# Principles of Microeconomics

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July 9, 2025

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# Chapter 1

# Supply and Demand

# 1.1 Introduction

- An economy is a system of producing, distributing, and consuming goods and services.
- $\bullet$   $\,\underline{\text{Economics}}$  is the study of economies.
- <u>Microeconomics</u> is the study of how individuals, households, and firms make decisions and how they interact in specific markets.
- <u>Macroeconomics</u> is the study of society's overall system of production, distribution, and consumption.

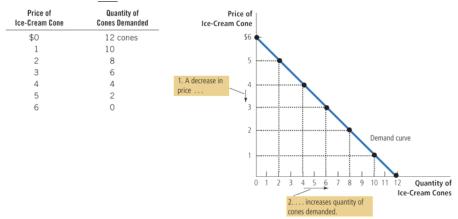
# 1.2 Markets and Competition

- A <u>market</u> is a group of buyers and sellers of a particular good or service.
- A <u>competitive market</u> is a market with so many buyers and sellers that each has a negligible impact on the market price.
- A market is perfectly competitive if:
  - 1. The goods/services offered for sale are all exactly the same.
  - 2. The buyers and sellers are so numerous that no single buyer/seller has any influence on the market price.
- Buyers and sellers in perfectly competitive markets are called <u>price takers</u> because they must accept the market price.

# 1.3 Demand

# 1.3.1 The Demand Curve

- The <u>quantity demanded</u> of a good is the amount that buyers are willing and able to purchase.
  - There are many determinants of quantity demanded, but the most important is the good's price.
- <u>Law of Demand</u>: Holding everything else constant, when the price of a good rises, the quantity demanded falls. When the price falls, the quantity demanded rises.
- A <u>demand schedule</u> is a table that shows the relationship between the price of a good and the quantity demanded (holding every other determinant of quantity demanded constant).
- The <u>demand curve</u> is the curve relating price and quantity demanded (holding everything else constant).
  - By convention, price is plotted on the y-axis and quantity demanded is plotted on the x-axis.



Ex. Catherine's Demand Schedule and Curve

#### 1.3.2 Market Demand

• The quantity demanded in a market is the sum of every individuals' quantity demanded at each price

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Price of Ice-Cream Cone	Catherine	Nicholas	Market
\$0	12	+ 7	= 19 cones
1	10	6	16
2	8	5	13
3	6	4	10
4	4	3	7
5	2	2	4
6	0	1	1
Catherine's Demand Price of Ice-Cream Cone	+ Nicholas's D Price of Ice-Cream Cone	Price of Ice-Cream Cone	Market Demand
56 5 4 3 3	56 - 4	56 5 4 3	

Ex. Market Demand Schedule and Demand Curve

## 1.3.3 Shifts in the Demand Curve

• If a determinant of quantity demanded other than price changes, the demand curve shifts.

## Variables That Shift the Demand Curve:

#### 1. Income:

- Typically, when people's income falls, their demand for a good falls. If demand for a good falls when income falls, the good is called a normal good.
- If the demand for a good rises when income falls, the good is called an inferior good.

# 2. Price of Related Goods:

- When a fall in the price of one good reduces the demand for another good, the two goods are called <u>substitutes</u>.
  - Substitutes are often goods that are used in place of each other,
     e.g. ice cream and frozen yogurt
- When a fall in the price of one good increases the demand for another good, the two goods are called complements

- Complements are often goods that are used together, e.g. ice cream and ice cream cones.

#### 3. Tastes:

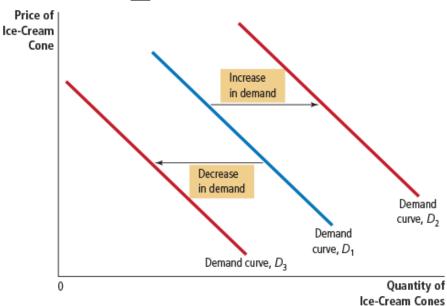
• If people's tastes (a.k.a. preferences) change, their quantity demanded will change, and the demand curve will shift.

## 4. Expectations:

- If people expect a higher price in the future, they will demand more at today's price.
- If people expect a higher income in the future, they will demand more today.

