Elasticità della Domanda rispetto al Prezzo

Variazione percentuale della quantità domandata in risposta ad una variazione percentuale del prezzo

Elasticità della domanda al prezzo

$$\frac{\text{Variazione proporzionale della Q domandata}}{\text{Variazione proporzionale del prezzo}}$$

$$\Delta Q_d\% = \frac{Q_d^2 - Q_d^1}{Q_d^1}$$ Ad esempio….

$Q_d^1 = 50$

$Q_d^2 = 60$

$$\Delta Q_d\% = \frac{60-50}{50} = 0,20 = 20\%$$

$$\Delta P\% = \frac{P_2 - P_1}{P_1}$$

Ad esempio……

$P_1 = 4€$

$P_2 = 2€$

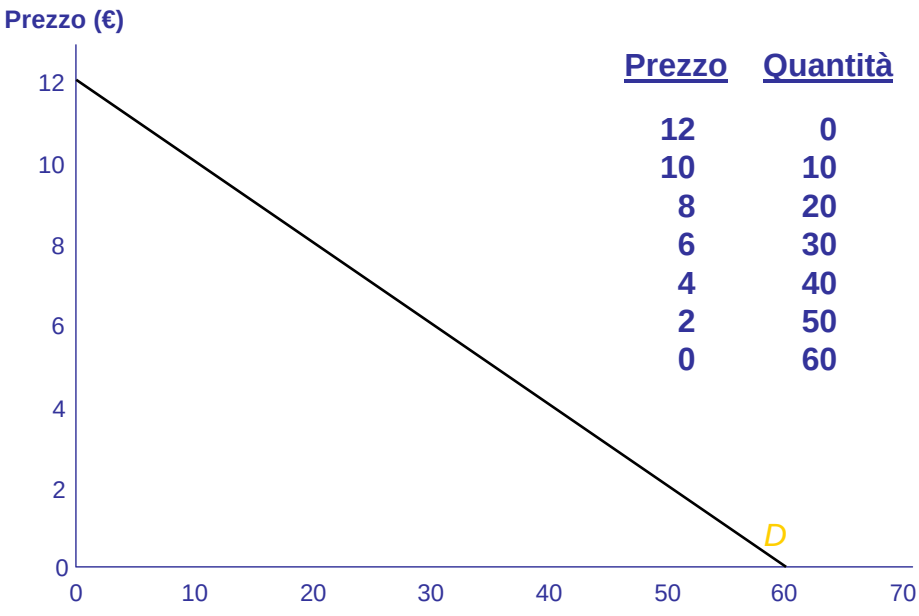
$$\Delta P\% = \frac{2-4}{4} = -\frac{1}{2} = -0,5 = -50\%$$

Quindi: $\frac{\Delta Q_d\%}{\Delta P\%} = -\frac{20\%}{50\%} = -0,4$

Elasticità della domanda al prezzo

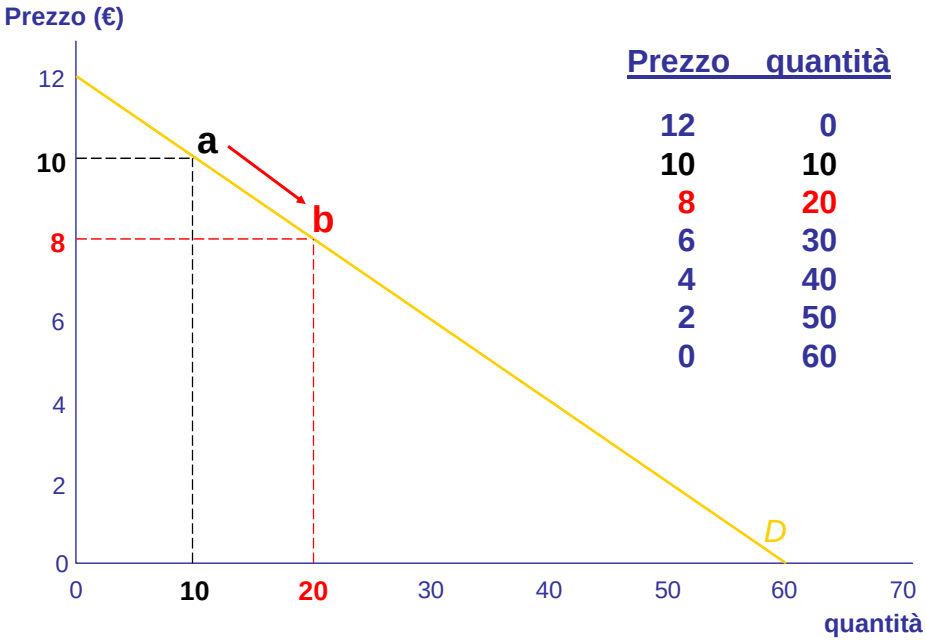
$$\frac{\frac{\Delta Q_d}{Q_d}}{\frac{\Delta P}{P}} = \frac{\Delta Q_d}{\Delta P}\frac{P}{Q_d}$$

