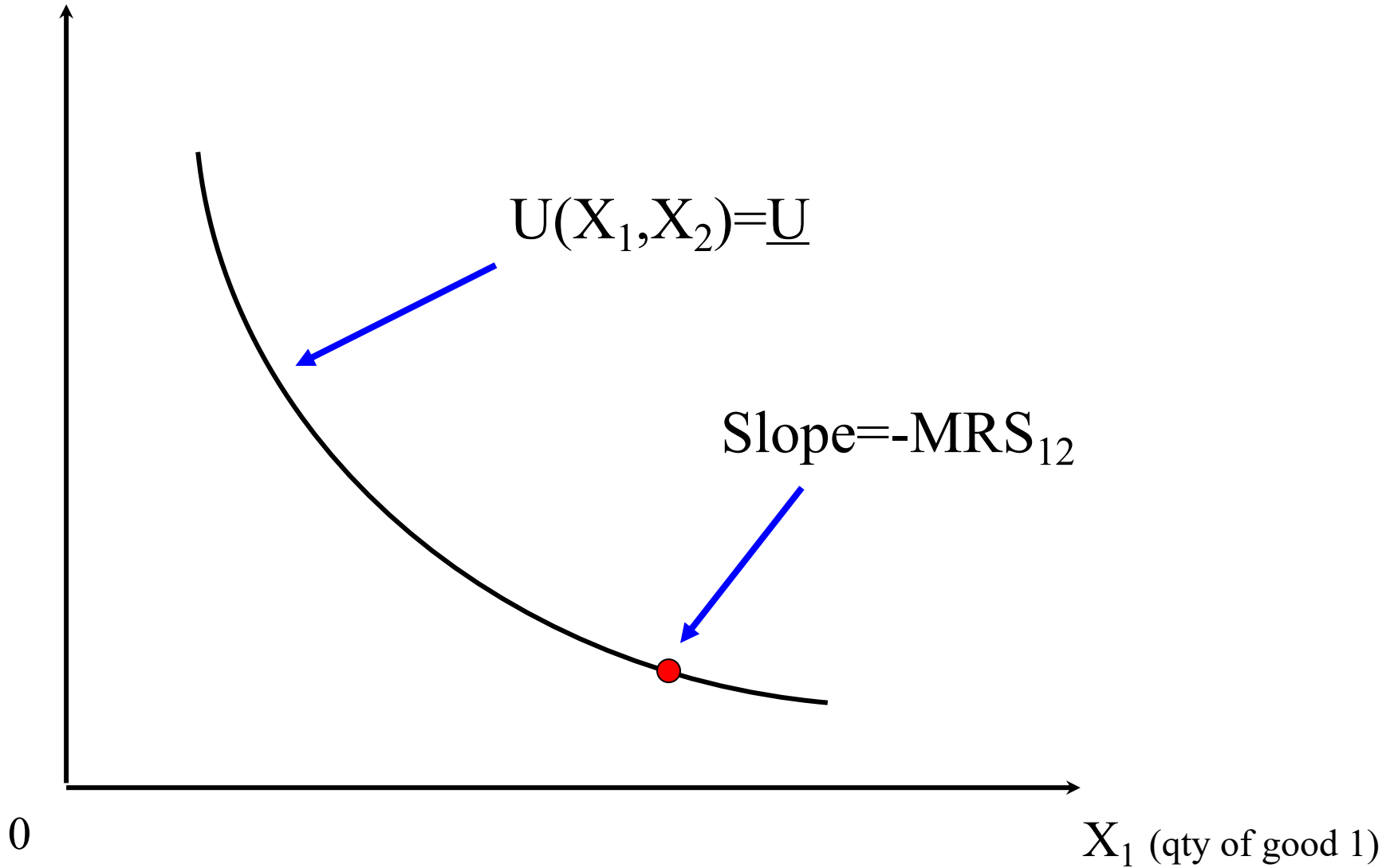
Indifference Curve

X_2 (qty of good 2)



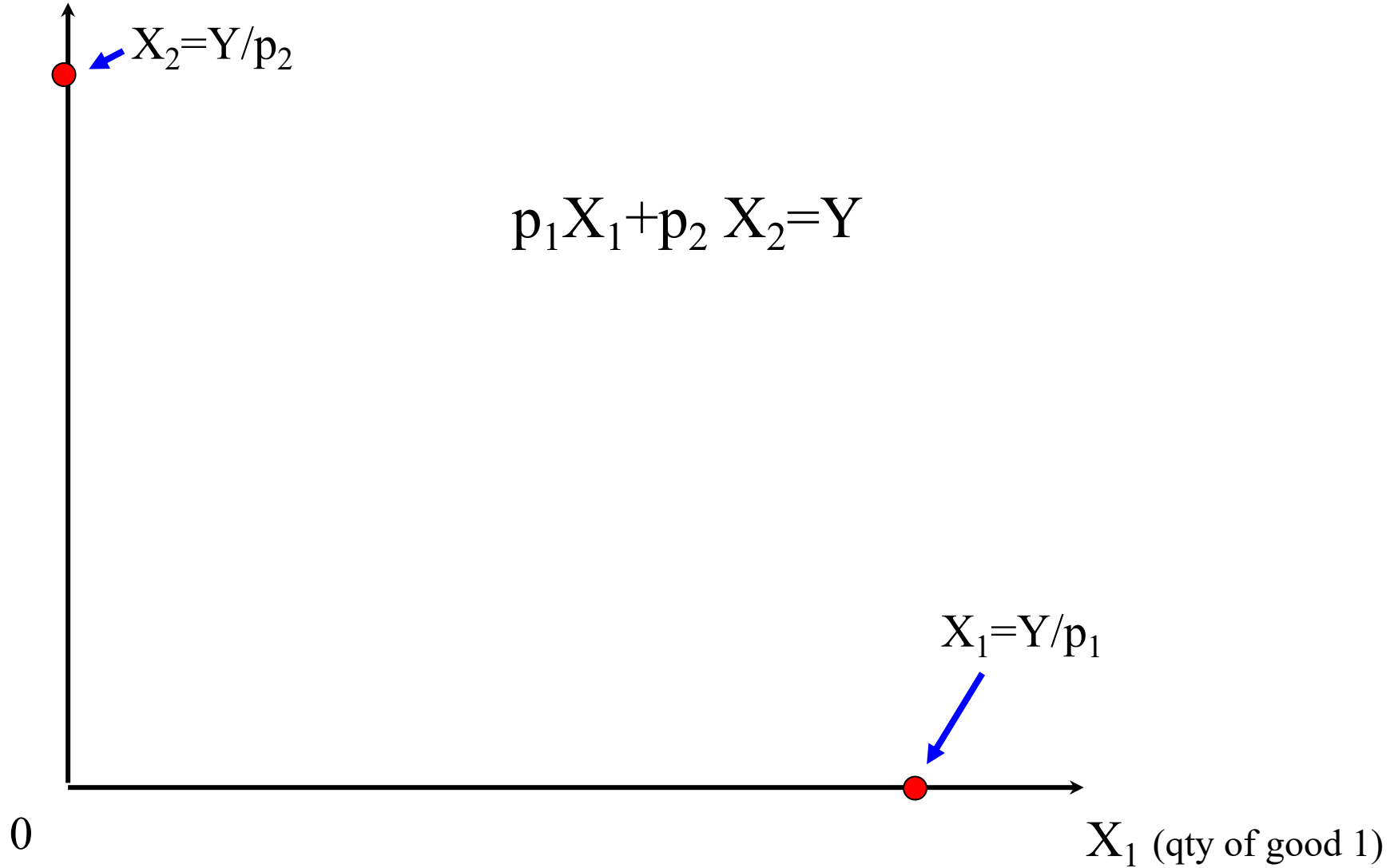
Indifference Curve

X_2 (qty of good 2)



