2017-01-10

Basic Economic Concepts

What is Economics?

- **Economics** = the "science" of **scarcity**
  - **Scarcity** = the premise that resource availability is finite
  - Economic "actors" make decisions on how to allocate resources
    - Economics is also called the science of **choices**

A Note About This Class

- This class is about **Macroeconomics**
  - **Macroeconomics** = an aspect of economics concerned with the higher-level details of how markets operate
    - Especially how governments can affect market trends
- **Economics(textbook definition)** = a social science that deals with how to efficiently allocate scarce resources such that the "actor" in question attains maximum satisfaction
  - *Flawed premise?*

Micro vs Macro

- **Microeconomics** = an aspect of economics concerned with lower-level details of smaller economic units
  - Examples
    - *How do specific markets operate?*
    - *How do monopolies affect profit?*
- **Macroeconomics** = an aspect of economics concerned with higher-level details of the entire economy
  - Examples
    - *How do we best model economic growth?*
    - *How can international trade affect domestic industries?*
    - *How can government spending influence the market?*

How is Economics Used?

- In economics, the chasm between practical affect and theoretical affect is relatively large
  - Sometimes, economic theories do not have the intended consequences
  - **Theoretical Economics** = the use of economic methods of analysis to develop a coherent model of an aspect of the economy
  - **Policy economics** = an economic model in which theories are applied and modified to best seek certain economic outcomes
- **Positive Statement** = a matter-of-fact statement of what reality consists of
  - Ignores morality and ethics and expectation
- **Normative Statements** = an assessment of perceived societal ills and how to best address them
  - Less based in practicality–more theoretical

Five Economic Assumptions

1. People's desires are unlimited, and commodities are *scarce*
2. Because of scarcity, choices must be made
   - In addition, each choice had trade-offs due to **opportunity cost**
3. Actors make decisions to maximize their satisfaction
   - Everyone is fundamentally self-interested
4. Decisions are made by comparing **marginal costs** and **marginal benefits** of each prospective option
5. Economic situations can be illuminated via simiplified models and graphs

What are "Marginal" costs and benefits

- **Marginal** = a term that describes "additional"
  - *Think "margin"*
- **Marginal Analysis** = a methodology that relies on comparing value that stands to be created or destroyed as a result of certain actions
  - Think of *cost-benefit analysis*
- Premise: *people will continue to do something until the marginal costs are greater than the marginal benefits*

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Practice Choice

> You want to visit your friend for a week. You will return Sunday night.
>
> You work every weekday earning $100 per day
>
> There are three flights available - Thursday night flight($275) - Friday Early Morning flight($300) - Friday night flight($325)

Trade-offs vs Opportunity Cost

- **Trade-offs** = all the choices that we *don't* make
  - All choices have trade-offs, by definition
  - We no longer stand to accrue the value of any of the choices we do not make
- **Opportunity cost** = the most valuable of all potential trade-offs
  - Kind of a placeholder for the largest sum of value you lose out on by going with the best choice
  - Possible to be used in the plural: opportunity cost**s**
    - The most valuable subset of size n of the set of tradeoffs

Some Economic Terminology

- **Utility** = satisfaction
  - Very hedonist definition of utility
  - Philosophers might disagree with that
- **Marginal** = additional
  - A term that describes values or costs that accrue as a result of making a choice
- **Allocate** = distribute
  - What marxist nonsense

Price vs Cost

- **Price** = the value that **consumers** dispense of to obtain a product
  - Price is set by the **producer**
- **Cost** = the value that **producers** dispense of to create or refine a product

  - Cost is set by the market

- **Investment** = the process by which producers dispense of value to increase production or efficiency
  - **Consumer Goods** = a product created for providing utility to the consumer
  - **Capital Goods** = the factors of production
    * The utility that **capital goods** provide is used to produce a **consumer good** that is of utility to the **consumer**

Four Factors of Production

1. **Land** = a catchall term for **capital goods** that do not originate from labor
   - Examples
     - Physical land
     - Drinkable water
     - Coal
     - Oil
2. **Labor** = the effort exerted to transform existing **consumer goods** into **capital goods**
   - Examples
     - Slave labor
     - Wage workers
3. **Capital**
   - **Physical Capital** = **capital goods** that are used to generate **consumer goods**
   - **Human Capital** = skills gained through practice
4. **Entrepeneurship** = individuals with the ideas and skill to create goods and services that are of value to the consumer
   - Role of Entrepeneurship
     - Takes initiative
     - Innovation
     - Assumes the risk of business ventures
   - Incentive is sweet, sweet **profit**
     - **Profit** = **Revenue** - **Costs**
       * **Revenue** = the sum of value obtained by selling the goods produced

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Scarcity

- In order to manage resources requires **government**
  - *Gasp... IT'S SOCIALISM*
    - Nah more like social democracy
- How are resources allocated differently under **capitalism** and **communism**?

