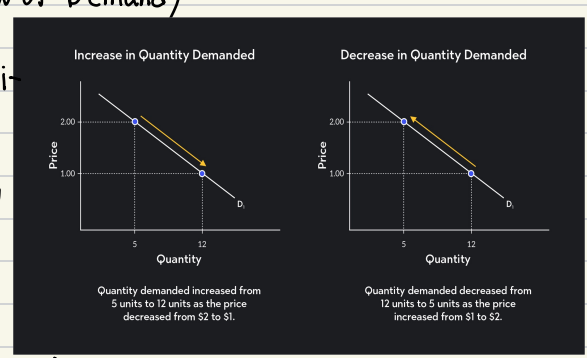
2.1 Demand and Supply

- Market: where buyers and sellers carry out economic transection
- Demand: the quantity of a good or service that consumers are willing and able to purchase.

  The ability to buy → effective demand (shown on demand curve)
- The Law of demand: Price↓, Quantity↑, Ceteris paribus (condition of all other things are equal) Eg:

Price	Quantity demanded
2	100
1.2	150
0.8	225

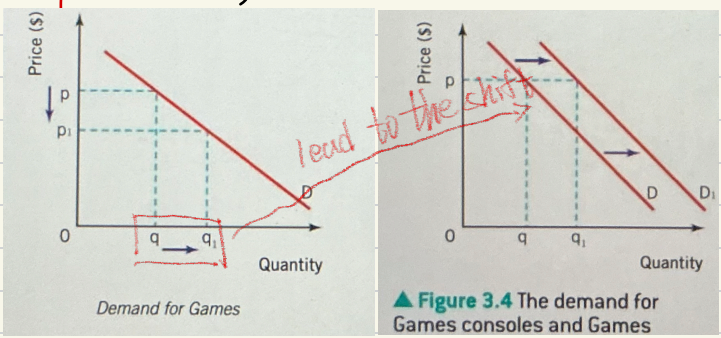
- Demand curve (Based on Law of Demand)
  - convex to the origin
  - a change in price will definitely
  - Important phrases:
    change in the quantity demanded (different from other changes caused other factors)



- The reason for demand to increase
  - Income: when price fall, people's real income increases
  - Substitution: when the price of a good is relatively cheaper than others, consumers are more likely to substitute the cheaper good.

- The non-price determinants of demand.

1. Complements (products that are purchased together)
   - A change in price of a product will affect the demand of other products
   Eg: A decrease of game's price will lead to an increase of quantity demanded, which causes a movement to the right

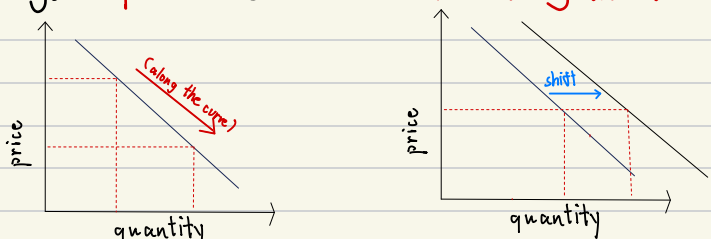


Demand for Games

▲ Figure 3.4 The demand for Games consoles and Games

2. Taste and preferences (consumer's taste and preference on consumer's demand)
3. The size of population
4. Changes in the age structure of the population
5. Change in income distribution.

- The distinction between a movement along the curve and a shift of the curve
  - A change in price lead to a movement along the curve



- A change in non-price determinants of demand will always lead to a shift of the demand curve

- Unit 3: Market equilibrium, the price mechanism and market efficiency

n. equilibrium
v. equilibrate

- Equilibrium 均衡 : a state of resg, self-perpetuatin (自我 延续) in the absence (without) of any disturbance (interrupt)
  - If some external element interrupt the equilibrium, then it is in disequilibrium, this stage leasts until it is in a new equilibrium situation.

> In Figure 3.1, both the demand and supply curves for coffee are in the same diagram and we see that, at the price Pe, the quantity Qe is both demanded and supplied. We would say that the market is in equilibrium at the price Per since the amount of coffee that people wish to buy at that price, e, is equal to the amount of coffee that suppliers wish to sell at that price. The price Pe is sometimes known as the market-clearing price, since everything produced in the market will be sold. The market is in equilibrium, since it will stay like this, in each time period, until there is an "outside disturbance" to change the equilibrium.

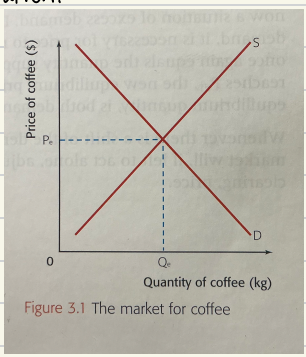
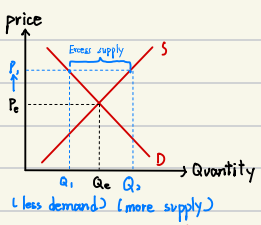
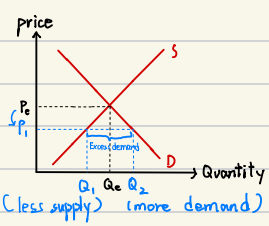


Figure 3.1 The market for coffee

- Excess supply and excess demand
  - Excess supply
    1. when price is forced to rise from Pe to P_1 it will lead to less demand with more supply
    2. More is supplied than demand, which cause an excess supply of Q_1-Q_2



  - Excess demand
    1. when price is dropped from Pe to P_1 it will lead to more demand and less supply
    2. Excess demand of Q_1-Q_2

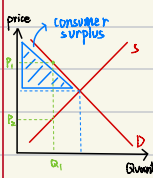


- The effect of changes (non-price determinants) in demand and supply upon the equilibrium
  When the demand curve shifts to the right (D_1 to D_2), the price remains at P_{e1}, supply remains but the demand is raised, it will cause an excess demand ($Q_{e1}-Q_3$)

- Price mechanism
  - Price mechanism moves market to equilibrium, helps to allocate scarce resources
  - How does it work?
    ① an increase in the price of a certain good
    ↓ a signal to producer that what is in the consumer's preference
    ② higher price give producers an incentive, as they want to maximise their profit
    ↓
    ③ producers would like to produce more of this sort of good.

