

Micro-Economics

Supply and Supply Elasticity

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Supply



1. Meaning
2. Supply function
3. Law of supply
4. Expansion and Increase in supply
5. Contraction and Decrease in supply
6. Elasticity of supply

Supply function



$$S_x = f(P_x, P_f, P_s, E_{px}, t, S, T, G, C)$$

- P_x : Price
- P_f : Price of factors
- P_s : Price of Substitutes
- E_{px} : Expected Price
- T : Tax rate
- S : Subsidy
- T : Technology
- G : Goal of the seller
- C : Climatic condition

Law of Supply



- 1. Statement of the law
- 2. Assumptions of the law
- 3. Supply schedule
- 4. Supply curve
- 5. Exceptions to the law

- Ceteris Paribus, there's a direct relation between price and quantity supplied.

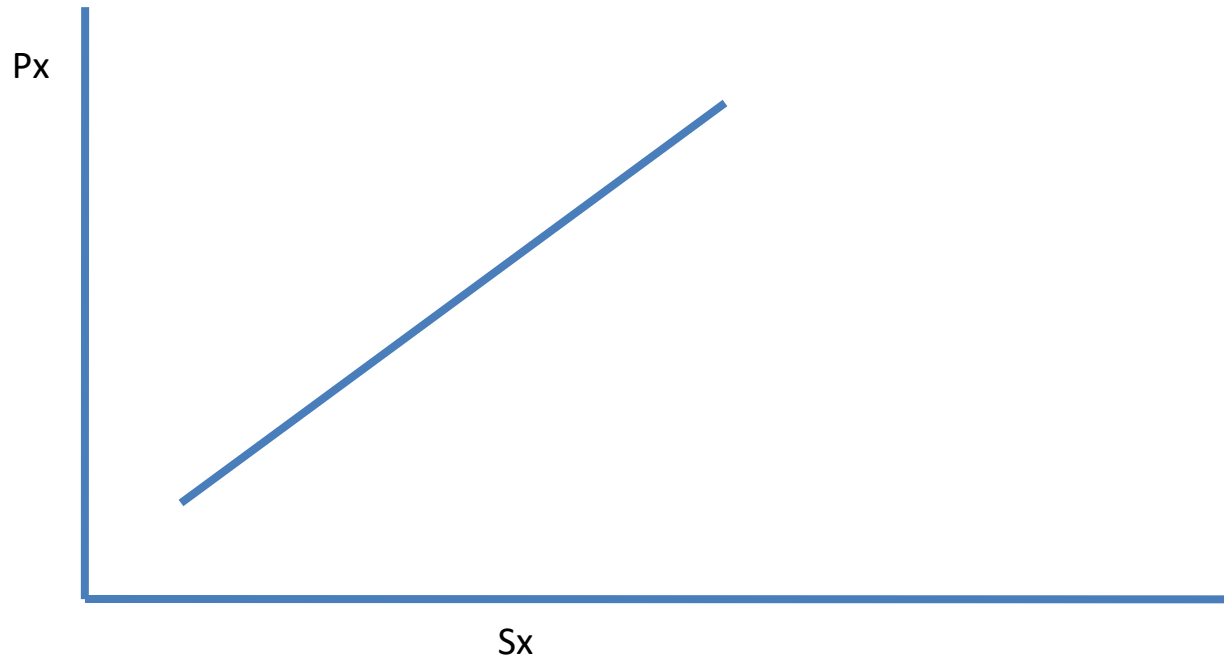
- All factors affecting supply but price remain unchanged.

Supply schedule



P_x (Rs)	S_x (Units)
1	10
2	20
3	30
4	40
5	50

Supply curve



Supply curve for a **normal good** is upward sloping from left to right (Positive slope)

Exceptions to the Law



1. Rare articles
2. Perishable goods
3. Case of labor at higher levels of wages

Expansion and Increase in supply



Expansion in supply (Increase in the quantity supplied)	Increase in supply
$P_x \uparrow, S_x \uparrow$ <u>(P_f, P_s, E_{px}, t, S, T, G)</u>	$\triangle (P_f, P_s, E_{px}, t, S, T, G), S_x \uparrow, P_x$
<p>The seller moves from left to right on the same supply curve.</p>	<p>The entire supply curve shifts from left to right.</p>

Contraction and Decrease in Supply



Contraction in supply (Decrease in the quantity supplied)	Decrease in supply
$P_x \downarrow, S_x \downarrow$ (Pf, Ps, Ep _x , t, S, T, G)	\triangle (Pf, Ps, Ep _x , t, S, T, G) $S_x \downarrow$ P_x
The seller moves on the same supply curve from right to left .	The entire supply curve shifts from right to left .