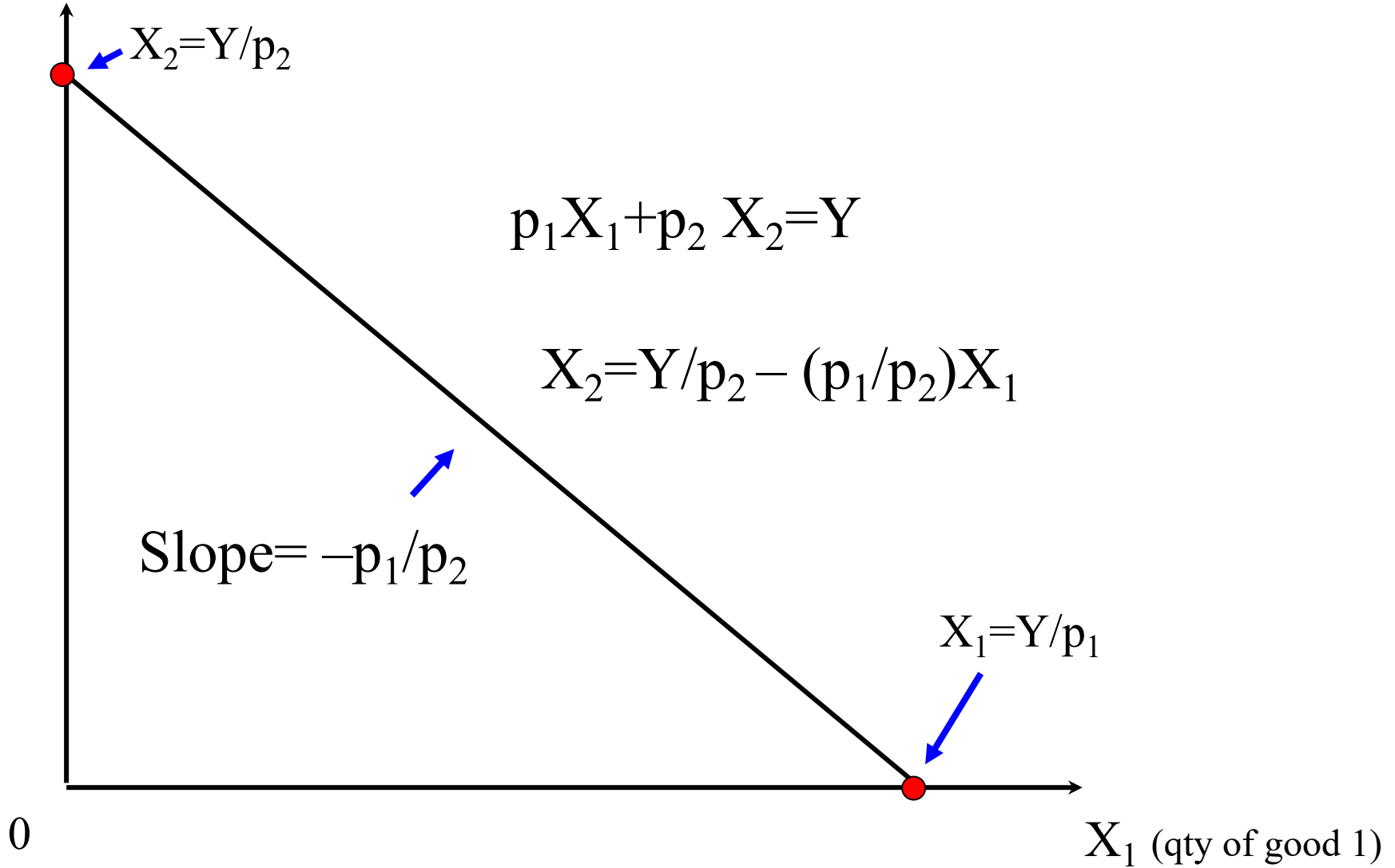
Budget constraint

X_2 (qty of good 2)



Budget constraint

X_2 (qty of good 2)



Utility maximization

X_2 (qty of good 2)

$$\begin{aligned} &\text{Max } U(X_1, X_2) \\ &\text{subject to } p_1 X_1 + p_2 X_2 = Y \end{aligned}$$



Budget: $p_1 X_1 + p_2 X_2 = Y$

0

X_1 (qty of good 1)

Utility maximization

X_2 (qty of good 2)

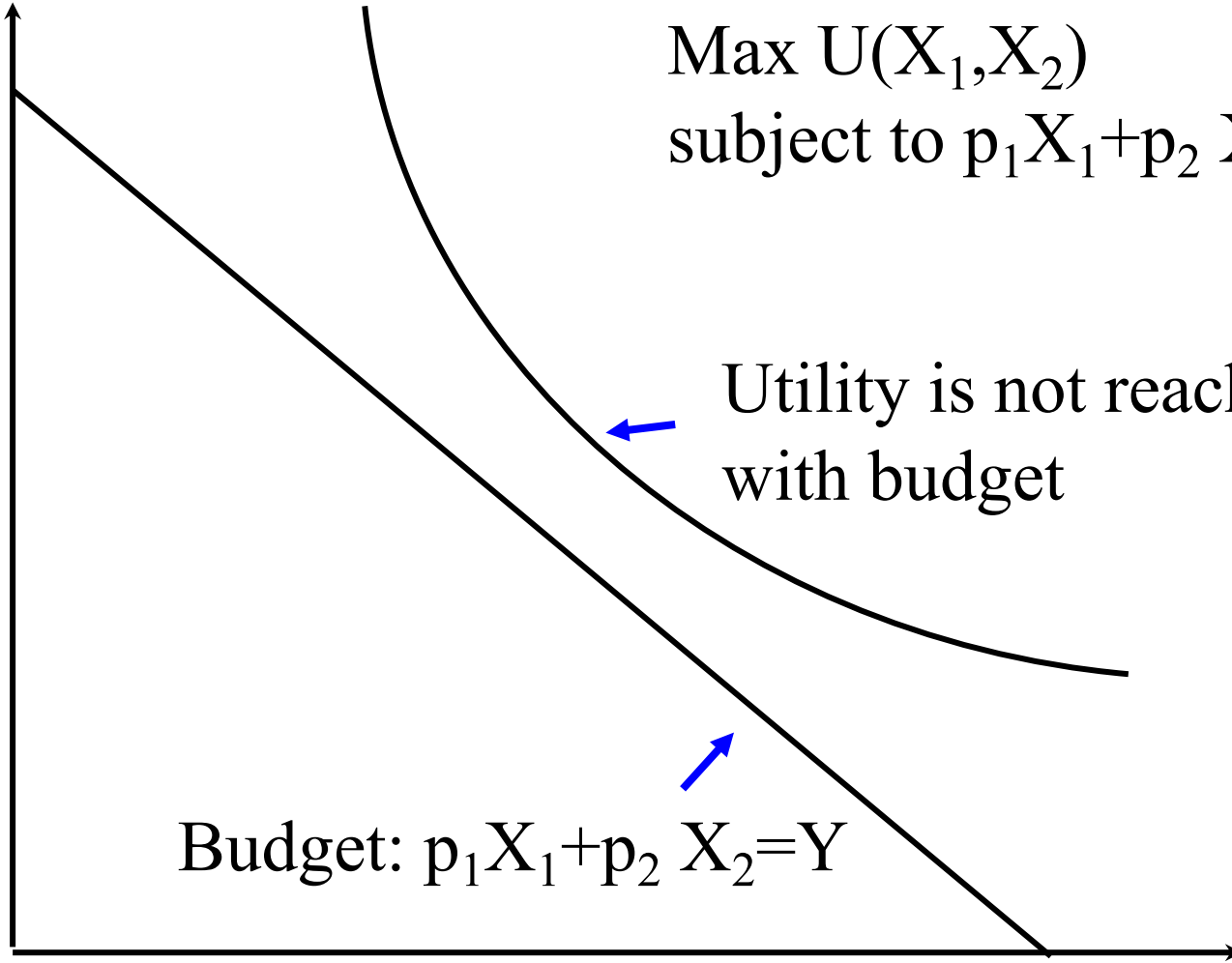
$$\begin{aligned} &\text{Max } U(X_1, X_2) \\ &\text{subject to } p_1 X_1 + p_2 X_2 = Y \end{aligned}$$

