

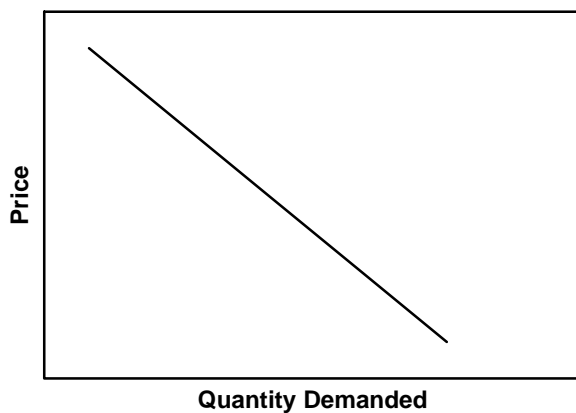


## Notes – Topic 3

### Topic 3: Supply and Demand

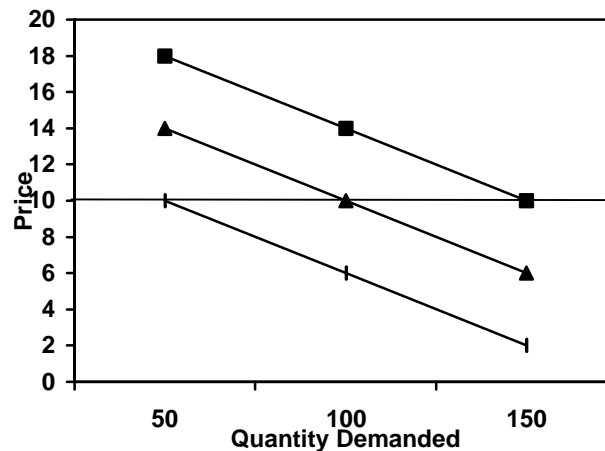
- I. 90% of economics can be reduced to supply and demand analysis.
- II. Specifics discussed mainly in microeconomics
- III. The Demand Curve
  - a. Inverse relationship between price of a good / service and the amount consumers wish to purchase

### The Demand Curve



- b. Law of Demand
  - i. As the price rises, the quantity demanded falls.
  - ii. As the price falls, the quantity demanded rises.
  - iii. Not true in all situations, but overall a good guideline.
- c. How much does it change?
  - i. No answer in this course.
  - ii. Answer is very complicated and discussed in microeconomics.
  - iii. Elasticity – slope of the curve can change.
- d. Movement along curve *only* tells us the response in demand to a change in price.
- e. Ceteris paribus (“all other things being equal”) – Assumes all factors affecting demand *besides* price remain constant. Otherwise the whole curve moves.
- f. Shifts in the demand curve
  - i. All other factors result in a *shift* in the demand curve to the right or left
  - ii. Shift to the right when consumers decide they want more of the good *at a given price*.

### Shifts in the Demand Curve



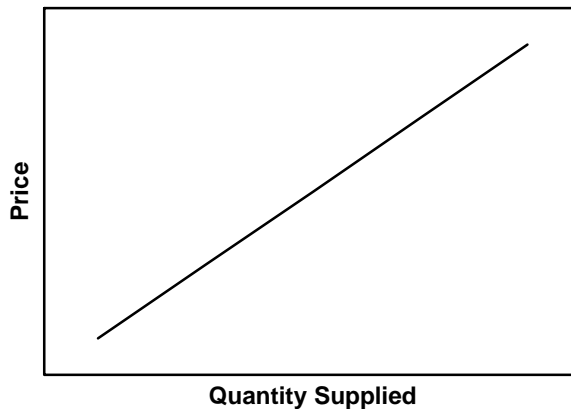
#### g. Other Factors Affecting Demand

- i. Consumer preferences. Influenced by new factual information or inexplicable tastes / fads.
- ii. Consumer incomes
  1. "Normal Goods" → Goods for which, when consumer incomes rise, people buy more. *Direct* relationship.
  2. "Inferior Goods" → Goods for which, when consumer incomes rise, people buy less. *Inverse* relationship.
    - a. Fairly cheap; "better," more expensive substitutes exist.
    - b. Used cars. Only purchase used car when income is low. If income rises, *fewer* used cars are bought – more new cars instead.
    - c. Unprocessed Flour. Classic example. Used to make homemade bread instead of more expensive store-bought.
- iii. Number of consumers.
  1. More people buy more things.
  2. Some segments of the population buy things disproportionately; when those segments increase in size, so does the demand for things they buy.
  3. Baby boomers to retire starting in 2010. Will be a rise in "elderly people" goods (condos, assisted living, hip replacement, etc).
- iv. Prices and availability of related goods
  1. Substitutes
    - a. Goods considered closely interchangeable. Dell vs. Compaq
    - b. Direct relationship. Price goes up, demand for substitute goes up.
  2. Complements
    - a. Goods better if consumed together. Computers and computer monitors.
    - b. Inverse relationship. Price of goes up, demand of complement goes down.
- v. Expectations of future price changes
  1. Not the same as actual price changes.
  2. Will affect demand even if the price never actually changes.
  3. Expectation of price increase shifts demand curve to the right (people want more).

