

ECON 101: Principles of Economics I

Lecture Note 3

University of Michigan at Ann Arbor

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Lecture 3 Supply and Demand

Friday, September 9, 2022 1:24 PM

Perfectly Competitive Market

A perfectly competitive market is a market in which there are:

- Many buyers and sellers
- All individuals are price-takers
- Standardized good or service
- Free entry and exit

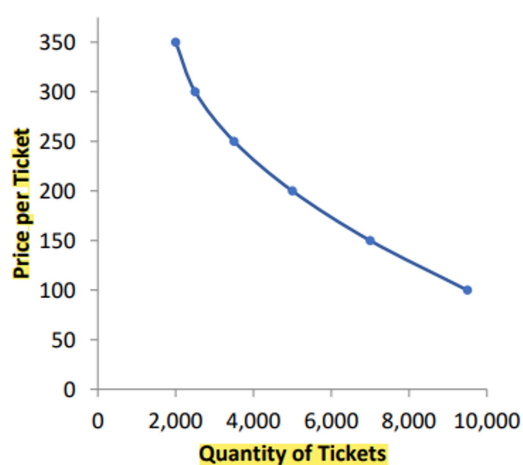
The supply and demand model is a model of how a competitive market works.

Demand Schedule & Curve

Recall we are all price-takers, so we react to the price by saying yes or no.

All the yes's add up to the quantity demanded.

Market for Tickets



Price (\$/ticket)	Quantity demanded (tickets)
350	2,000
300	2,500
250	3,500
200	5,000
150	7,000
100	9,500

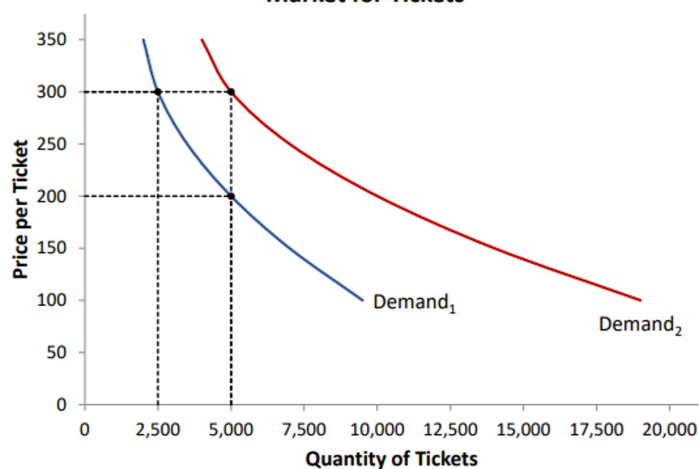
Demand - refers to the curve in its entirety

Quantity Demanded - the actual amount consumers want to buy at some specific price

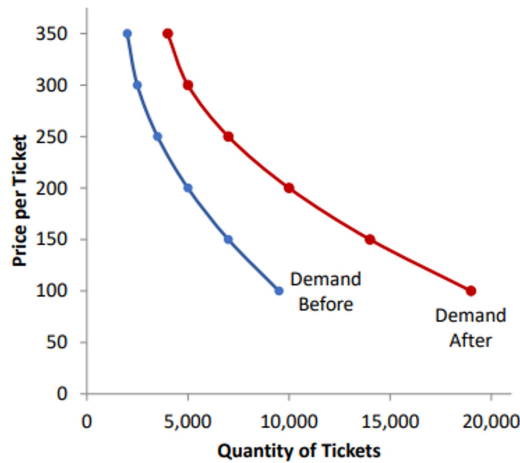
Law of Demand - as the price increases, the quantity demanded decreases along the curve