Utility is not reachable
with budget

$$\text{Budget: } p_1 X_1 + p_2 X_2 = Y$$

0

X_1 (qty of good 1)



Utility maximization

X_2 (qty of good 2)

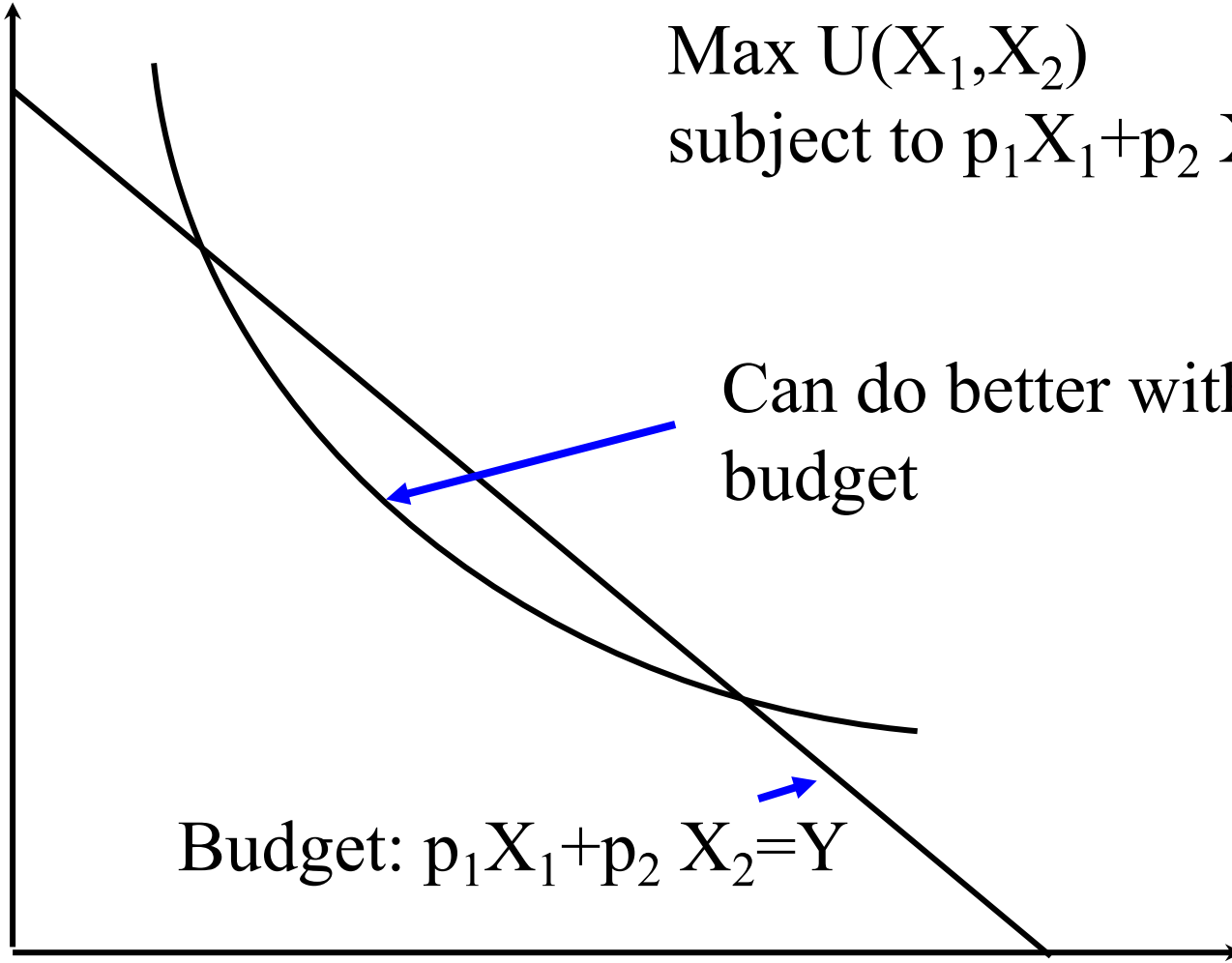
$$\begin{aligned} &\text{Max } U(X_1, X_2) \\ &\text{subject to } p_1 X_1 + p_2 X_2 = Y \end{aligned}$$

Can do better with budget

Budget: $p_1 X_1 + p_2 X_2 = Y$

0

X_1 (qty of good 1)



Utility maximization

X_2 (qty of good 2)

$$\text{Max } U(X_1, X_2)$$

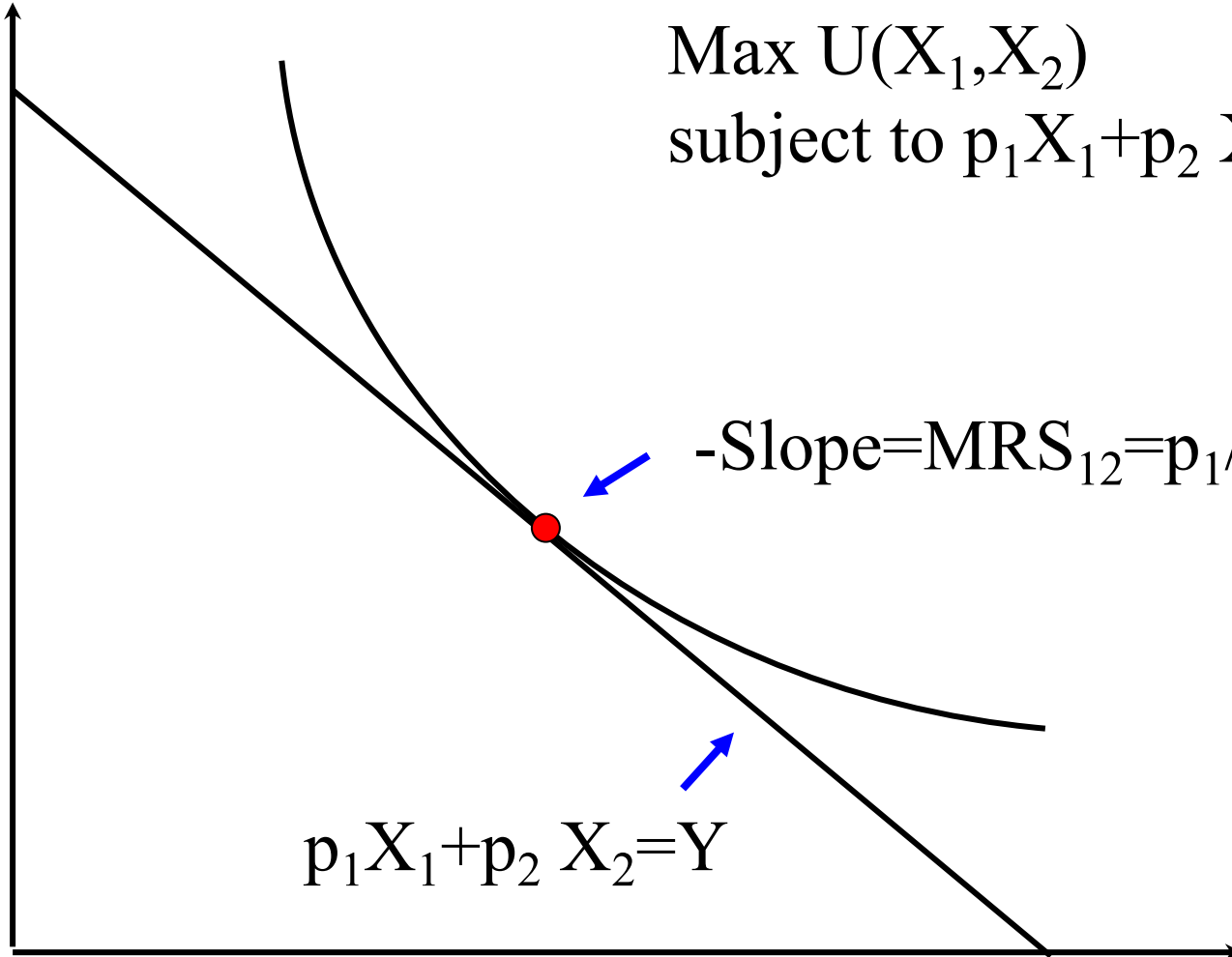
$$\text{subject to } p_1 X_1 + p_2 X_2 = Y$$

$$-\text{Slope} = \text{MRS}_{12} = p_1/p_2$$

$$p_1 X_1 + p_2 X_2 = Y$$

0

X_1 (qty of good 1)