Elasticità della domanda al prezzo



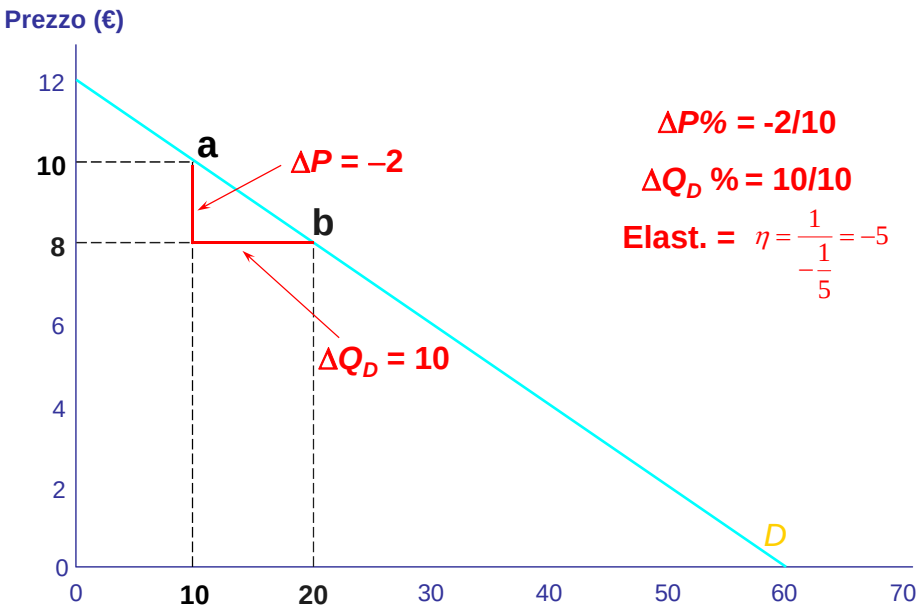
Prezzo	Quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