Movement Along vs. Shift of the Demand Curve

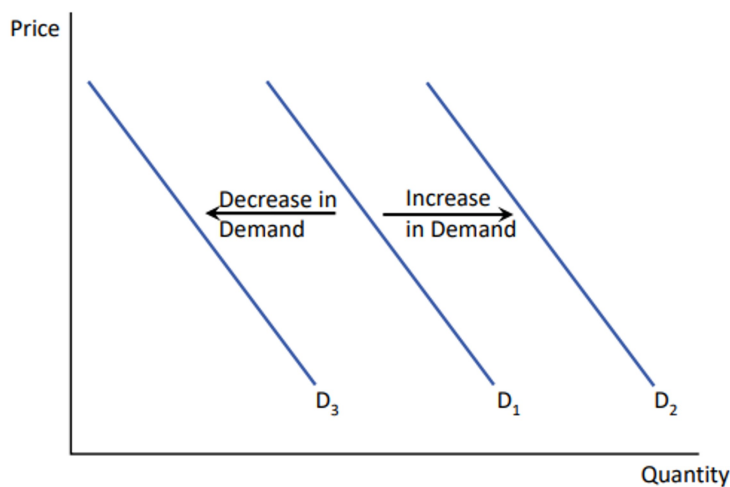
Market for Tickets



**Market for Tickets
(Before and After Announcement)**



Price (\$/ticket)	Quantity demanded Before	Quantity demanded After
350	2,000	4,000
300	2,500	5,000
250	3,500	7,000
200	5,000	10,000
150	7,000	14,000
100	9,500	19,000



What causes a Demand Curve to Shift?

- Changes in the prices of related goods:
 - Substitutes in consumption: a fall in the price of one of the goods makes consumers less willing to buy the other good
 - Complements in consumption: a fall in the price of one good makes people more willing to buy the other good
- Changes in tastes
- Changes in income
 - Normal goods: a rise in income increases the demand for a good
 - Inferior goods: a rise in income decreases the demand for a good
- Changes in expectations
- Changes in the number of consumers

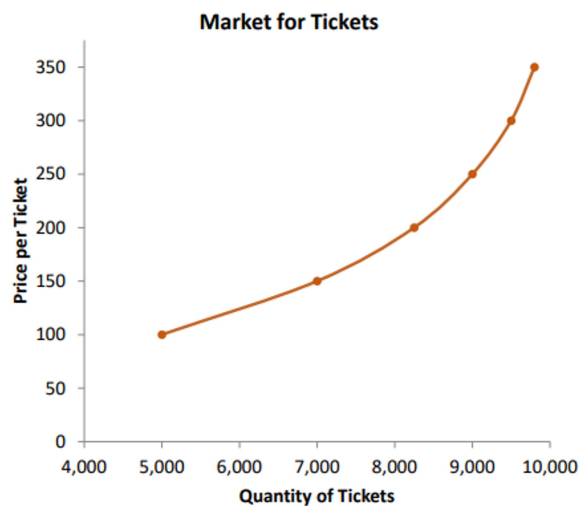
IMPORTANT:

- Law of demand: quantity demanded increases when price decreases
- Quantity demanded vs demand
 - A "shift" changes demand (the whole demand curve)
 - A "movement along" changes quantity demanded
- Shifters of demand curve
 - Changes in prices of related goods (complements and substitutes in consumption)
 - Changes in tastes
 - Changes in income (normal vs inferior goods)
 - Changes in expectations
 - Changes in the number of consumers

Supply Schedule & Curve

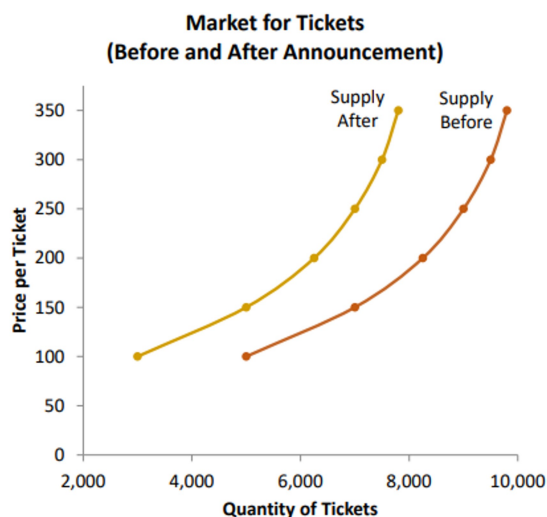
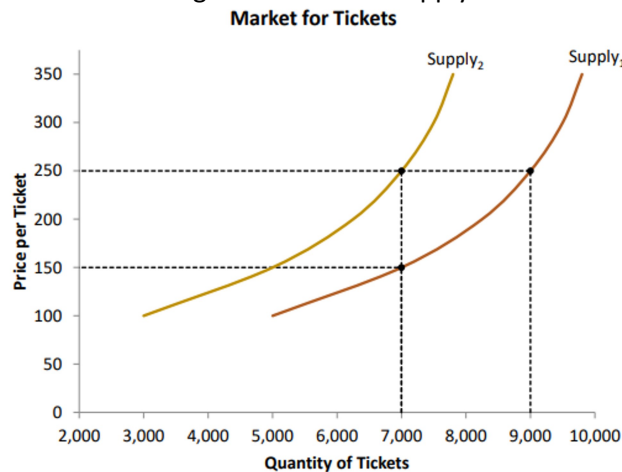
Recall all producers (sellers) are price-takers. A seller sees that price in the market and says yes or no.

