

0.1 Unit 1

0.1.1 August 18, 2021

Mr. Clifford's Introduction Video

- Scarcity is the idea that there are limited resources.
- Example: Thursday night flight for \$275, \$300, \$325 dollar flight. The most expensive flight was actually the cheapest because of opportunity cost: she could work at the restaurant for the next few days.
- Why don't we produce all the phones in our country?
- Unseen costs: because of costs in the United States, phones are much cheaper because China manufacturing is significantly cheaper in the United States. Economists often oppose tariffs for this reason.

1 **Definition** (Economics 1)

The study of how people interact with each other and with their natural surroundings in producing their livelihoods, and how this changes over time.

2 **Definition** (Economics 2)

Economics is about how individuals, businesses, governments, and nations make choices about how to allocate limited resources when faced with unlimited wants and needs.

In essence, economics solves the problem of scarcity - which occurs when there are limited quantities of things.

3 **Definition** (Resources)

Anything that can be used to produce something else.

The Factors of Production

- Labor: the time and effort that people devote to producing goods and services.
 - Human capital: the knowledge and skill base of workers in society from education, trainings, and experience. Investing in human capital can increase your productive capacities as an economy. McDonald's and many companies will pay for associated colleges.
- Capital: Items used to produce goods and services: machines, tools, buildings. NOT: money, stocks.
- Land: Nature that we use to produce goods and services: water, animals, minerals
- Entrepreneurship: resource that decides how to organize the land, labor, and capital of production; makes decisions and bears risks.

4 **Remark**

Technology falls under capital, since it is able to produce goods and services. In the future, this may fall under its own category because they are able to produce larger things.

How does scarcity impact human behavior?

People must make choices about how to use scarce resources.

5 Definition (Tradeoffs)

All alternatives that are considered when making a choice.

6 Definition (Opportunity Cost)

The value of the next best alternative when making a decision.

Example: by watching a movie at home instead of going out with friends, you are trading the benefits of added stress of going outdoors.

How do individuals make the best decisions?

- Benefits: the added satisfaction and benefit when a good is purchased.
- Costs: The added costs (and opportunity costs) when a good is purchased.

Should a city host the olympics?

- How are the land, labor, capital, and entrepreneurship used if you host the olympics.
 - Venues cost \$ 7.6 billion. Bids are usually an optimistic estimate.
 - One year postponement meant that there were many costs added.
 - New costs are added incurred around 2.5 billion dollars to the games' budget.
 - COVID also is taking away ability to recoup that money. ; There will be no income from visitors because of COVID.
 - Around 2 billion dollars lost in economic benefits.
 - Corporate sponsors contribute billions of dollars and the IOC committed around 600 million. The overall cost of the pandemic is much higher than the olympics.
 - Japan has spent over 800 billion dollars on stimulus packages.
- What's something interesting you heard?
 - First game to be postponed.
 - Most expensive summer game ever.
 - Cost over 20 billion by the end.
- What are the trade-offs of hosting?
 - You often lose money.
 - There would be no spectators this year because of COVID-19.

0.1.2 August 23, 2021

Discuss what your terms mean, and then come up with a group motion to represent this term.

1. Economics
2. Scarcity

0.1.3 August 24, 2021

Notes

How do you model scarcity on a curve.

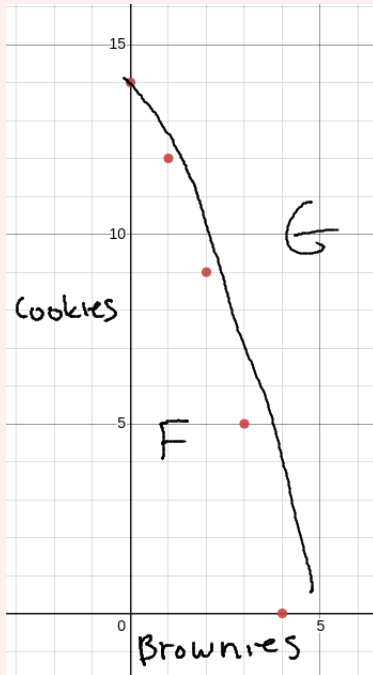
7 Definition (Production Possibilities Curve)

A curve that shows the maximum combinations of goods and services that can be produced, given the fixed factors of production (scarcity). Shows: Trade-off, efficiency, inefficiency, opportunity costs, and growths or contractions.