Elasticity of supply



- Price elasticity of supply
 - a. Meaning
 - b. Formula
 - c. Types
 - d. Factors

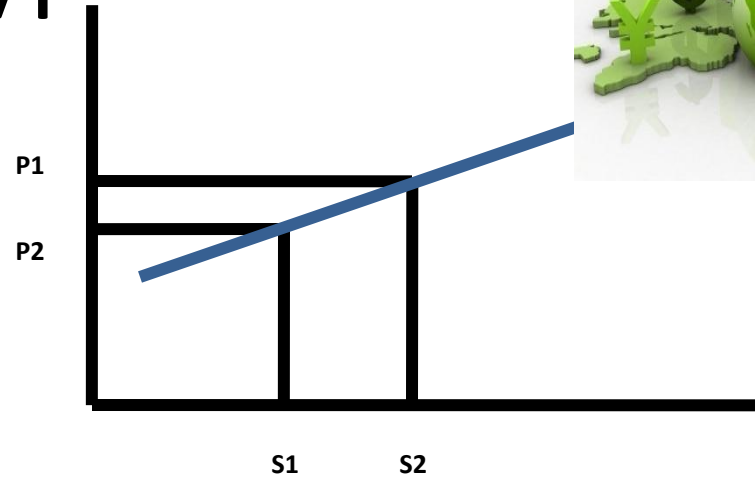
Formula of Pes:



$$\text{Pes} = \frac{\% \text{ change in } S_x}{\% \text{ change in } P_x}$$

Types

1. $P_{es} > 1$
2. $P_{es} < 1$
3. $P_{es} = 1$
4. $P_{es} = 0$
5. $P_{es} = \infty$