All the yes's add up to quantity supplied.

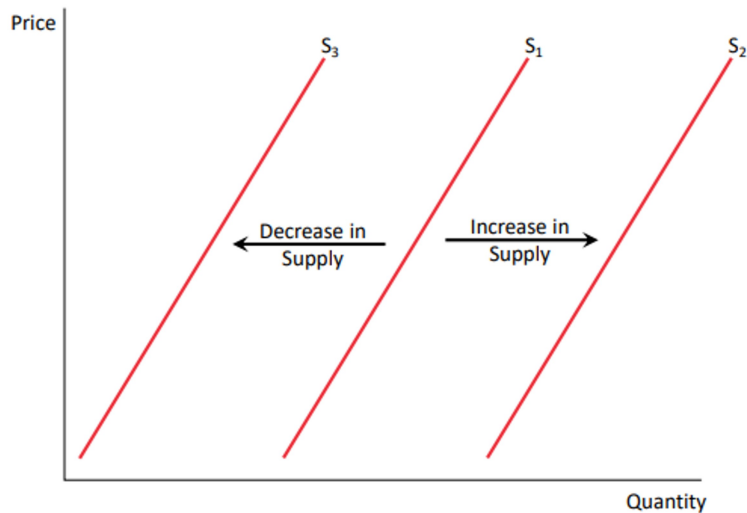


Price (\$/ticket)	Quantity supplied (tickets)
350	9,800
300	9,500
250	9,000
200	8,250
150	7,000
100	5,000

Movement Along vs. Shift of the Supply Curve



Price (\$/ticket)	Quantity supplied Before	Quantity supplied After
350	9,800	7,800
300	9,500	7,500
250	9,000	7,000
200	8,250	6,250
150	7,000	5,000
100	5,000	3,000



What causes a Supply Curve shift?

- Changes in input prices (the things put into the production process)
- Changes in the price of production related goods or services (relationships between outputs of the production process)
- Substitutes in production
Ex: Cheese burger or hamburger
Ex: Cars, van or SUV (if the price of van increases, produce more van, reduce SUV. Supply of SUV decreases.)
- Complements in production
Ex: Vegetable oil. Soybean oil and soybean meal have to produce together because they are depend on each other.
- Changes in technology
Ex: Improvement in technology increases the supply
- Changes in expectations
Ex: If oranges is not enough today, hold some oranges, and sell them in the future.
- Changes in number of producers

IMPORTANT

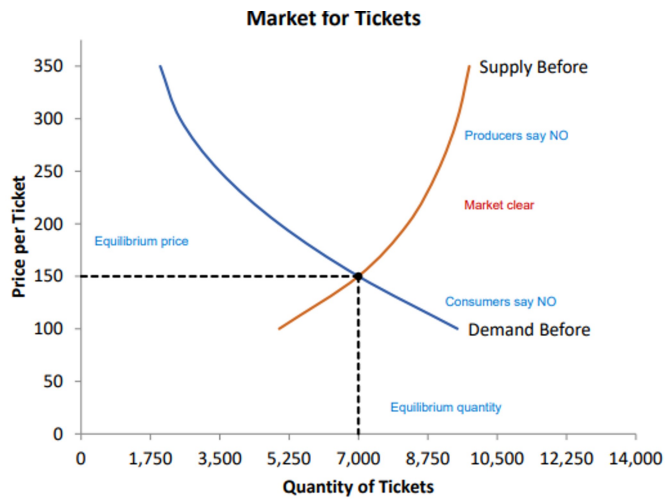
- Typically, the quantity supplied will decrease when the price decreases
- Quantity supplied vs supply
 - A "shift" changes supply (the whole supply curve)
 - A "movement along" changes quantity supplied
- Shifters of supply curve
 - Changes in input prices
 - Changes in the prices of production related goods or services
 - Changes in technology
 - Changes in expectation
 - Changes in the number of producers