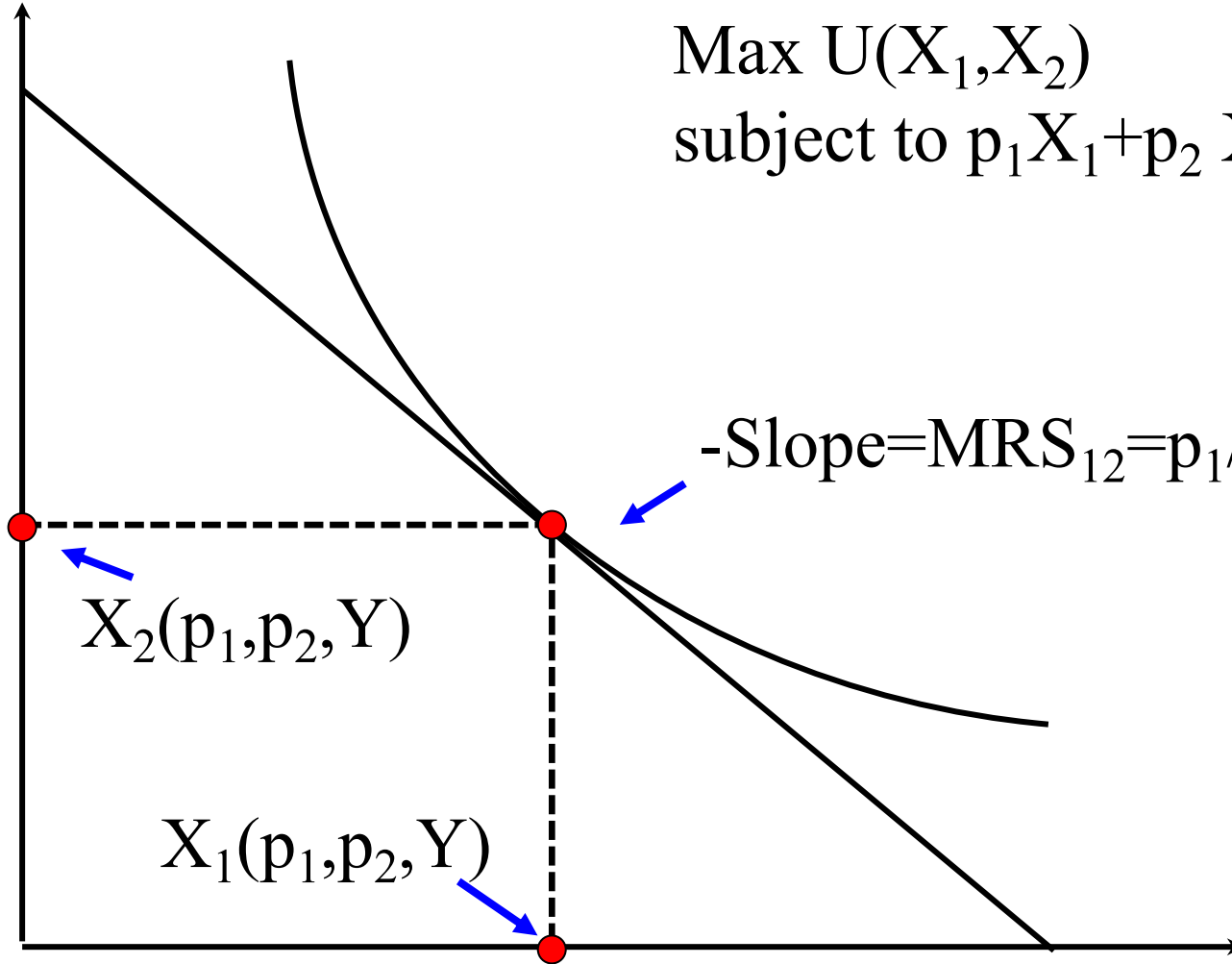


Utility maximization

X_2 (qty of good 2)

$$\begin{aligned} &\text{Max } U(X_1, X_2) \\ &\text{subject to } p_1 X_1 + p_2 X_2 = Y \end{aligned}$$