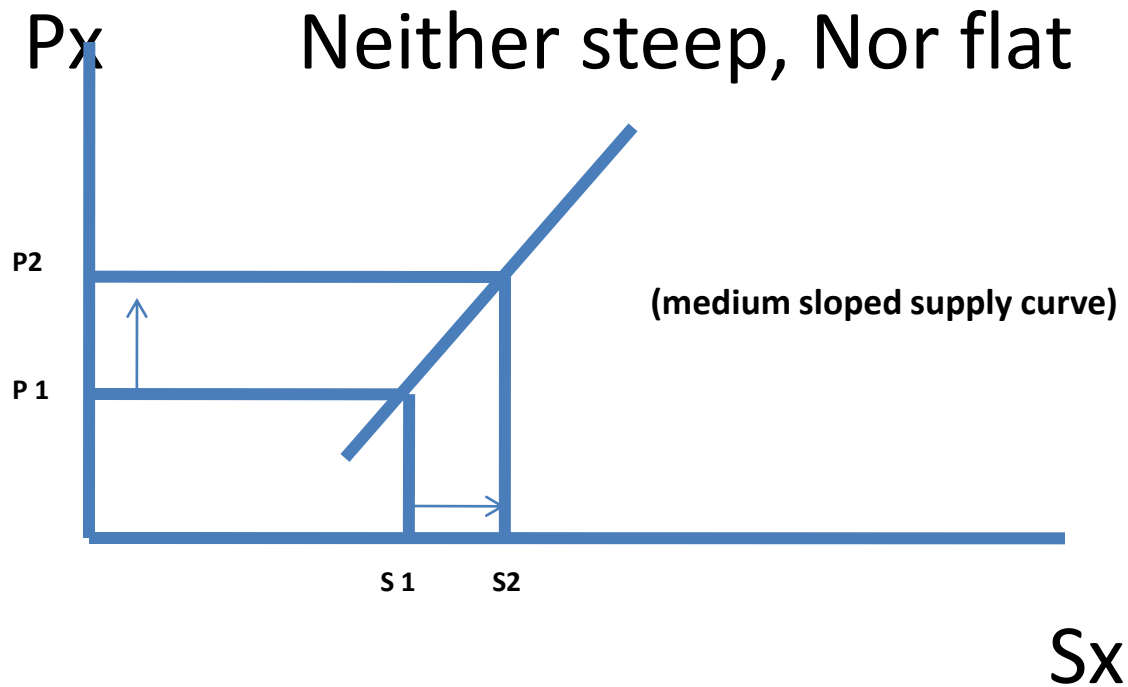
2. $Pes < 1$

Condition: $(\% \triangle S_x < \% \triangle P_x)$



3. $P_{es}=1$

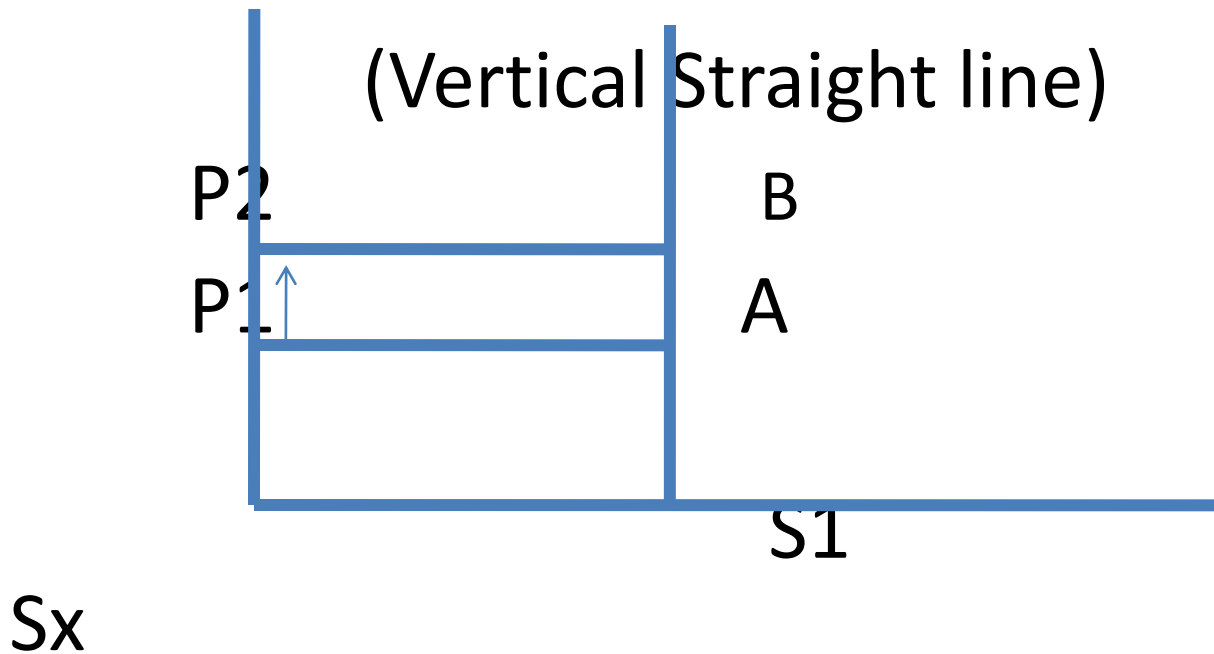
Condition: $(\% \triangle S_x = \% \triangle P_x)$



4. $P_{es} = 0$

Condition: (% \triangle $S_x = 0$)

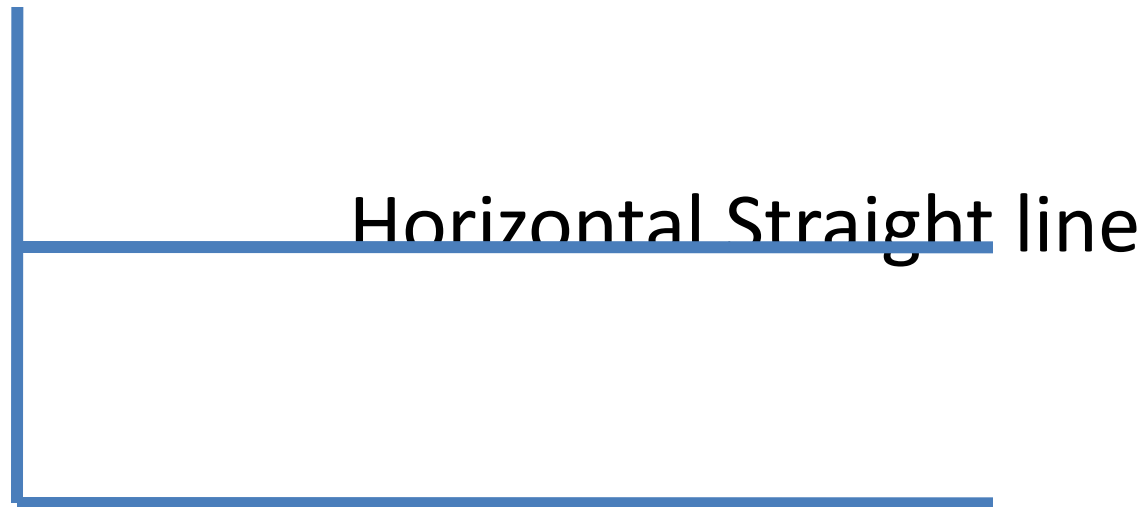
Ex. $P_x = 50\%$ \uparrow , $\overline{S_x}$



5. $PeS = \alpha$



Condition: (A v. small ΔP_x brings v. large ΔS_x)



Factors affecting Pes



1. Unutilized Production Capacity
2. Dependence of output
3. Technology
4. Technique of production
5. Type of labor required
6. Availability of factors and resources
7. Time element
8. Additional cost of production