I have been falling down falling)

— Consumer Surplus extra satisfaction (utility) gained by consumers from paying a price that is lower than that which they are prepared to pay.



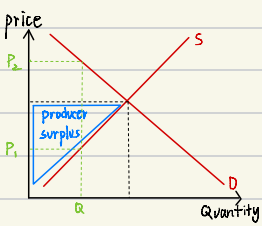
Eg: a movie ticket's price is $7 ($P_2$), but a consumer was willing to pay $10 ($P_1$) for it, the consumer enjoys a surplus of $3 ($P_1$-$P_2$)

Area: the area under demand curve and above the equilibrium price

— Producer Surplus

The excess of actual earning that a producer makes from a given quantity of output

Eg: A producer is willing to sell a bottle at $3 ($P_1$), but he earned $7 ($P_1$-$P_2$) for each bottle in the actual price of $10 ($P_2$). The producer surplus for each ticket is $7.



Area: Triangle that under the equilibrium price and above supply curve.

— Allocative Effiency

- When the market is in equilibrium, it is said to be in a state of allocative effiency
- At equilibrium point, the community surplus (producer surplus + consumer surplus) maximised

When we assume that the costs of the industry are equal to the costs to society then the supply curve represents the social cost curve. In efficiency analysis we call this the marginal social cost curve (MSC). The demand curve is determined by the utility, or benefits, that the consumption of a good or service brings to the consumers. Again, if we assume that the benefits in the market are equivalent to the benefits to society, then the demand curve represents the social benefits. In efficiency analysis we refer to the demand curve as the marginal social benefit curve (MSB).

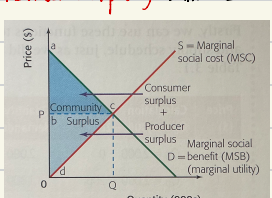


Figure 3.7 Community surplus

— Elasticities 弹性

· Elasticity is a measure of responsiveness (ability to response)

· Elasticity of demand — How demand of a product is changed when there is a change in one of the 3 factors :

① Price Elasticity of Demand (PED)

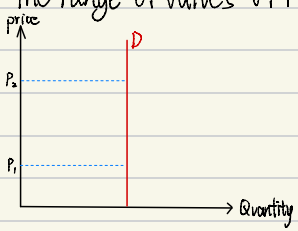
· Equation: $PED = \frac{\text{Percentage change in quantity demanded of the product}}{\text{Percentage change in price of a product}}$

· The negative valve means there's an inverse relationship between price and quantity demanded

· The negative valve shouldn't present.

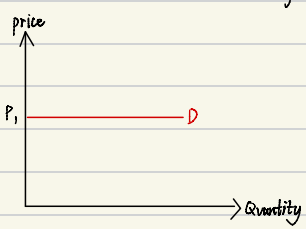
· The range of valves of PED: 0~ infinity (no negative number), these two extreme and theoretical cannot be real. The real valves lies in between.

Figure 4.1



S1: If PED is 0, the change in price will have no effect on the quantity demanded (shown in figure 4.1)
It is called an perfectly inelastic (无弹性) demand curve

Figure 4.2



S2: If the valve of PED is infinity, the demand is perfectly elastic.
In F4.2, at the price P_1, Quantity demand in infinite, therefore the demand curve goes straight forever.
But if the price raised above P_1 with any distance, the quantity demanded will fall to zero

· The range of PED (real):

① Inelastic demand: The value of PED is less than one and greater than zero.

Effect: · A change in price leads to proportionally smaller change in the quantity demanded of it
*价格变动低于需求量的变化

· When the price raised, as the demand changes less, the revenue gained by producer is increased.

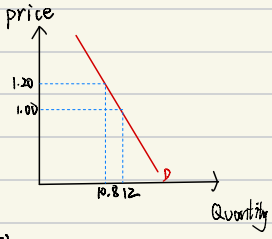
Eg: foods, medicine, water, electricity

> When the price of a carton of strawberry yoghurt is raised from $1 to $1.20, the firm finds that quantity demanded per week falls from 12 000 cartons to 10 800 cartons. Thus a 20% increase in price is causing a 10% fall in the quantity demanded. We can work out the PED by using the equation:

$PED = \frac{\%\Delta \text{ in Quantity demanded}}{\%\Delta \text{ in price}} = \frac{10\%}{20\%} = 0.5$, smaller than 1, inelastic demand

Continue in next page

As we can see, the PED is 0.5, less than one, so the demand for the yoghurt is inelastic. Before the price increase, the total revenue gained by the firm was 12 000 × $1 = $12 000. After the increase, the total revenue becomes 10 800 × $1.20 = $12 960. The firm has increased revenue by raising the price. This is shown in Figure 5.1



(The graph is more perpendicular)