$$-\text{Slope} = \text{MRS}_{12} = p_1/p_2$$



$$X_2(p_1, p_2, Y)$$

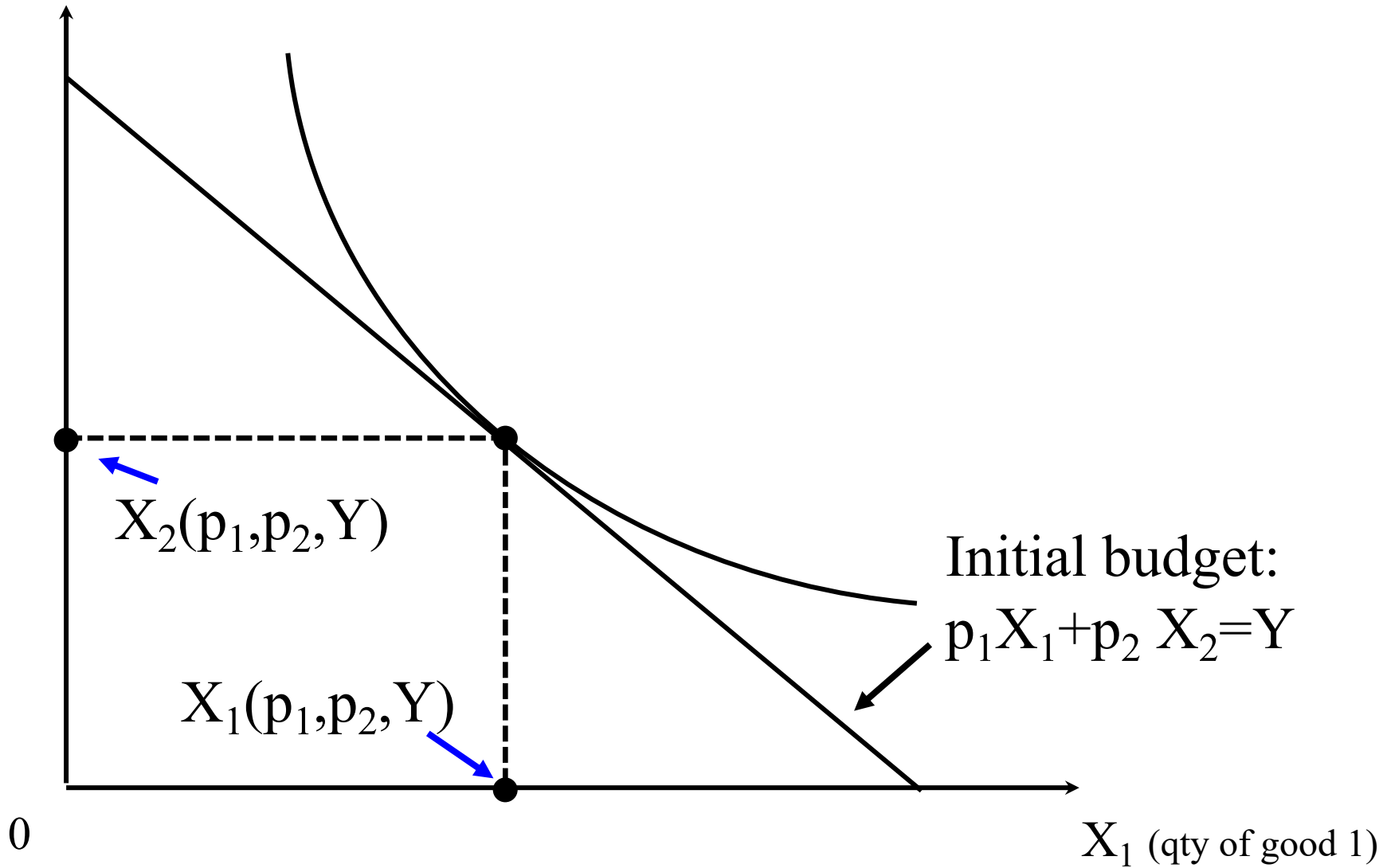
$$X_1(p_1, p_2, Y)$$

0

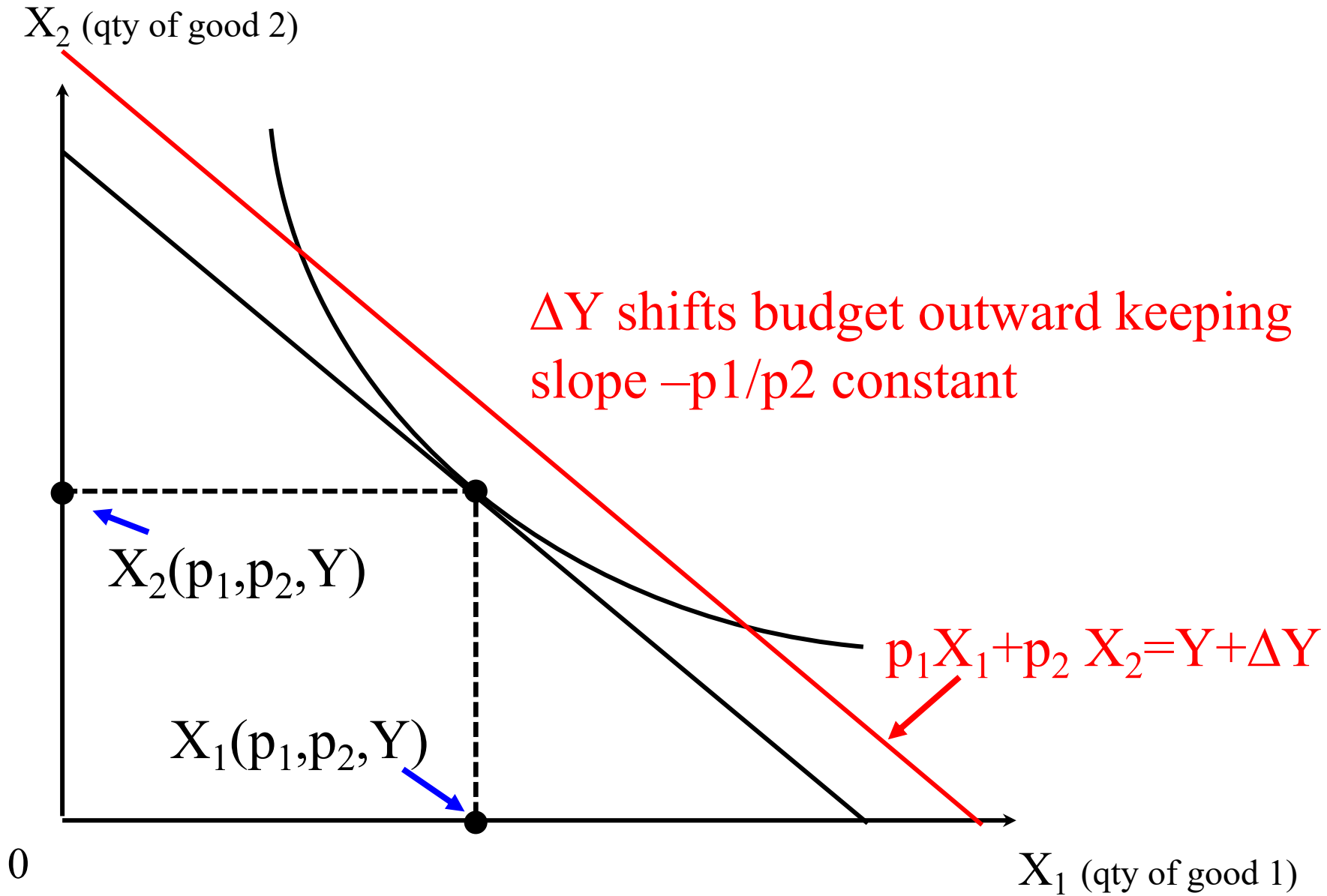
X_1 (qty of good 1)

Income Effects: Y increases to $Y+\Delta Y$

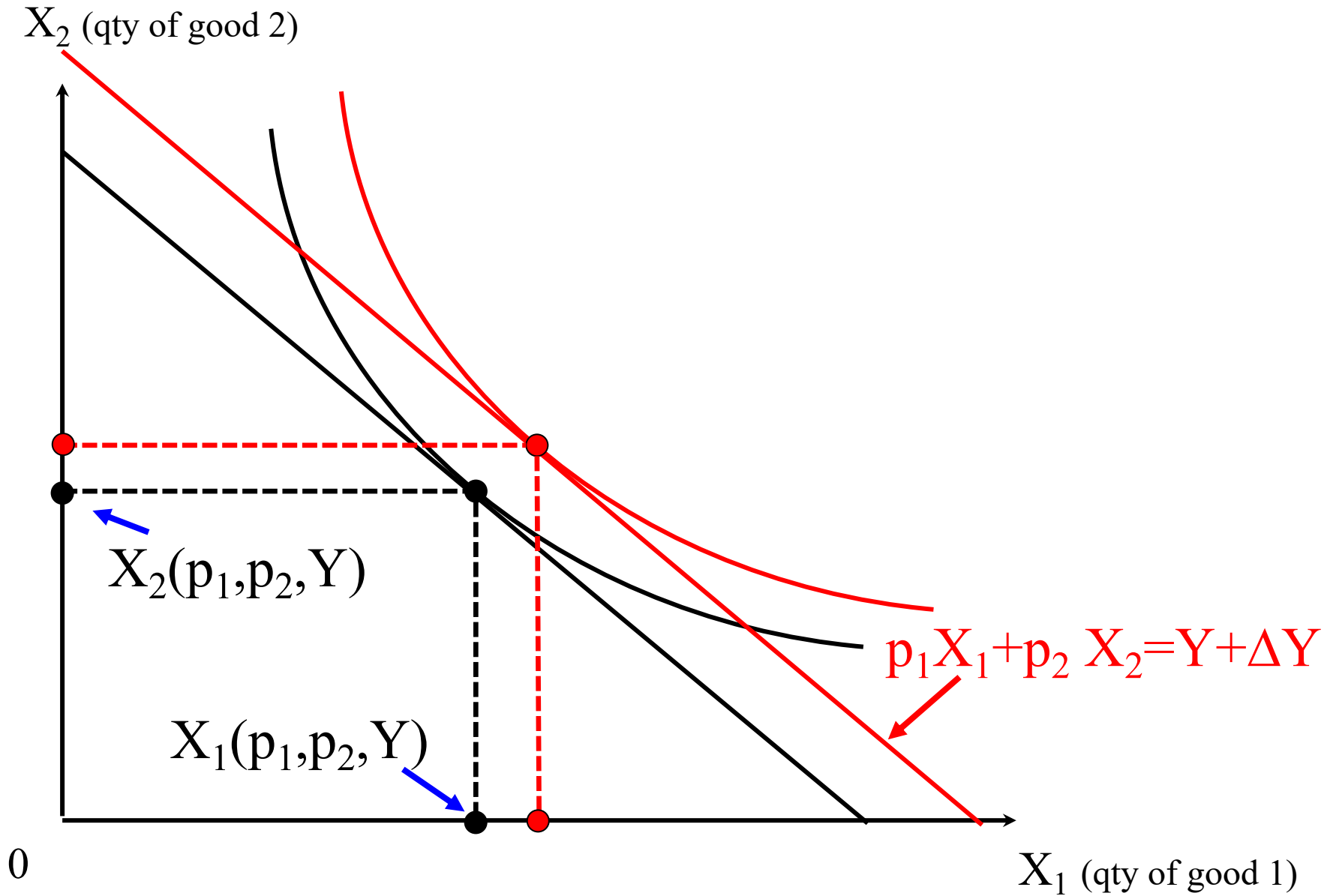
X_2 (qty of good 2)



