15 January 2024 07:08 PM

Sum of own price, cross price and income elasticity of demand is zero.

$z = f(x_1, x_2)$

If you increase x_1 and x_2 by λ proportion then

$f(\lambda x_1, \lambda x_2) = \lambda^n \cdot z$

$\therefore$ degree of homogeneity is n

then Euler's theorem is

$$\frac{\partial z}{\partial x_1} \cdot x_1 + \frac{\partial z}{\partial x_2} \cdot x_2 = n \cdot z$$

$z = x \cdot y$

$\lambda x \cdot \lambda y$
$= \lambda^2 x \cdot y$
$= \lambda^2 z$

$\therefore$ degree of hom is 2

$$\frac{\partial z}{\partial x} \cdot x + \frac{\partial z}{\partial y} \cdot y = 2 \cdot z$$

$y \cdot x + x \cdot y$
$2 x \cdot y$
$2 \cdot z$

Suppose we consider the demand function of commodity x as $\longrightarrow$ $x = x(P_x, P_y, M)$

(where P_x P_y - - - M are and const.)

Now we know that ordinary demand is homogenous of degree zero. Then we can apply Euler's theorem to get,

$$0 \cdot x = \frac{\partial x}{\partial P_x} \cdot P_x + \frac{\partial x}{\partial P_y} \cdot P_y + \frac{\partial x}{\partial M} \cdot M$$

$$0 = \frac{\partial x}{\partial P_x} \cdot \frac{P_x}{x} + \frac{\partial x}{\partial P_y} \cdot \frac{P_y}{x} + \frac{\partial x}{\partial M} \cdot \frac{M}{x}$$

$$\boxed{0 = e_p^{x} + e_c^{x,y} + e_m^{x}}$$

Proved

What are the determinants of elasticity of Demand.

a. Availability of Substitutes

b. No. of buyers.

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c. Nature of good (like luxury, necessary etc).

d. Income (proportion of income spent).

e. How much time has elapsed since the time has elapsed since the price changed.

Concept of Price and Quantity Control.

There are several govt policies that are designed to

~~(i)~~ prevent the price from rising to the market equilibrium level. — ceiling

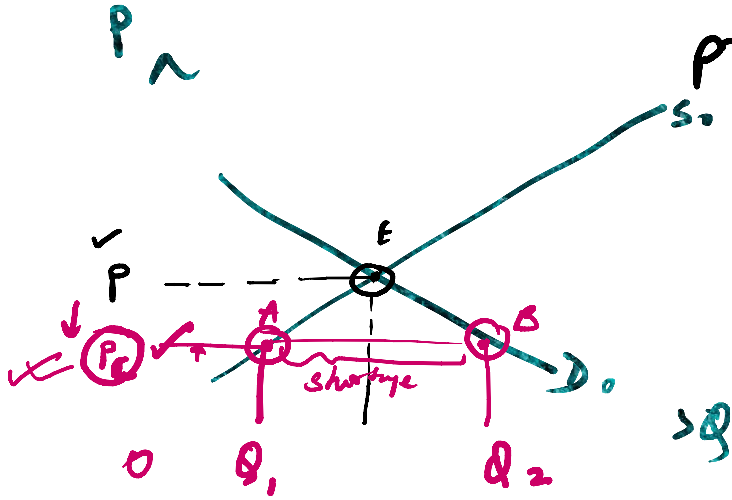
(ii) prevent the price from falling below the market equilibrium level. — Price flooring

(iii) Prevent quantity from reaching the market equilibrium level.

Price ceiling ⇒ fixing the maximum price of a commodity at a level lower than the equilibrium price.

ie price ceilings are higher limits set by the govt on price of products.

set by the govt on price of product.