#### IV. Supply Curves

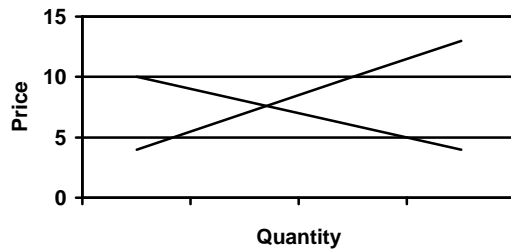
- a. Relationship between quantity supplied by producers of goods and their prices.

## The Supply Curve



- b. Factors Affecting Supply
    - i. Any factor affecting production cost
    - ii. Technology
      - 1. Better technology increases productivity. (Productivity → Amount produced per worker-hour)
      - 2. Always shifts out (to the right) since technology never regresses. Barring massive fall of society (submergence of Atlantis, collapse of Rome).
    - iii. Price and availability of inputs.
      - 1. If price of inputs goes up, supply goes down.
      - 2. If price of inputs goes down, supply goes up.
    - iv. Government Regulations
      - 1. More regulation = Higher production costs = Less supply.
      - 2. Subsidies → Financial incentives from the government to industry. Subsidization leads to increased supply. Ex: University Education. Loans, grants, etc.
    - v. Random Shocks
      - 1. "CatchAll" category. Everything else.
      - 2. Either positive OR negative.
      - 3. Ex: Wars, draughts, Acts of God = Negative.
      - 4. Ex. Good weather = Positive
    - vi. Collusion among suppliers
      - 1. Competition prevents this, but some industries don't have enough competition.
      - 2. Reduce production to drive up costs. Must get all major suppliers working together.
- V. Market Equilibrium

## Market Equilibrium



- a. Point of equilibrium is the intersection of the supply and demand curves for a given good or service.
- b. Actions on both supply and demand sides are coordinated. Exactly the amount demanded is being produced – no more, no less.
- c. The miracle of markets (that this works)
- d. No surpluses ( $Q_s > Q_d$ )
- e. No shortages ( $Q_s < Q_d$ )
- f. No internal pressure to change once at equilibrium
- g. All factors causing either curve to shift will disrupt the equilibrium
  - i. After an adjustment period, new equilibrium will be found.
  - ii. If the curves shift in opposite directions, the result can be ambiguous. Perhaps the changes cancel out? Perhaps one change is bigger?
- h. Perfectly competitive market → Many suppliers producing essentially the same goods.
  - i. Equilibrium in perfectly competitive market leads to market *efficiency*
    1. No waste of resources
    2. No misallocation of resources
      - a. Not using resources in the wrong places.
      - b. “Too much” / “Too little” in any place defined by consumer demand for output.
      - c. Too few resources to the widget industry means not enough widgets are available to buy. Shortages ( $Q_d > Q_s$ )
      - d. Too many resources in one industry leads to a Surplus ( $Q_s > Q_d$ )
    3. Market is thus being balanced automatically. Adam Smith’s Invisible Hand

## VI. Disequilibrium

- a. Full disclosure: Probably *all* markets (certainly most) are not at equilibrium at any given moment. Constant state of flux; point of equilibrium constantly shifting.
- b. Equilibrium used as benchmark. Markets should be constantly tending *toward* it.
- c. Prices must be flexible to get equilibrium.
- d. Government regulations may fix prices, as do long-term labor contracts locking workers into one wage despite economic change.
  - i. Government price-floors, price-ceilings.
  - ii. Ceiling. Price cannot go *above* a set price.
    1. “Protects” consumers against unfairly high prices.
    2. Results in shortage. Not enough supply to meet consumer demand, since more people want to buy at lower prices but fewer suppliers want to produce.
  - iii. Floor: Price cannot go *below* a set price.
    1. “Protects” industry from unfairly low prices.
    2. Results in surplus. More suppliers interested in producing, but fewer consumers interested in buying.