Consumer goods vs capital goods. The x-axis is the capital goods, and the y-axis is the consumer goods. Those on the outside of the curve are unattainable.

PPC Features:

- The model shows the two alternative choices someone or a country can make.
- Because scarcity exists, there is a maximum amount of goods and services that can be produced.



Note that any points that lie inside of the curve are inefficient. In order to calculate the opportunity cost, we calculate from moving points:

Opportunity Costs

- A to B: gain one brownie and give up two cookies.
- D to C: lose one brownie and gain four cookies.
- E to B: lose three brownies and gain twelve cookies.
- A to E: gain four brownies and give up fourteen cookies.

Homework

Day 1: Review: Answer a few term-based questions before diving into today's content.

1. What is the basic problem of economics? Explain this term.

Scarcity. There is a limit to how much something can be produced, or exist. As a result, distribution of resources is a problem.

2. Why would economists say there is no such thing as a free lunch?

There is no such thing as a free lunch. The free lunch is a false statement. This is because some labor is required to produce a good, and all goods in lunch require some labor.

3. What does the Production Possibilities Curve show? What resources are fixed?

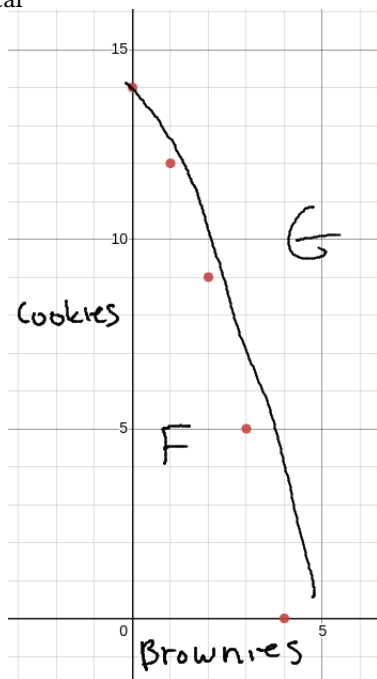
The Production Possibilities Curve shows the trade-offs between two alternatives. The resources that are fixed are the summation of the alternatives being considered.

4. How does the curve show scarcity?

The curve shows scarcity because as the amount of one good is increased, the amount of the other good is decreased, implying that there is a finite amount.

5. Plot

6. Star



7. Calculate the opportunity cost of the following points:

- A to B: gain one brownie and **give up two cookies**.
- D to C: **lose one brownie** and gain four cookies.
- E to B: **lose three brownies** and gain twelve cookies.
- A to E: gain four brownies and **give up fourteen cookies**.

8. Since the graph looks relatively linear, the opportunity cost looks constant.

9. What will happen to the PPC for brownies and cookies if... (shift out, shift in, no shift)

- There is an increase in technology
The production curve will shift right because more goods can be produced.
- There is a natural disaster, such as a major earthquake
The production curve will shift left because less goods can be produced.
- There is high unemployment
The production curve will shift left because less goods can be produced.
- There is an improvement in human capital, or education
The production curve will shift right because more goods can be produced.

10. When in history might there have been a time that a country operated at an inefficient point of production?

In the past, people have been at an inefficient point of production. For example, in the late 1800s, the United States was at an inefficient point of production because it was using more labor than it could produce. This event is called the Panic of the

0.1.4 August 25, 2021

8 **Example** (What's the difference between inefficient production and a contraction?)

Inefficient: a point under the PPC. Indicates an underutilization of resources. Unemployment, etc.

Contraction: a country has an under-utilization of resources, shifting the curve leftward or inward. This can occur due to natural disasters. Ex. natural disaster, war, etc.

What strategies encourage economic growth?

- Increasing the quality of quantity of the factors of production.
- Such as land, labor, capital, or entrepreneurship.
- Your labor force could become more efficient through education.

0.1.5 September 02, 2021

9 **Definition**

What is a competitive market?

Any arrangement that brings many buyers and sellers together to carry out an exchange.