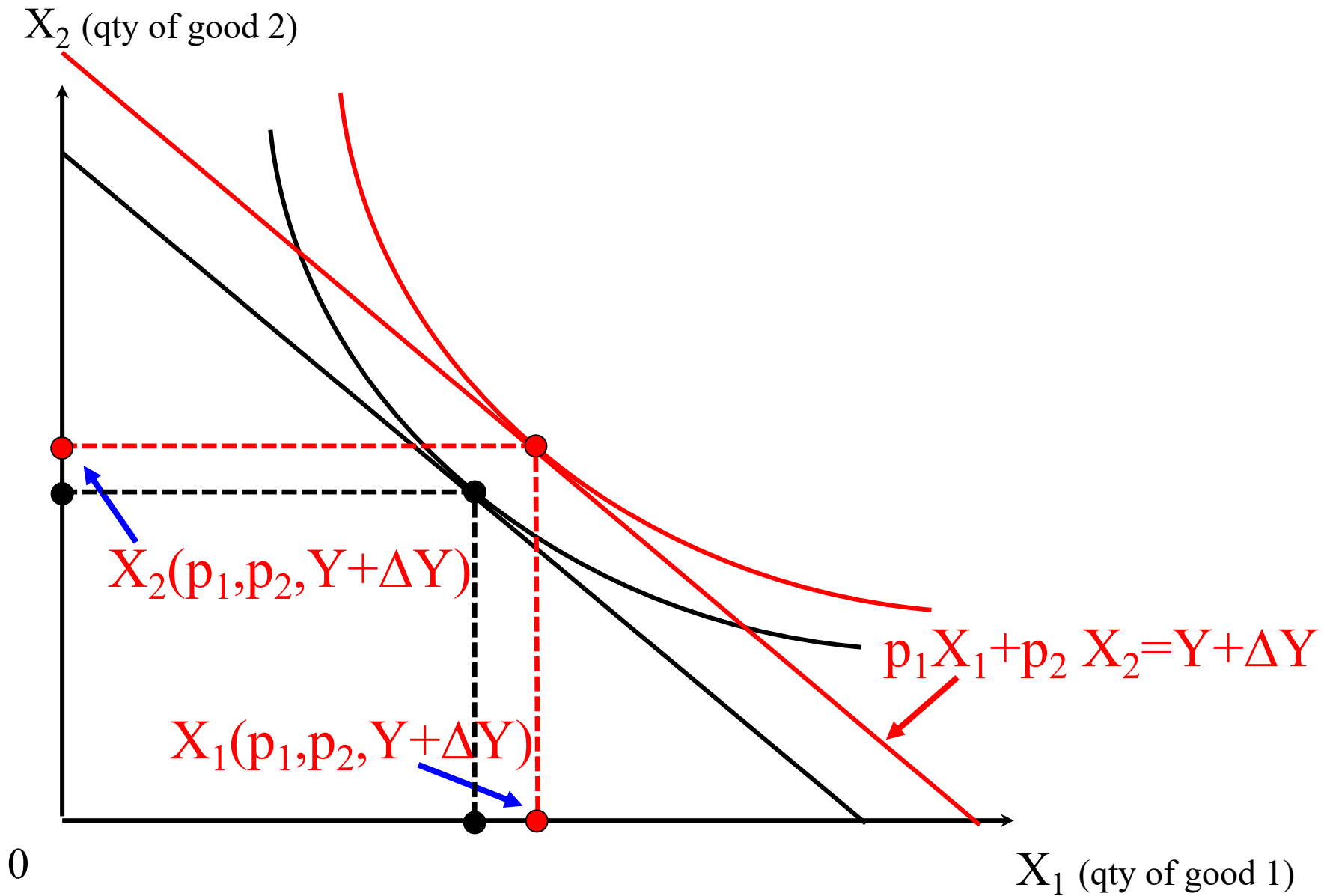
Income Effects: Y increases to $Y+\Delta Y$



