Understanding Supply

- **What is the law of supply?**
- **What are supply schedules and supply curves?**
- **What is elasticity of supply?**
- **What factors affect elasticity of supply?**

The Law of Supply

- **According to the law of supply, suppliers will offer more of a good at a higher price.**

How Does the Law of Supply Work?

- Economists use the term **quantity supplied** to describe how much of a good is offered for sale at a specific price.
- The promise of increased revenues when prices are high encourages firms to produce more.
- Rising prices draw new firms into a market and add to the quantity supplied of a good.

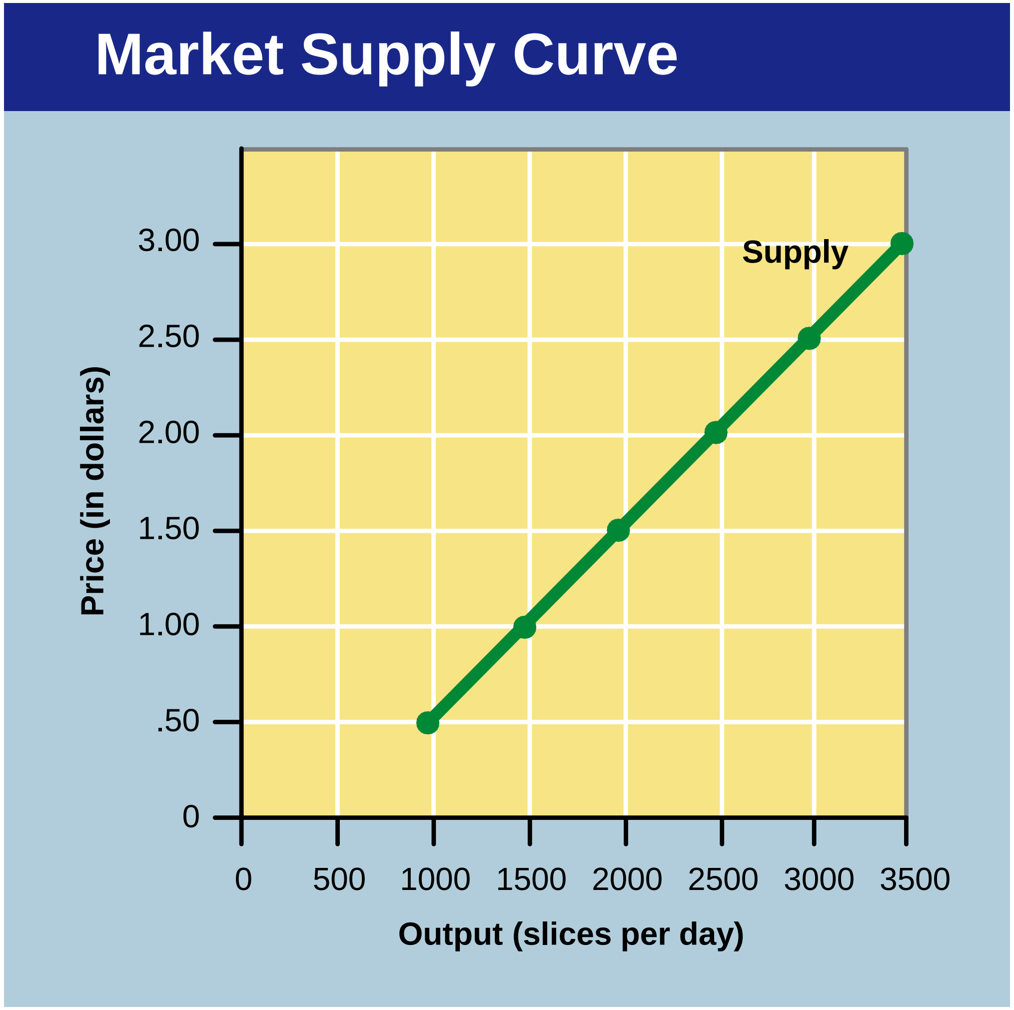
Supply Schedules

- A **market supply schedule** is a chart that lists how much of a good all suppliers will offer at different prices.