## 5. Number of Buyers:

- An increase in the number of buyers increases demand.
- A decrease in the number of buyers decreases demand.

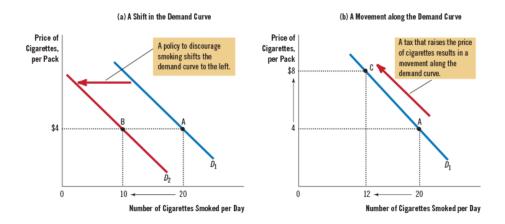


Ex. Shifts in the Demand Curve

## Warning:

- A change in the price of a good does *not* shift the demand curve for the good.
- A change in the price of a good represents a movement along the demand curve.

1.4. SUPPLY 5



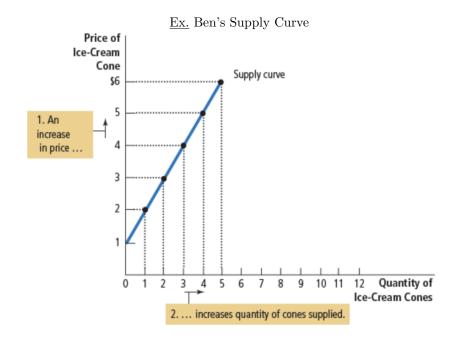
# 1.4 Supply

# 1.4.1 The Supply Curve

- The quantity supplied of a good is the amount that sellers are willing and able to sell.
  - The most important determinant of the quantity supplied of a good is the price of the good.
- <u>Law of Supply:</u> Holding everything else constant, when the price of a good rises, the quantity supplied rises. When the price falls, the quantity supplied falls.
- A <u>supply schedule</u> is a table that shows the relationship between the price of a good and the quantity supplied (holding every other determinant of quantity supplied constant).
- A <u>supply curve</u> is the curve relating price and quantity supplied (holding everything else constant).

# 1.4.2 Market Supply

• The quantity supplied in a market is the sum of every individual's quantity supplied at each price.



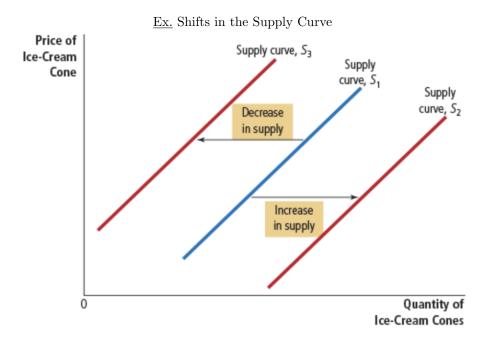
 $\underline{\operatorname{Ex.}}$  Market Supply Schedule and Supply Curve

Price of Ice-Cream (	Cone	Ben Jerry				Market		
\$0		0	+	0	=	0 cones		
1		0		0		0		
2		1		0		1		
3		2		2		4		
4		3		4		7		
5		4		6		10		
6		5		8		13		
Price of Ice-Cream Cone  56  4  3  2  1  Quantity of Ice-Cream Co		Jerry's	Supply S Jerry 7 8 9 10 11 1 f Ice-Cream Con	2	of mene	S <sub>Market</sub> Supply  S <sub>Market</sub> 5 6 7 8 9 10 11 1  ntity of Ice-Cream Cor	12	

1.4. SUPPLY 7

# 1.4.3 Shifts in the Supply Curve

• If a determinant of quantity supplied other than price changes, the supply curve shifts.



## Variables That Shift the Supply Curve

#### 1. Input Prices:

- An input is any good or service that's used to produce another good or service.
- An increase in input prices makes production less profitable, so fewer producers are willing to supply at a given price and supply decreases.
- Similarly, a decrease in input prices will increase supply.

# 2. Technology:

- Advancement in production technology reduces costs which increases profits, so firms supply more and supply increases.
- Similarly, a decline in production technology will decrease supply.

## 3. Expectations:

• If firms expect higher prices in the future, they will postpone some production, and supply in the present will decrease.

- If firms expect lower prices in the future, they will fast forward its production, so supply in the present will increase.
- 4. Number of Sellers
- 5. An increase in the number of sellers increases supply.
- 6. A decrease in the number of sellers decreases supply.