Income Effects: Y increases to $Y+\Delta Y$

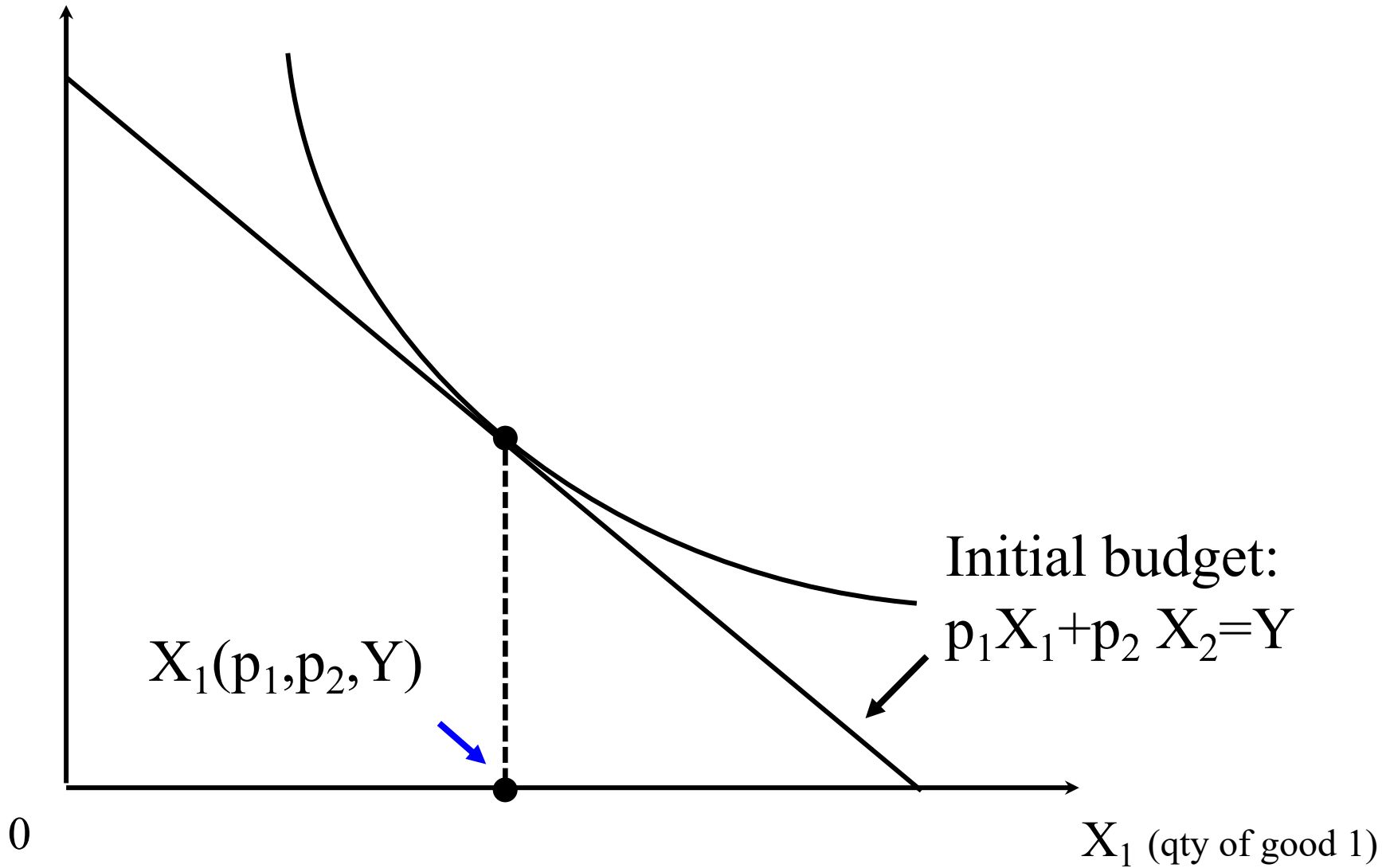


Income Effects: Y increases to $Y+\Delta Y$



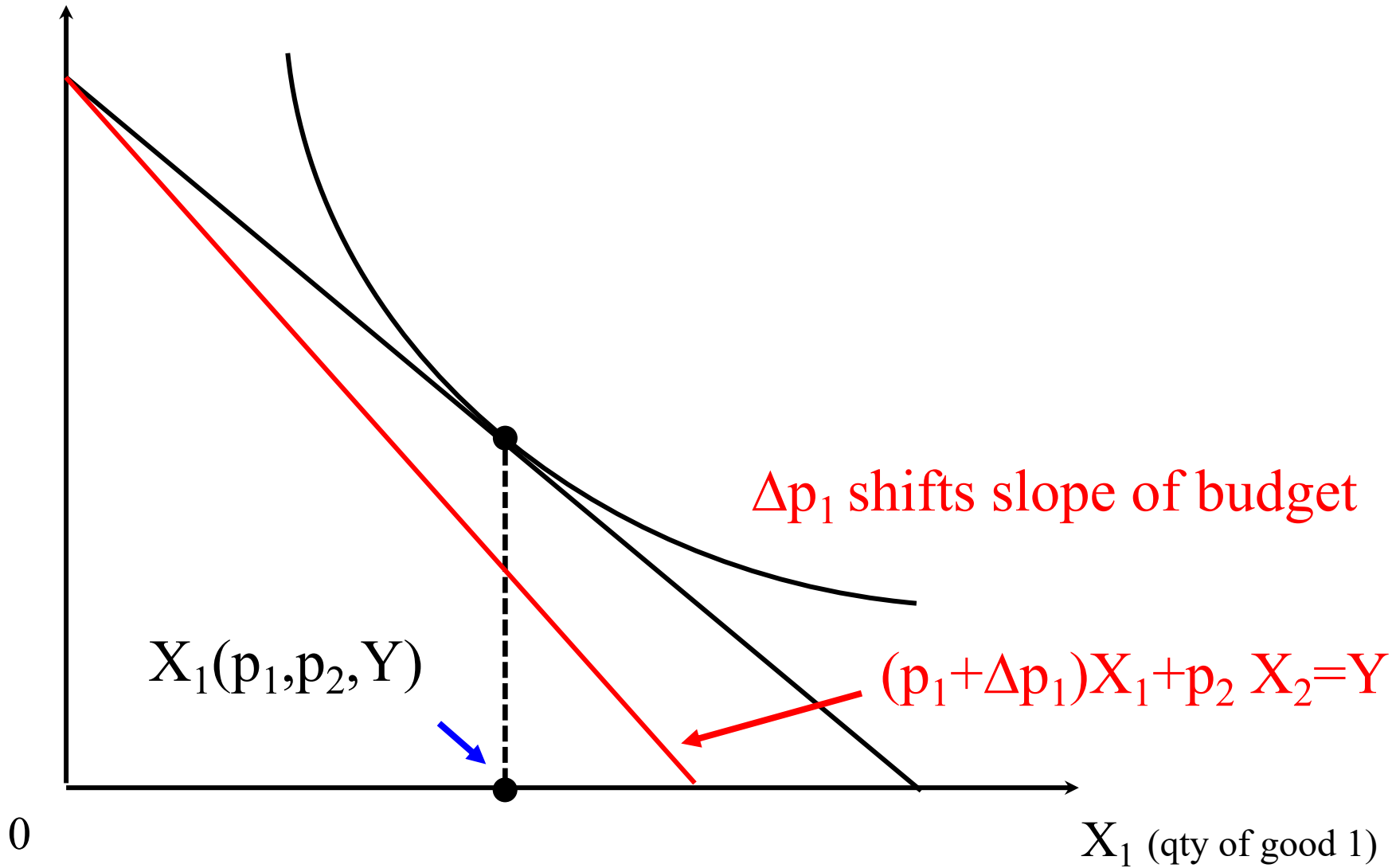
Price Effects: p_1 increases to $p_1 + \Delta p_1$

X_2 (qty of good 2)



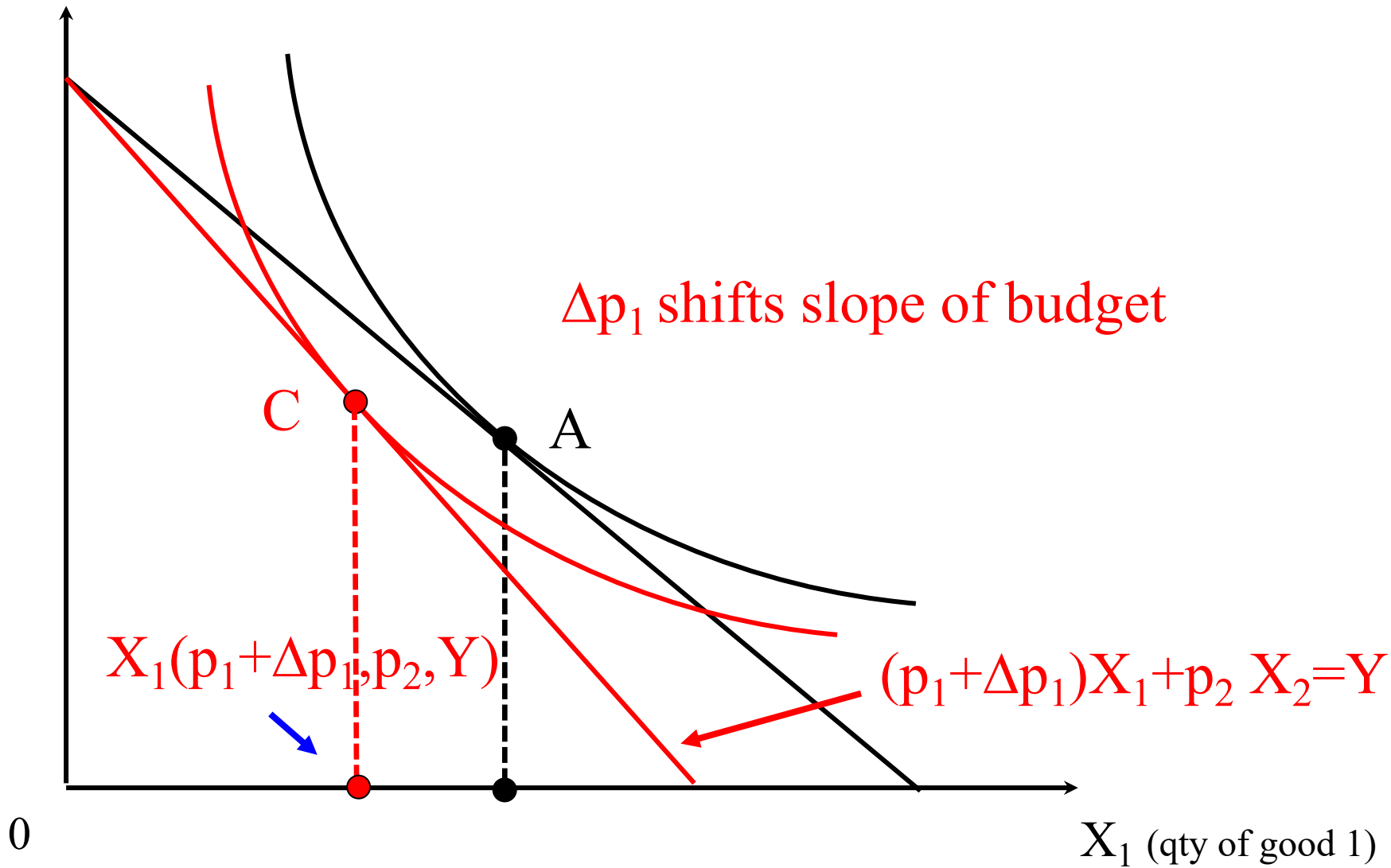
Price Effects: p_1 increases to $p_1 + \Delta p_1$

X_2 (qty of good 2)



