# Demand

Getting What You Want

#### Demand

- 1. Plan (or Schedule or Curve) [relating]
- 2. (per unit) Price and
- 3. Quantity demanded [reflecting]
- 4. Willingness to pay and
- 5. Ability to pay

### The Law of Demand

Ceteris paribus, there is an **inverse** relationship between (per unit) **price** and **quantity** (demanded).

$$P \uparrow Q \downarrow \text{ and } P \downarrow Q \uparrow$$

Remember: Prices are not always monetary. There are plenty of other prices people pay and sacrifices they make for the things they want.

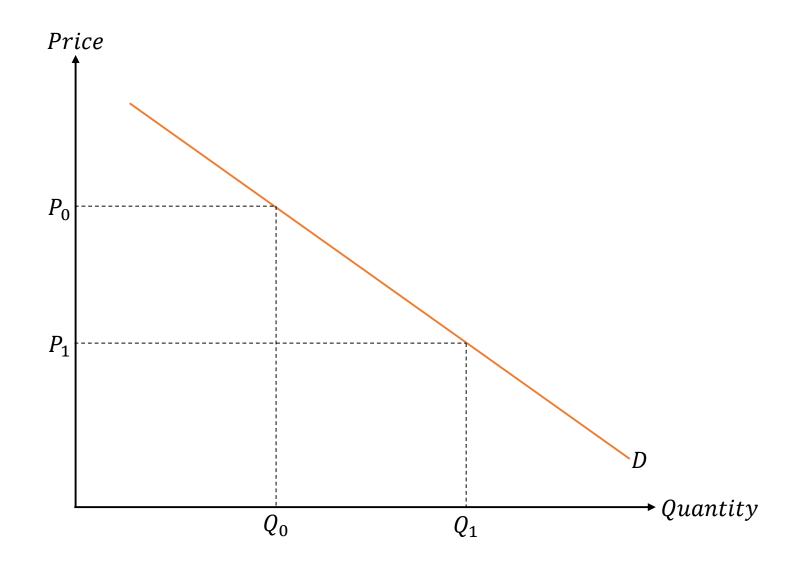
## Why do we believe the Law of Demand

Because it's The Law? Two reasons:

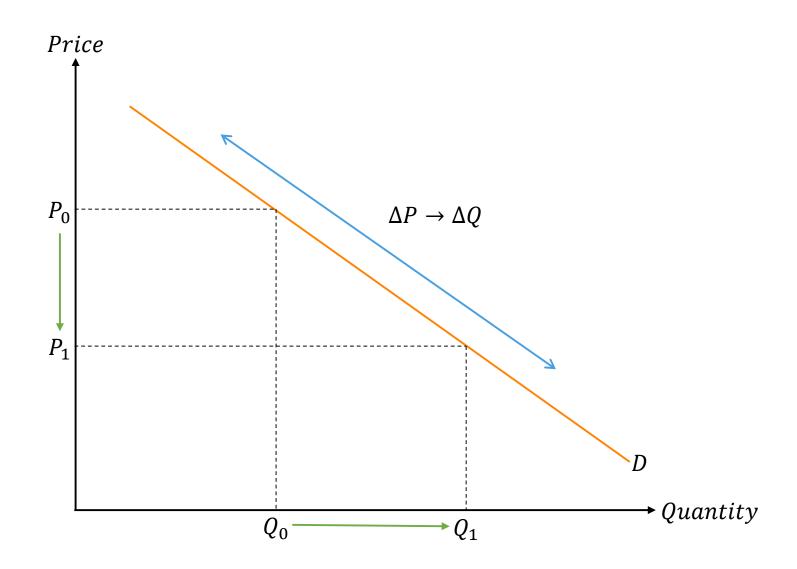
Opportunity cost

• Diminishing marginal utility

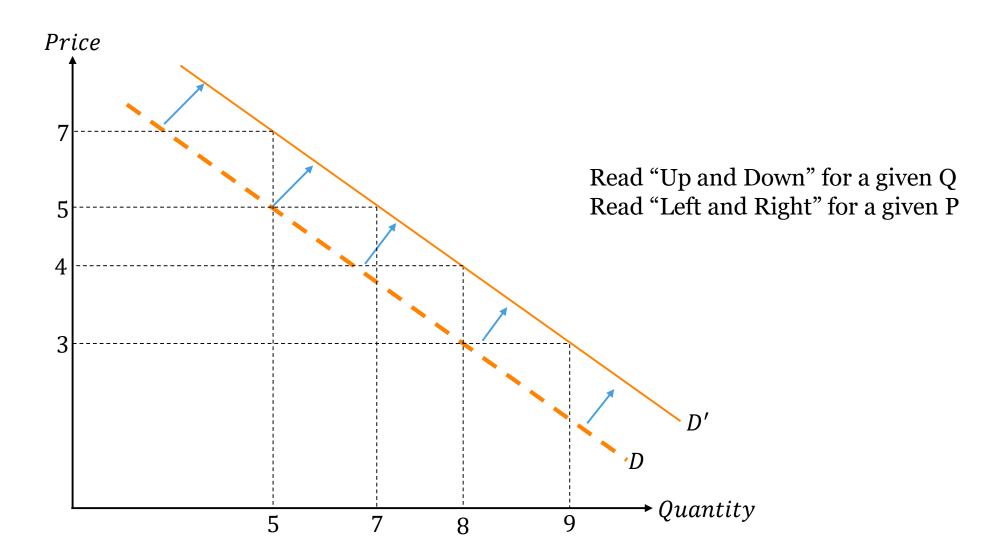
# Drawing a Demand Curve



# Applying the Law of Demand



## "Reading" Demand Curves



### Changes in Demand

- 1. Demographics (# and type of buyers)
- 2. Income
- 3. Price of related goods (complements and substitutes)
- 4. Expectations
- 5. Information (tastes and preferences)

### Individual Demand to Market Demand

For goods that are rivalrous in consumption, we use **horizontal** summation.