Market Supply Schedule	
Price per slice of pizza	**Slices supplied per day**
$.50	1,000
$1.00	1,500
$1.50	2,000
$2.00	2,500
$2.50	3,000
$3.00	3,500

Supply Curves

- **A market supply curve is a graph of the quantity supplied of a good by all suppliers at different prices.**



Elasticity of Supply

Elasticity of supply is a measure of the way quantity supplied reacts to a change in price.

- If supply is not very responsive to changes in price, it is considered inelastic.
- An elastic supply is very sensitive to changes in price.

What Affects Elasticity of Supply?

Time

- In the short run, a firm cannot easily change its output level, so supply is inelastic.
- In the long run, firms are more flexible, so supply can become more elastic.

Section 1 Assessment

1. **What is the law of supply?**
   - **(a) the lower the price, the larger the quantity supplied**
   - **(b) the higher the price, the larger the quantity supplied**
   - **(c) the higher the price, the smaller the quantity supplied**
   - **(d) the lower the price, the more manufacturers will produce the good**
2. **What happens when the price of a good with an elastic supply goes down?**
   - **(a) existing producers will expand and some new producers will enter the market**
   - **(b) some producers will produce less and others will drop out of the market**
   - **(c) existing firms will continue their usual output but will earn less**
   - **(d) new firms will enter the market as older ones drop out**

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Costs of Production

- **How do firms decide how much labor to hire?**
- **What are production costs?**
- **How do firms decide how much to produce?**

A Firm's Labor Decisions

- **Business owners have to consider how the number of workers they hire will affect their total production.**
- **The marginal product of labor is the change in output from hiring one additional unit of labor, or worker.**

Marginal Product of Labor

Labor (number of workers)	Output (beanbags per hour)	Marginal product of labor
0	0	—
1	4	4
2	10	6
3	17	7
4	23	6
5	28	5
6	31	3
7	32	1
8	31	–1

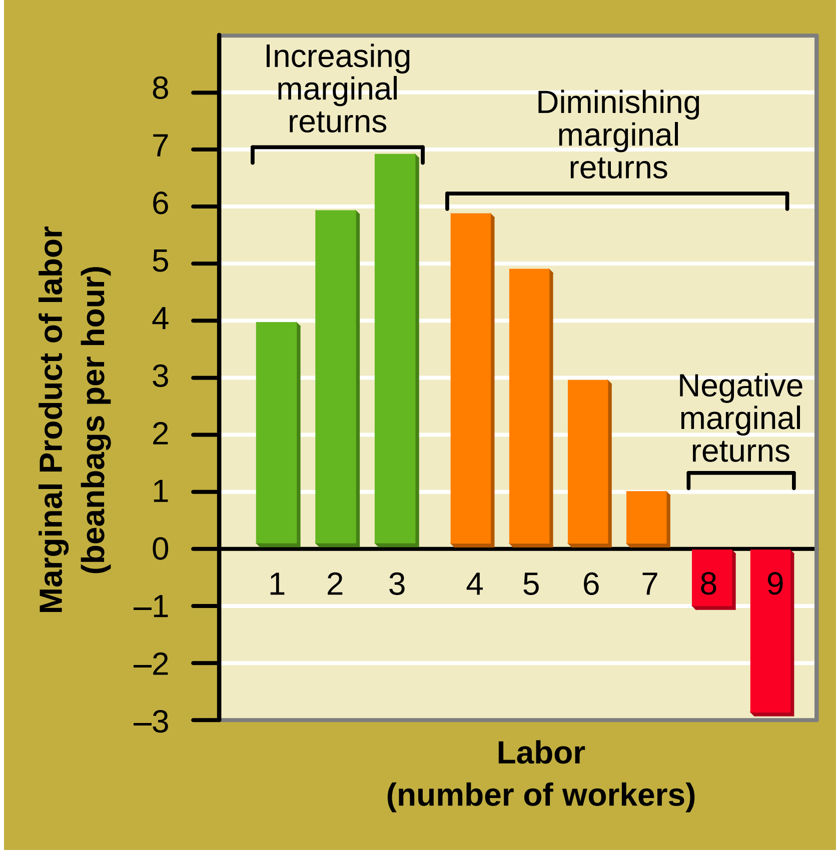
Marginal Returns

Increasing marginal returns occur when marginal production levels increase with new investment.