The Three Economic Questions

1. What goods and services should we produce?
2. How should these goods and services be produced?
3. Who consumes the goods and services produced?

Political Ideology and the Three Questions

- The answers to *these* questions determines what **economic system** the society operates by
  - **Economic System** = the methods involved in how production and consumption take place
- Three **economic systems**
  1. Centrally-planned economy
     - Also called a "Command" economy
  2. Free market economy
  3. Mixed economy
     - What the US and most liberal democracies are

Centrally Planned Economies

- Characteristics
  - A government entity owns all the resources
  - A government entity answers the three questions
- *Why do centrally planned economies face problems of poor-quality goods, shortages, and unhappy citizens?*
  - Imperialism
  - Government bureaucracy
  - Apparently no incentive to work hard
    - Classic.. Just *classic*.

Free Market Economies

- **Laissez Faire** = "let it be"
  - Economic principle that the market is self-regulating and government regulation is just inefficient
- **Private property rights** = the legal and moral right to dictate how certain resources that are "owned" can be used and distributed
  - Private property is *key*
- **Profit-motive** = ~~people~~ entrepreneurs are motivated to create quality products because of **profit**
- **Invisible Hand of the Market** = pressures exerted on producers because of competition and self-interest
  - Free-market enthusiasts believe those pressures make the market efficient and *moral*

Mixed Economies

- *somewhat* of a mix between centrally planned economies and free-market economies
- The system that most modern liberal democracies are
  - Examples
    - United States
    - United Kingdom
    - Canada
    - France
    - *etc*

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Production Possibilities Frontier(PPF)

- Also called the **production possibilities curve(PPC)**
- A model of how resources can be allocated to produce commodities
  - Useful for demonstrating scarcity, trade-offs, opportunity cost, and efficiency
- Four assumptions

1. There are only two commodities can be produced
2. Theoretical 0% unemployment rate
   - *Perfect efficiency*
3. We have a finite, fixed amount of resources
   - *Ceteris Paribus* = fixed resources
4. We have a stagnant amount of technology
   - If technology were changing when we were producing our **PPF**, then our graft would be shifting constantly

Example of PPF

- INSERT GRAPH 1-1 here

Economics Based on the PPF

- Each point is a *possible* production scheme
  - If you chose any one point, your **trade-offs** are all the other points
- **Efficiency** = the line represents *perfect efficiency* of resource utilization
  - If your production is plotted *below* the curve, there is present some source of inefficiency
    - Unemployment, etc
  - If your production is plotted *above* the curve, then you are high
    - It is by definition *more* than perfectly efficient, which isn't possible
- **Opportunity cost** is represented by the slope of the curve at any given point
  - **Constant opportunity cost** = a situation wherein the **ppf** is a straight line
  - **Law of Increasing Opportunity Cost** = a theorem that stipulates that in most **ppf** curves, the opportunity cost(slope of the line) increases in magnitude
    - Think of the bowed curve; the "negative-ness" of the slope constantly increases
    - Resources do not linearly transfer between the requisites for producing two commodities
      - What if the resources are *currency*?
      - Commodity A costs some amount x per unit
      - Commodity B costs some amount y per unit
      - The linear rate of exchange between A and B should just be the ratio $\frac{x}{y}$

How Can the PPF Shift?

1. Change in the quantity of resources or the efficiency by which we can use existing resources
2. Change technology–extract resources more efficiently, produce more efficiently
3. Trade
    - If two countries have different optimal points, they can trade to make each other better off
    - Trade balance is typically in favor of those who produce **capital goods**

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Types of Efficiency

- **Productive efficiency** = the extent to which the productive capacity of a society is being fully utilized
    - All points along the **ppf** are equally *productively efficient*
- **Alocative efficiency** = the extent to which the permutation of production possibilities aligns with what the society at large desires
    - If a point isn't along the **ppf**, then it is not efficient in the productive or allocative capacity

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Trade

Why Do People Trade?

- *In general,* ***people*** *trade so that they can obtain goods they either don't have the means to produce themself or possess a high opportunity cost for producing it themself*
- In economics, people become **specialized** in labor
    - Different people are good at different things
    - As result people do what they're best at and then they *trade*
    - *Supposedly*, trade increases human welfare for both parties
        * Unless you're a third world country

Absolute and Comparative Advantage

- **Per unit Opportunity Cost** = basically just the opportunity cost per unit produced
- **Absolute Advantage** = a disparity in productive efficiency pertaining to some product
  - With respect to **output**, the nation with the *highest* output has the **absolute advantage**
  - With respect to **input**, the nation that can produce a unit of product using the *fewest* resources has the **absolute advantage**
- **Comparative Advantage** = a disparity in **per unit opportunity cost** pertaining to some product
  - The idea is that each nation should produce for what their opportunity cost is lowest
  - With respect to **output**, the nation with the lowest **per unit opportunity cost** has the **comparative advantage**
- Which is more important: **absolute** or **comparative** advantage?
  - It depends on the circumstances
    - If production *efficiency* is desired, then nations should specialize to produce the product they have the **comparitive advantage** for
    - If production *quantity* is desired, then nations should specialize to produce the product they have the **absolute advantage** for
      - *e.g.* Wartime arms production: the nation's safety is on the line