- Physical or virtual.
- Focuses on buyers for demand.

10 **Definition**

Demand schedule: indicates how much of a good or service a customer is willing and able to buy at different possible prices, ceteris paribus.

Demand curve: a graphical representation of the demand schedule. Shows the relationship between price and quantity.

The law of demand: there is a negative causal relationship between the price of a good and the quantity demanded, ceteris paribus.

- If price is high, quantity demanded is low
- If price is low, quantity demanded is high

Increase of the quantity demanded:

- An increase of the quantity demanded at one price
- caused only by a change in price.
- A movement along the curve down to a lower price.
- ΔQD = change in quantity demanded.

An increase in demand:

- An increase of the quantity demanded at every price.
- Caused by an external shock.
- Taste, related goods, income, population, expectations.
- ΔD = change in demand.

Use TRIPE:

- Tastes or preferences
- Related goods' price
- Income
- Population
- Expectations

Tastes trends and preference are affected by popularity and health considerations.

The non-price determinants of demand:

11 Definition

Normal goods: if income increases, you buy more of these goods.

Inferior goods: if income decreases, you buy more of these goods. Ex: cheap substitute foods, store brand, generic.

More buyers = more demand, fewer buyers = less demand.

Expectations

- If P is expected to go up in the future, demand increases.
- If P is expected to go down in the future, demand decreases.

12 Example

- Wages decline for workers around the country; shift left.
- 1970s styles popular with high school students; shift right.
- Fast food chain raises prices on all menu items; shift left.
- Analysts predict video game prices to increase next year; shift right.

0.1.6 September 07, 2021

13 Definition (Competitive Market)

Competitive Market

Any arrangement that brings many buyers and sellers together to carry out an exchange. Focuses on sellers for supply.

Can be physical or virtual.

14 Definition (Supply Schedule)

Indicates how much of a good or service a producer is willing and able to sell at different possible prices, ceteris paribus

15 Definition (Supply Curve)

A graphical representation of the supply schedule. Shows the relationship between quantity and price.

16 Definition (The Law of Supply)

There is a positive causal relationship between the price of a good and the quantity supplied, ceteris paribus.

Low price is low quantity, High price is high quantity.

- An increase of the quantity supplied at one price
 - Caused only by a change in the price

- A movement up the curve to a higher place.

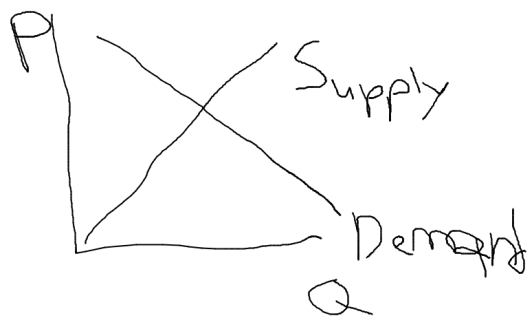
A change in price does not shift the supply curve.

- An increase of the quantity supplied at **every price**.
- Caused by an external shock.
- Productivity, related prices, input costs, cash change, expectation sellers.
- Productivity
 - More tech or capital = more supply.
 - Less tech or capital = less supply.
- Related prices
 - An increase in the price of a related good can influence the supply of the original good.
 - If Uber drivers make more money than Lyft, supply for Lyft drivers decreases.
 - If input money goes up, less supply.
 - If gas is more expensive, uber supplies less trips.
 - If input goes down, more supply. If Uber drivers supply more trips, then supply increases.
- Cash Change
 - Subsidy: money given by the government to improve an industry. Ex. agriculture and solar panels. More supply.
 - Taxes: money given to the government that discourages a particular action. Less supply.
- Expectations
 - If price will go up in the future, the supply NOW decreases.
 - If price will decrease in the future, the supply NOW increases.
- Sellers
 - If more suppliers, shifts right, increase of supply.
 - If less suppliers, shifts left, less supply.

0.1.7 September 08, 2021

17 Definition (Market Equilibrium)

Market equilibrium is the point at which the supply and demand curves are equal.



A shortage lies to the left of the supply and demand curves, where the demand is greater than the supply available. If we have a price above equilibrium, we end up with a surplus, where the supply is greater than the demand.