What are the consequences of price ceiling:

(i) Black marketing. (illegal selling at a price greater than Pc)

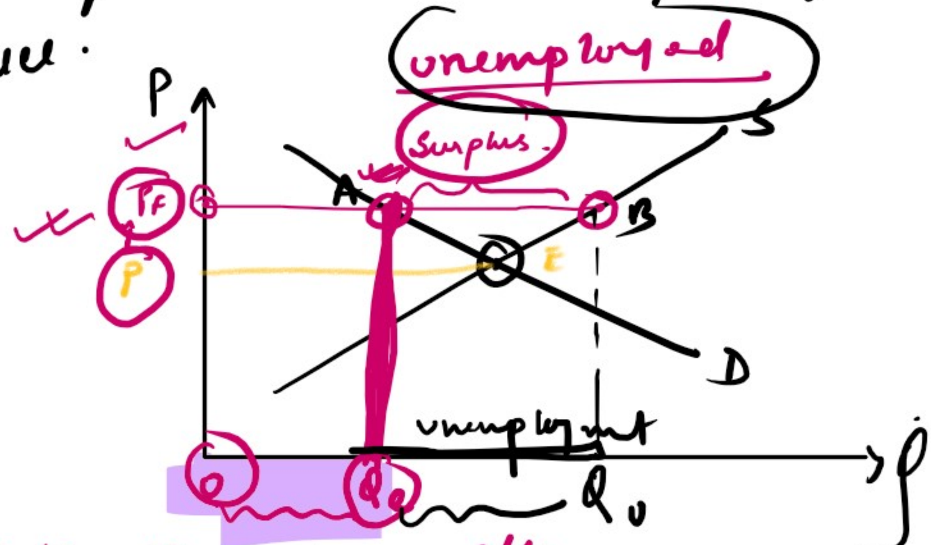
(ii) Rationing System:
it is a technique adopted by the govt to sell a minimum quota of essential commodities at a higher price less than the equilibrium price to supply goods to poor community at a cheaper price.

(iii) Dual Price Policy → prevention of black marketing by introduction of permit system where two prices for same commodity are offered simultaneously. One at a cheaper price through pricing shops while at the same time commodity is also made available in open market at equilibrium price.

available in open market
at equilibrium price.

② Price flooring or Minimum Support Price (MSP)

It refers to the minimum price (above the equilibrium price), fixed by the government which the producers must be paid for their produce.

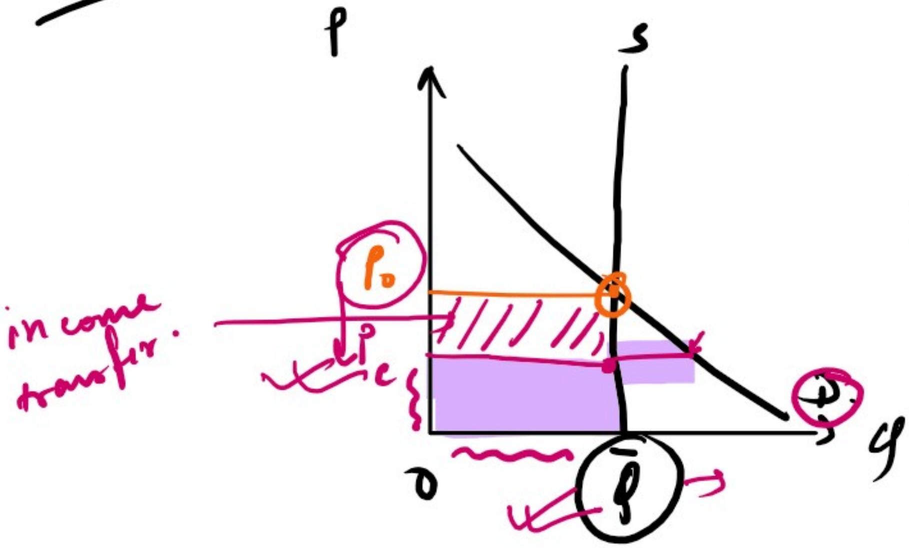


Need for price floor ⇒ mostly common in Labour market
↳ minimum wage legislation.
↳ agricultural price support schemes.

Why import quota → correction of adverse balance of trade condition
→ protecting the domestic market from foreign competition.
→ making domestic market self

→ making domestic market self sufficient.

objective of quantity control ~~and~~ price control → preventing large income transfer to the owner of a particular resource.



ex → rent