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Demand

- **Demand** = a metric of how *willing* and how *able*
- **Law of Demand** = **price** is inversely related to **quantity demanded**
  - Why does the law of demand *work*?
    1. **Substitution Effect** = *if the price of a product changes, consumers may change habits by purchasing a substitute*
       - Only affects the **quantity demanded**
    2. **Income Effect** = *if the price of a product changes, the* ***purchasing power*** *of consumers increases*

        * They are able to purchase *more*
    3. **Law of Diminishing Marginal Utility** = *the per-unit utility of a product is inversely related to the quantity purchased*
- **Demand Schedule** = the permutation of **prices** and **quantity desired** that the consumer would act in accordance with
    - A demand curve is just a graphical representation of a **demand schedule**
        * Is downward-sloping, because of the three factors
    - When interpretting the data, one should assume all else being equal(income, etc)
        * *ceteris paribus*

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Price and its Relation to Quantity Demanded and Demand

- **BIGGEST RULE OF ALL RULES**: *price of a good **never** shifts the demand curve for that good*
    - Rather, there is an inverse relationship between price and quantity demanded
    - HOWEVER, the price of complement and supplement goods *will* change demand
- If **price** doesn't shift demand, what does?
    - Answer: *the five shifters of demand*

Five Shifters of Demand

1. Tastes and preferences
    - Different people like different things at different times
2. Number of consumers
    - If there are more consumers in an area, quantity demanded will increase across the board
3. Price of related goods
    - Demand curves of **complement goods** are tied together
        - *e.g.* Cereal shift in demand -> milk shift in demand

- Demand curves of **substitute goods** are inversely related
  - *e.g.* Coffee demand decreases, tea demand increases

4. Income
   - Consumer purchasing power shifts and quantity demanded shifts across the board
   - **Normal goods** = a good whose demand curve is directly related to a shift in consumer goods
     - Think of them as *luxury* goods
     - Mo' money -> Mo' meaningless consumerism
   - **Inferior goods** = a good whose demand curve is inversely related to a shift in consumer purchasing power
     - Examples
       * Used cars
       * McDonalds
5. Consumer expectations
   - Hype about products shifts demand

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Supply

- **Supply** = a term that describes producers propensity to produce a certain number of **quantity supplied** for any given **price**
  - **Quantity supplied** = the number of units of a product produced
    * If price is *high*, producers want to produce more to take advantage of the higher profit margin
    * If price is *low*, producers want to produce less to mitigate loss
- **Law of Supply** = *there is a positive correlation between quantity supplied and price*

Five Shifters of Supply

1. Price/supply of inputs to production
   - *e.g.* labor costs are higher due to those pesky communists demanding a livable wage
2. Number of sellers

- if there are *more* sellers, overall supply increases
  - If demand stays constant, that results in a **equilibrium price** decrease
    - **Equilibrium price** = the price at which **quantity demanded** and **quantity supplied** are equal

3. Technology
   - *Typically* technology progression results in more efficient utilization of resources
     - Leads to an increase in supply
4. Government Taxes & Subsidies
   - Government offen subsidizes small business to maintain competition in the market
5. Expectations of Future Profit
   - Production goes where the profit is
     - If future price of good is expected to be high, production *now* will increase

Price and Supply

- Just like demand, **price** of a good NEVER shifts supply for that good
  - Rather, the supply curve relates *each* price to a corresponding quantity supplied

Surplus and Shortage

- **Surplus** = a term that describes a situation in which quantity supplied is *greater* than quantity demanded
- **Shortage** = a term that describes a situation in which quantity supplied is *less* than quantity demanded
- Theoretically, the market will adjust by raising or lowering the price to make up for a **shortage** or **surplus**

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Circular Flow

- There are *two* markets

  - **Product Market** = a market where goods and services are sold to consumers
    - Fundamentally for **consumer goods**
  - **Resource/Factor Market** = a market where input and capital is sold to producers
    - Fundamentally for **capital goods**
- Value flows in a circular way to and from different parts of the cycle
  - The government can modulate the process through taxes and subsidies
- **Private Sector** = the subset of the economy that consists of privately owned businesses and individuals
- **Public Sector** = the subset of the economy that consists of public goods and government projects
- **Factor Payments** = payments for capital
  - Roughly synonomous with "costs"
  - *e.g.*
    - Wages
    - Rent
    - Physical capital
    - Interest on loans
- **Transfer Payments** = a government action that redistributes wealth or income
- **Subsidies** = a patronage of a particular business or industry using public tax-dollars