個 體 經 濟 學 一

Microeconomics (I)

1-2 Economic Models

Graphs or Equations(互相牴觸)

- Explanation 解釋能力
- Simplification 簡化

＊ The circular Model

Closed economy(no international trade)

No government, consists of “Households” and “Firms”

Resources: Land, Labor, Capital

F igure1 : circular-flow diagram

physical flow

① Supply of inputs (factors)

② Demand for inputs (factors)

③ Supply of final goods and services

④ Demand for final goods and services

monetary flow

⑤ Income (Rent, Wage, Interest)

⑥ Expenditure (on goods X,Y,Z) $P_X \cdot X+P_Y \cdot Y+P_Z \cdot Z$

⑦ Revenue Firm X：$P_X \cdot X$

Cost (Land, Labor, Capital) + Profit (Entrepreneurship)

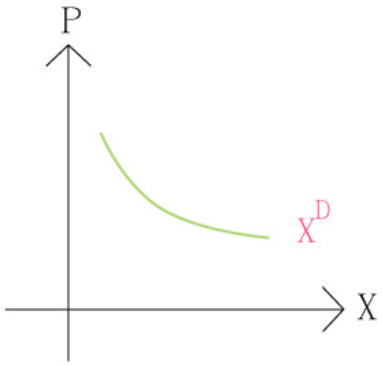
∗ Scope of the Microeconomics

1. Consumer theory- Demand
2. Theory of the firm- Supply
3. Market structure (Demand + Supply) | perfect competition / Monopoly / Oligopoly / Monopolistic competition
4. Market Failure | Asymmetric information / Externality
5. Public good

∗ The demand and supply model (Market)

∗ Demand：quality demand (X^D)- flow

depends on : price (P_X), income(m), price of other goods(P_Y)



F igure2 : Demand curve

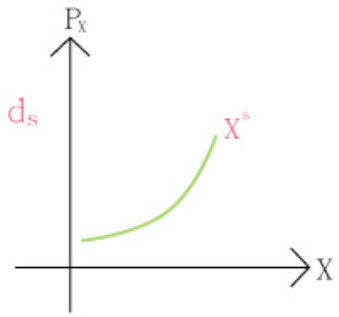
demand curve: relationship between X^D and P_X

(function schedule) X^D : X(P_X; m, P_0…other determinants)

∗ Supply：quality supply(X^S)

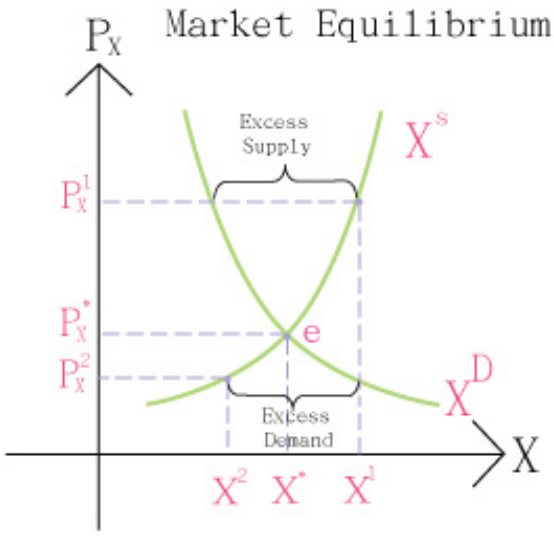
depends on : price (P_X), price of inputs(P_f), price of other goods(P_Y)

X^S : X(P_X; P_f, P_Y…)



F igure3 : Supply Curve

∗ Market Equilibrium



F igure4 : Market equilibrium

∗ Equilibrium analysis

1. Static Analysis $X^D = X^S$

   What is equilibrium? (conditions of an euilibrium)

   EX: What does e look like?

2. Compare static Analysis

   compare two or more equilibrium

3. Dynamic Analysis

   EX: $X^D = 300\text{-}3\,P_X + 1.5m$

   $X^S = 40 + 2\,P_X - 6t$

   (X^D 、X^S: quantities demanded and supplied, P_X: price of good X

m: household income, t: tax on good X)

① m=40, t=5 $\begin{cases} X^D = 360-3P_X \\ X^S = 10+2P_X \end{cases}$

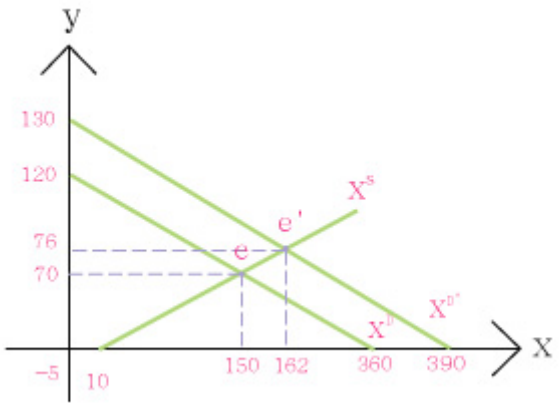
$X^D = X^S$

$360-3P_X = 10+2P_X$

$P_x^* = 70$

$X^* = X^D(\text{at } P_X=70) : X^S(\text{at } P_X=70)$

$= 360-3*70=150$



F igure5 : Demand curve and supply curve of example

② m:40→60

$\begin{cases} X^D = 390-3P_X \\ X^S = 10+2P_X \end{cases}$

$390-3P_X = 10+2P_X$

$P_x' = 76$

$X' = 10-2*76=162$

＊ Compare e and e':

m↑(40→60) → P_X↑(70→ 76)

X↑(100→162)

＊ { necessary / sufficient / necessary and sufficient } condition

1. A→B A implies B(A only if B; B if A)
   A is a sufficient condition for B
   B is a necessary condition for A
2. A<=>B A if only if B