Supply, Demand, and Equilibrium

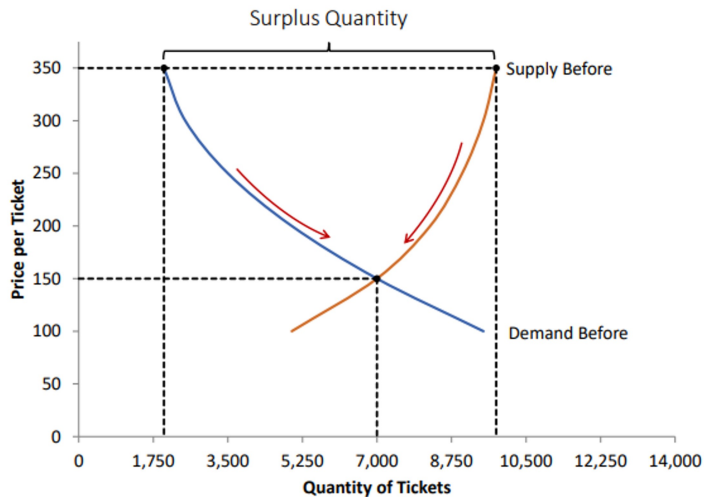
Equilibrium - the price at which quantity supplied equals quantity demanded

- Equilibrium price (market-clearing price)
- Equilibrium quantity

Finding the Equilibrium

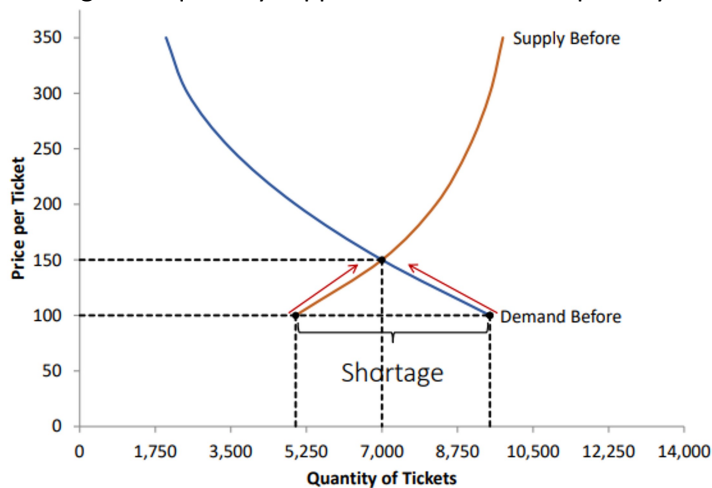


What happens when price is above the equilibrium?

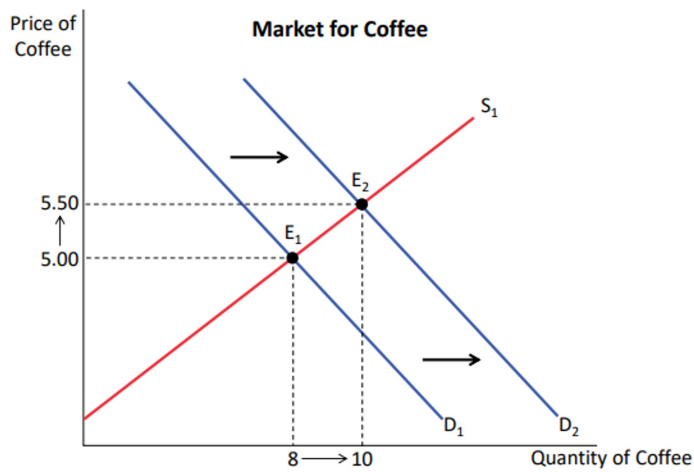


What happens when price is below the equilibrium?