Price Effects: p_1 increases to $p_1 + \Delta p_1$

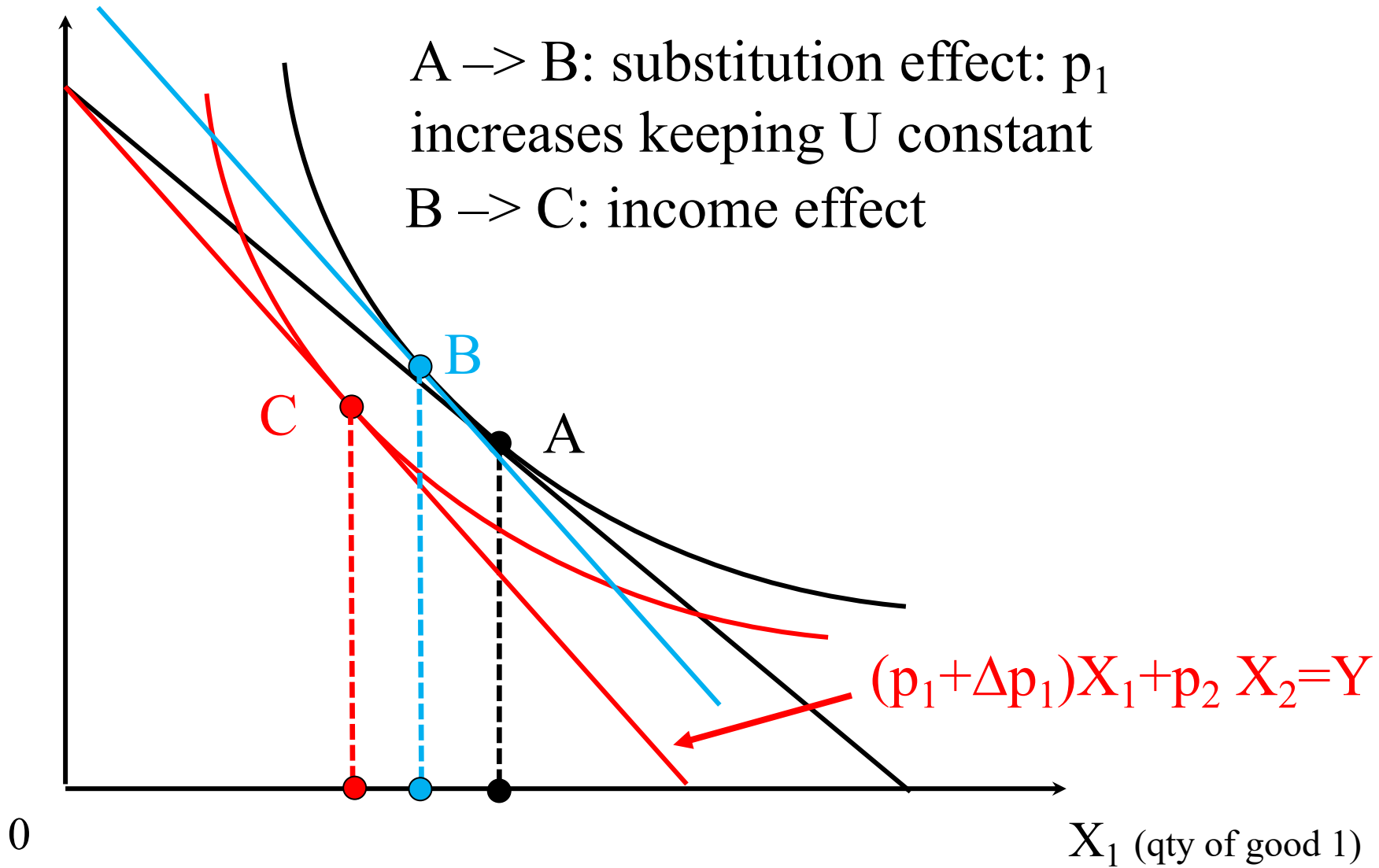
X_2 (qty of good 2)

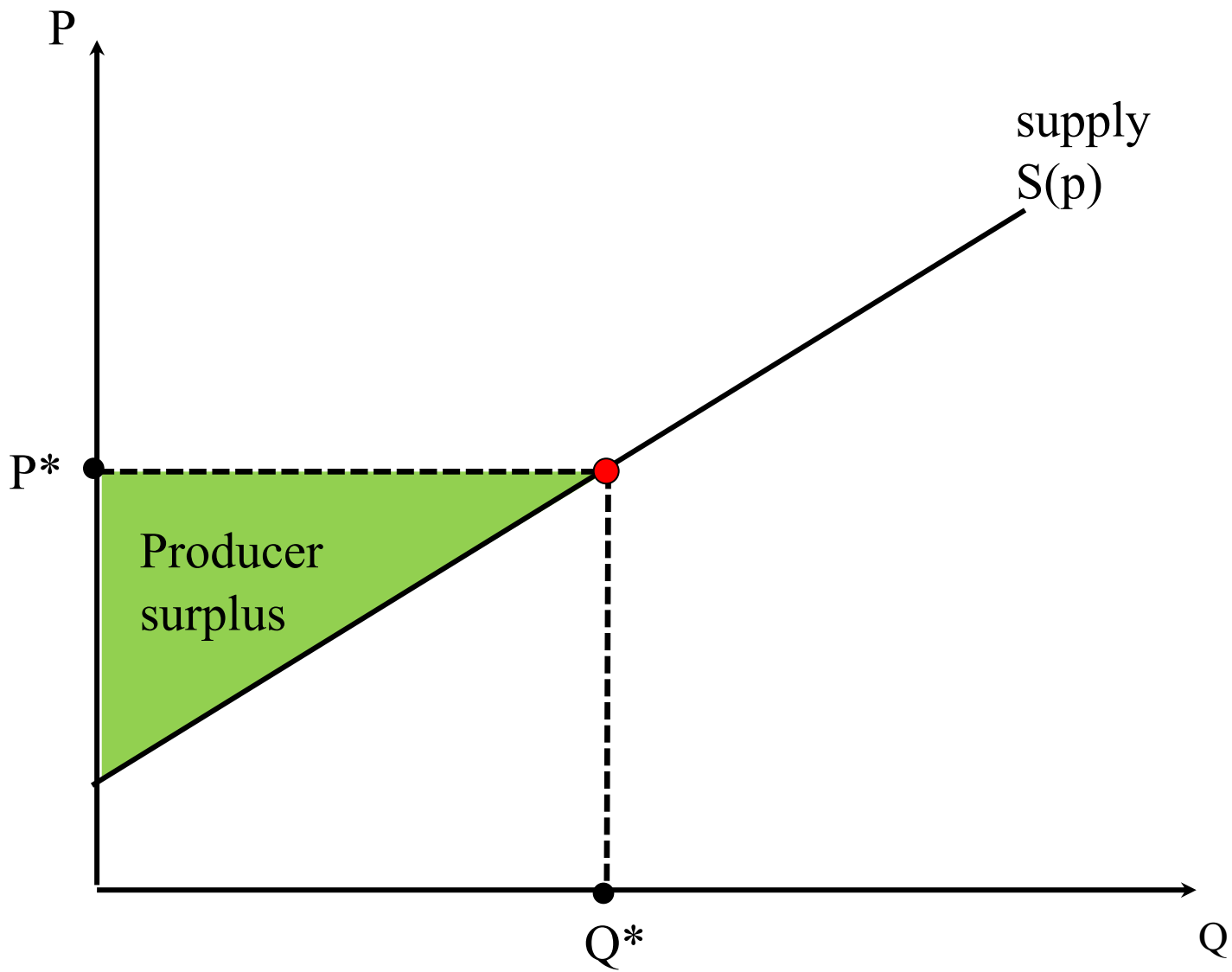


Price Effects: p_1 increases to $p_1 + \Delta p_1$

X_2 (qty of good 2)

A \rightarrow B: substitution effect: p_1 increases keeping U constant
B \rightarrow C: income effect





Utility Function

$u(c)$ is increasing

$u(c)$ is concave ($u'(c)$ is decreasing)