Take a price as given, ask all the demanders "how much would you buy at this price?" Add up their responses.

Do this for all prices.

# Demographics

Number of Demanders

Average age

Cultural or religious changes

#### Income

Normal goods: Demand is directly related to changes in income

Inferior goods: Demand in inversely related to changes in income

'Direct' is also sometimes said 'proportional' or 'positively' 'Inversely' is also sometimes said 'negatively'

### Prices of Related Goods

Complements and Substitutes

Good A and Good B are related. Good B's price changes.

- 1. Apply the law of demand to Good B (the related good)
- 2. Ask how the quantity of Good B changes demand for Good A

### Expectations

People base present consumption choices on their expectations; when those expectations change, present consumption choices will move in predictable ways.

For durable goods, future goods are a substitute for present goods. There is a smoothing of price jumps.

People also have expected Income changes.

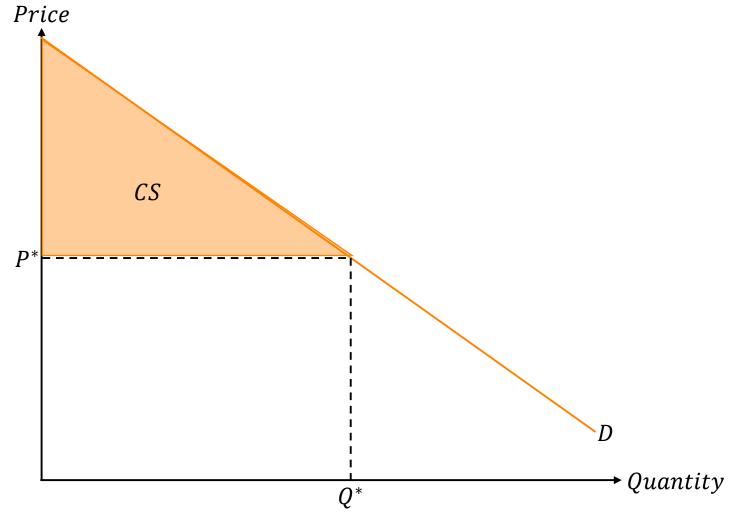
### Information (Means, Ends, and Ideas)

The "god of the gaps" explanation for demand changes. "When you have eliminated the impossible, whatever remains, however improbable, must be the truth."

Do tastes and preferences change? Yes, of course. But it's impossible for us to **observe** that.

What is something that changes we can observe? Information.

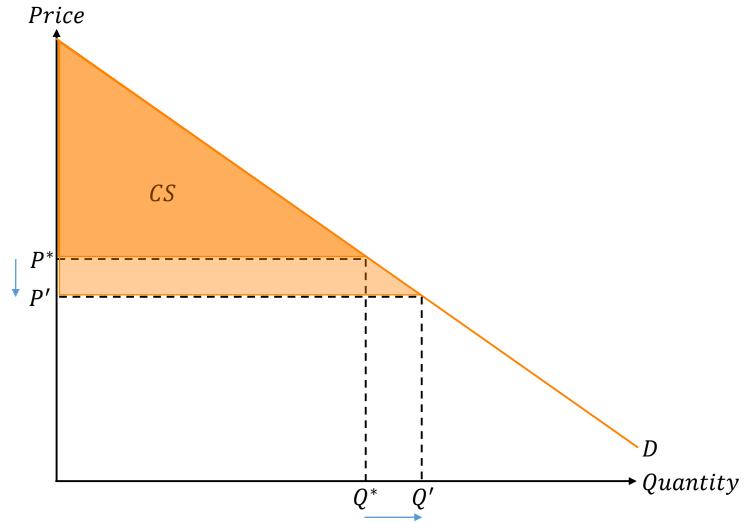
## Surplus, Graphically



#### Calculating CS

- 1. Geometry: area of a triangle
- 2. Calculus: area under a curve

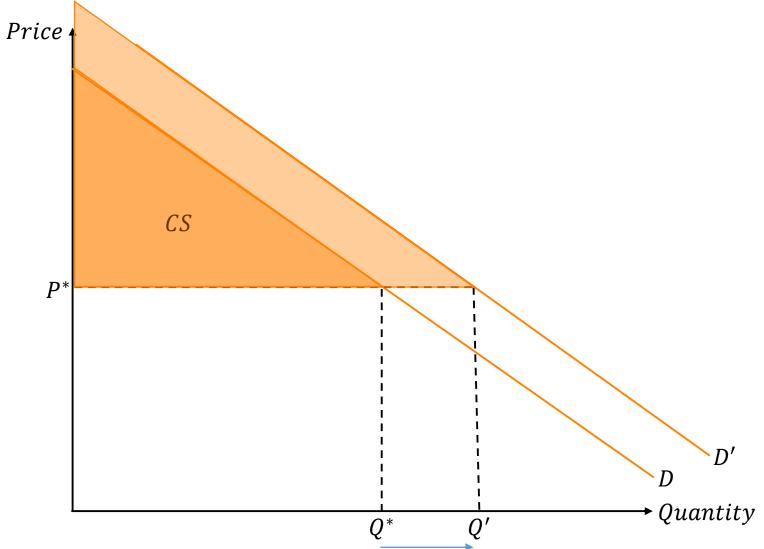
# Changes in Surplus



#### Changing CS

- 1. Lower price means more surplus
- 2. Higher price means less surplus

# Changes in Surplus



#### **Changing Surplus**

- 1. Increasing demand means more surplus
- 2. Decreasing demand means less surplus