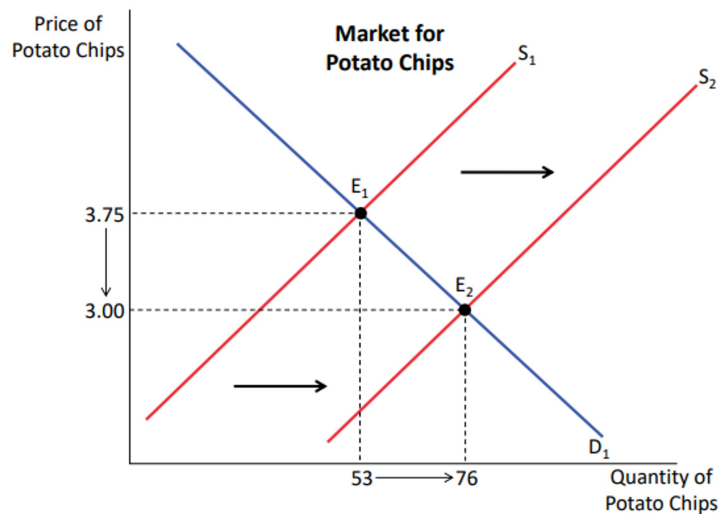
Shortage: the quantity supplied is less than the quantity demanded at a specific price



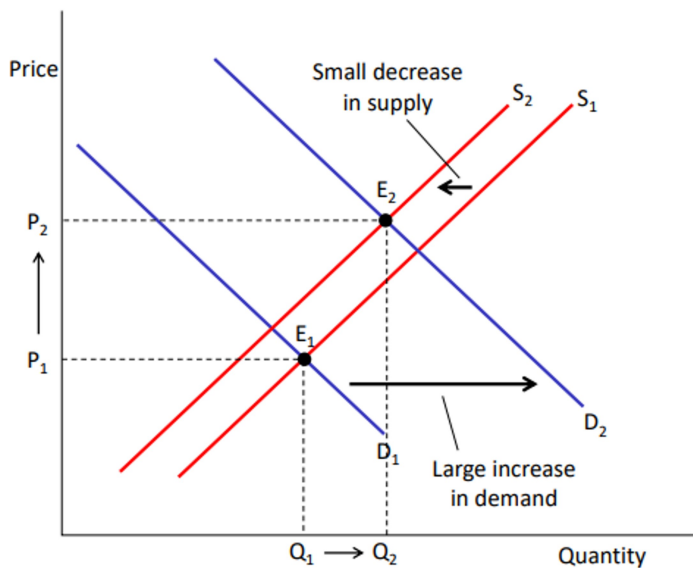
Changes in supply and demand (increase in the price of tea)

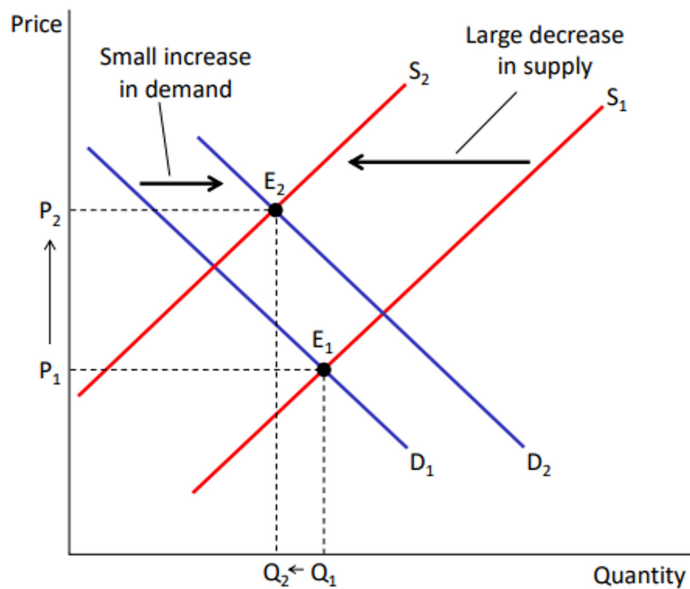


Changes in supply and demand (better potato yields)



Simultaneous shifts in supply and demand





	Supply Increases	Supply Decreases
Demand Increases	<u>Price</u> : ? <u>Quantity</u> : up	<u>Price</u> : up <u>Quantity</u> : ?
Demand Decreases	<u>Price</u> : down <u>Quantity</u> : ?	<u>Price</u> : ? <u>Quantity</u> : down

IMPORTANT

- Equilibrium: the single price at which quantity supplied equals quantity demanded
 - The market "clears" at this point
- Surplus and shortage
 - Surplus: quantity supplied > quantity demanded
 - Results in downward pressure on the price
 - Shortage: quantity supplied < quantity demanded
 - Results in upward pressure on the price
- Simultaneous shifts
 - Result depends on the size of each shift
 - Draw out each scenario using the table