Diminishing marginal returns occur when marginal production levels decrease with new investment.

Negative marginal returns occur when the marginal product of labor becomes negative.

Increasing, Diminishing, and Negative Marginal Returns



Production Costs

- A **fixed cost** is a cost that does not change, regardless of how much of a good is produced. Examples: rent and salaries
- **Variable costs** are costs that rise or fall depending on how much is produced. Examples: costs of raw materials, some labor costs.
- The **total cost** equals fixed costs plus variable costs.
- The **marginal cost** is the cost of producing one more unit of a good.

Setting Output

- **Marginal revenue is the additional income from selling one more unit of a good. It is usually equal to price.**
- **To determine the best level of output, firms determine the output level at which marginal revenue is equal to marginal cost.**

Production Costs

Beanbags (per hour)	Fixed cost	Variable cost	Total cost (fixed cost + variable cost)	Marginal cost	Marginal revenue (market price)	Total revenue	Profit (total revenue – total cost)
0	$36	$0	$36	—	$24	$0	$ –36
1	36	8	44	$8	24	24	–20
2	36	12	48	4	24	48	0
3	36	15	51	3	24	72	21
4	36	20	56	5	24	96	40
5	36	27	63	7	24	120	57
6	36	36	72	9	24	144	72
7	36	48	84	12	24	168	84
8	36	63	99	15	24	192	93
9	36	82	118	19	24	216	98
10	36	106	142	24	24	240	98
11	36	136	172	30	24	264	92
12	36	173	209	37	24	288	79

Section 2 Assessment

1. What are diminishing marginal returns of labor?
   (a) some workers increase output but others have the opposite effect
   (b) additional workers increase total output but at a decreasing rate
   (c) only a few workers will have to wait their turn to be productive
   (d) additional workers will be more productive

2. How does a firm set its total output to maximize profit?
   (a) set production so that total revenue plus costs is greatest
   (b) set production at the point where marginal revenue is smallest
   (c) determine the largest gap between total revenue and total cost
   (d) determine where marginal revenue and profit are the same

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Changes in Supply

- **How do input costs affect supply?**
- **How can the government affect the supply of a good?**
- **What other factors can influence supply?**

Input Costs and Supply

- **Any change in the cost of an input such as the raw materials, machinery, or labor used to produce a good, will affect supply.**
- **As input costs increase, the firm's marginal costs also increase, decreasing profitability and supply.**
- **Input costs can also decrease. New technology can greatly decrease costs and increase supply.**

Government Influences on Supply

- **By raising or lowering the cost of producing goods, the government can encourage or discourage an entrepreneur or industry.**

Subsidies

A subsidy is a government payment that supports a business or market. Subsidies cause the supply of a good to increase.

Taxes

The government can reduce the supply of some goods by placing an excise tax on them. An excise tax is a tax on the production or sale of a good.

Regulation

Regulation occurs when the government steps into a market to affect the price, quantity, or quality of a good. Regulation usually raises costs.

Other Factors Influencing Supply

- The Global Economy
  - The supply of imported goods and services has an impact on the supply of the same goods and services here.
  - Government import restrictions will cause a decrease in the supply of restricted goods.
- Future Expectations of Prices
  - Expectations of higher prices will reduce supply now and increase supply later. Expectations of lower prices will have the opposite effect.
- Number of Suppliers
  - If more firms enter a market, the market supply of the good will rise. If firms leave the market, supply will decrease.

Section 3 Assessment

1. What affect does a rise in the cost of raw materials have on the cost of a good?
   (a) A rise in the cost of raw materials lowers the overall cost of production.
   (b) The good becomes cheaper to produce.
   (c) The good becomes more expensive to produce.
   (d) This does not have any affect on the eventual price of a good.
2. When government actions cause the supply of a good to increase, what happens to the supply curve for that good?
   (a) It shifts to the left.
   (b) It shifts to the right.
   (c) It reverses direction.
   (d) The supply curve is unaffected.

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