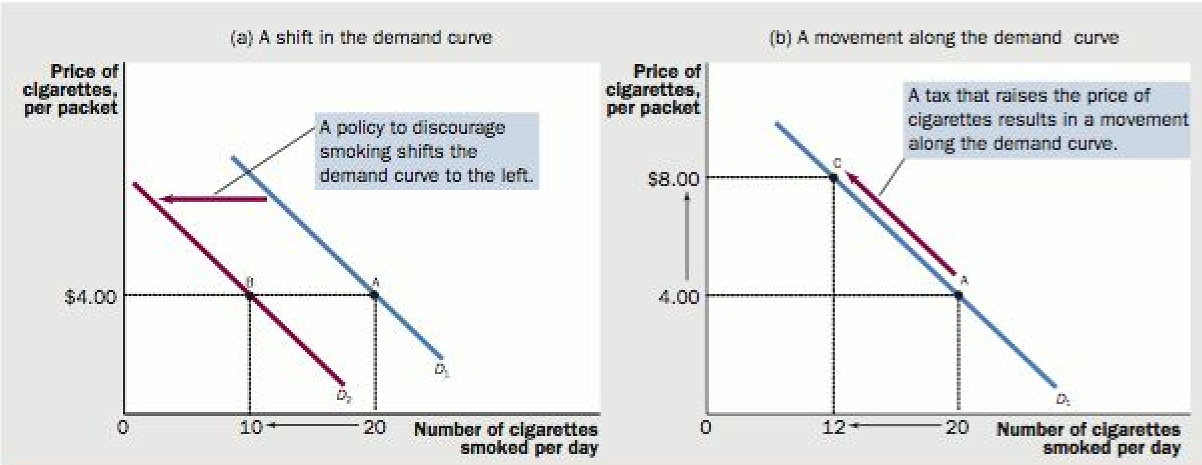
Supply and Demand

Demand

- Law of Demand: when the price of a good increases/decreases, the quantity demanded of a good decreases/increases - inverse relationship
- Other factors (other than price) that affect demand (cause a shift in the demand curve:
    - **1. Price of related goods in consumptions**
        - i) Substitutes: two goods that can be **used in place of each other**
            - e.g. butter and margarine; DVD rentals and movie tickets
            - For any two goods, if an increase/decrease in price of one good causes an increase/decrease in demand for others - they are substitutes
        - ii) Complements: two goods that are **used together**
            - e.g. Petrol and cars; cameras and batteries; computers and software
            - For any two goods, if an increase/decrease in price of one good causes a decrease/increase in demand for the other good - they are complements
    - **2. Income**
        - i) Normal good - increase/decrease in income causes an increase/decrease in demand
            - An increase in income means you have more to spend on most goods
        - ii) Inferior good - increase/decrease in income causes a decrease/increase in demand
            - For some goods, like bus rides, as your income increases you are more likely to use a car or take taxis and less likely to take the bus
    - **3. Price expectations**
        - An increase/decrease in expected price causes an increase/decrease in demand
    - **4. Tastes and preferences**
        - An increase/decrease in preference for a good causes demand to increase/decrease
    - **5. Number of buyers**
        - An increase/decrease in the number of buyers in a market causes demand to increase/decrease

Figure 4.4 **Shifts in the demand curve versus movements along the demand curve**



If warnings on cigarette packets convince smokers to smoke less, the demand curve for cigarettes shifts to the left. In panel (a), the demand curve shifts from D_1 to D_2. At a price of $4 per packet, the quantity demanded falls from 20 to 10 cigarettes per day, as reflected by the shift from point A to point B. In contrast, if a tax raises the price of cigarettes, the demand curve does not shift. Instead, we observe a movement to a different point on the demand curve. In panel (b), when the price rises from $4 to $8, the quantity demanded falls from 20 to 12 cigarettes per day, as reflected by the movement from point A to point C.

- ➔ A change in the good's price represents a movement along the demand curve, whereas a change in one of the other variables shifts the demand curve

Supply

- Law of Supply: when price of good increases/decreases, the quantity supplied of a good increases/decreases
- There are many factors that determine selling plans:
  - The price of the good
  - Expected future prices
  - Price of inputs
  - Prices of related goods in production
  - Change in technology/efficiency
  - Random events, such as weather
    - e.g. Weather for the crops for farmers
- Factors that affect supply/cause a shift in the supply curve:
  - **1. Price of inputs (e.g. labour and materials)**
    - Increase in price inputs - increase cost of production - decrease supply
    - Decrease in price inputs - decrease in cost of production - increase supply
  - **2. Prices of related goods in production**
    - i) Substitutes in production: substitutes in production are two goods that can be **produced in place of one another** using the **same** factors of production

- Like firms producing dishwashers and washing machines or farms producing maize or wheat
  - e.g. As the price of dishwashers increases relative to washing machines, the firms likely to supply less washing machines
- For any two goods, if an increase/decrease in price of one good causes a decrease/increase in supply of the other good - they are <u>substitutes</u> in production

- ii) <u>Complements in production</u>: complements in production are two goods that are produced **together** using the **same** factors of production
  - Like firms producing petrol and lubricants
    - e.g. As the price of petrol increases the firm is likely to supply more lubricants
  - For any two goods, if an increase/decrease in price of one good causes an increase/decrease in supply of the other good - they are <u>complements</u> in production

- **3. Changes in <u>technology/efficiency</u>**: introduction of new technology that increases/decreases efficiency of production - increase/decrease in supply
- **4. Price expectations**: increase/decrease in expected price tomorrow - decrease/increase in supply today
- **5. Random events**:
  - e.g. weather such as drought, earthquakes, etc - cause a decrease in supply
- **6. Number of sellers:** increase/decrease in the number of sellers in a market causes supply to increase/decrease

➔ A change in the good's price represents a movement along the supply curve, whereas a change in one of the variables shifts the supply curve

Market equilibrium

- <u>Law of supply and demand:</u> the price of any good adjusts to bring the supply and demand for that good into balance
  - Excess demand occurs in a market when there is a **<u>shortage</u>** of a good
  - Excess supply occurs in a market when there is a **<u>surplus</u>** of a good

Comparative static analysis

- Analysis of changes in supply and demand

Elasticity

<u>Elasticity</u> is a measure of how much buyers and sellers respond to changes in market conditions

- Demand:
  - Price elasticity of demand