Elasticità della domanda al prezzo



Prezzo	quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

Elasticità della domanda al prezzo

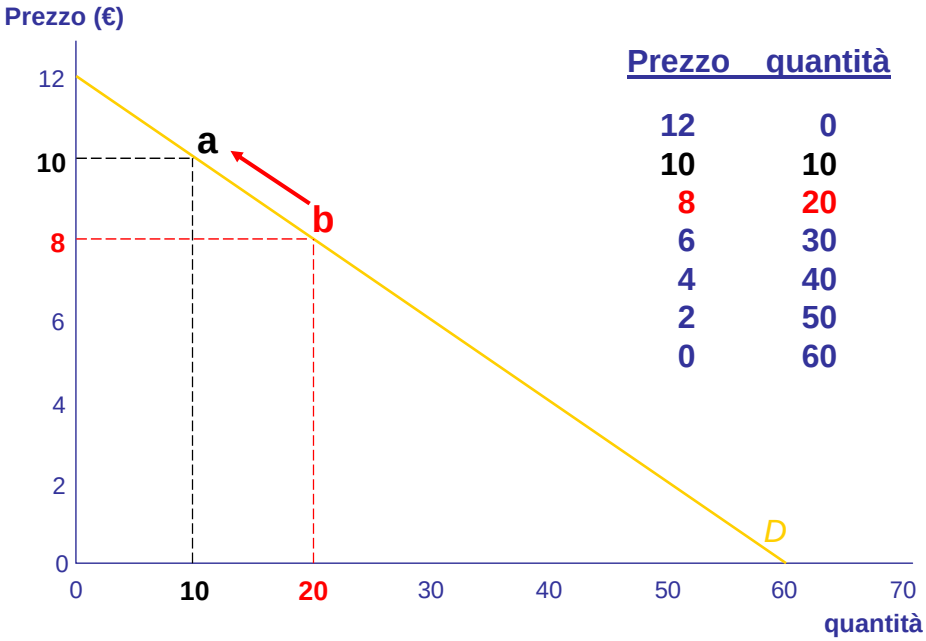


$\Delta P\% = -2/10$

$\Delta Q_D\% = 10/10$

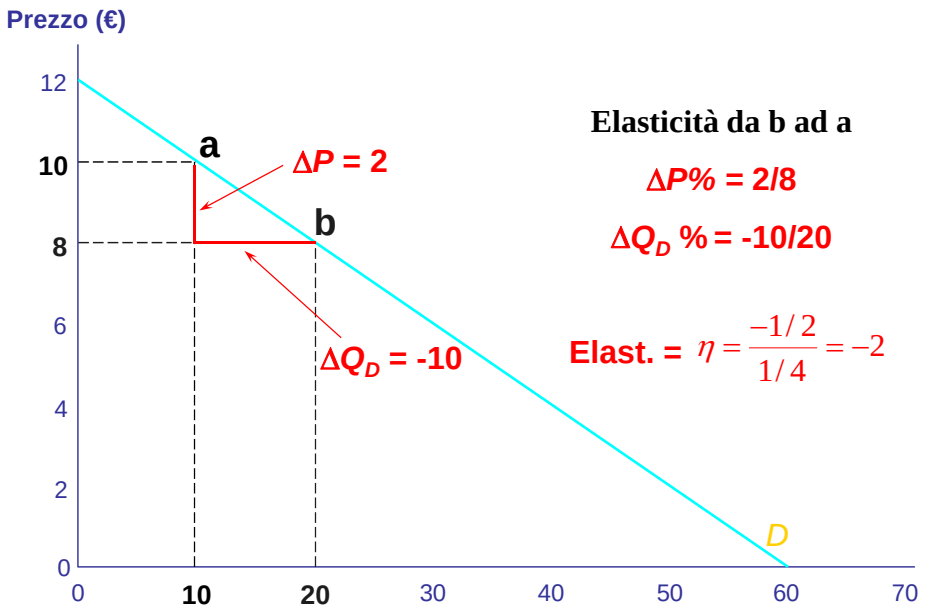
Elast. = $\eta = \frac{1}{-\frac{1}{5}} = -5$

Elasticità della domanda al prezzo



Prezzo	quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

Elasticità della domanda al prezzo



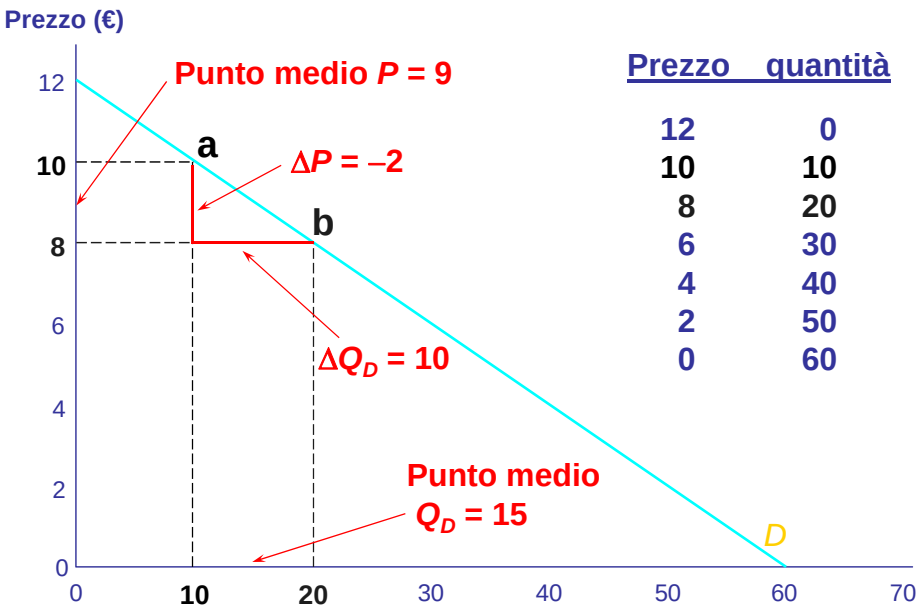
Problema

- Elasticità dal punto a al punto b = -5
- Elasticità dal punto b al punto a = -2
  - Ci serve una misura dell'elasticità invariante rispetto alla direzione prescelta
  - Uso il punto medio come riferimento

$$\Delta Q_d\,\% = \frac{Q_d^2 - Q_d^1}{Q_d^m}$$

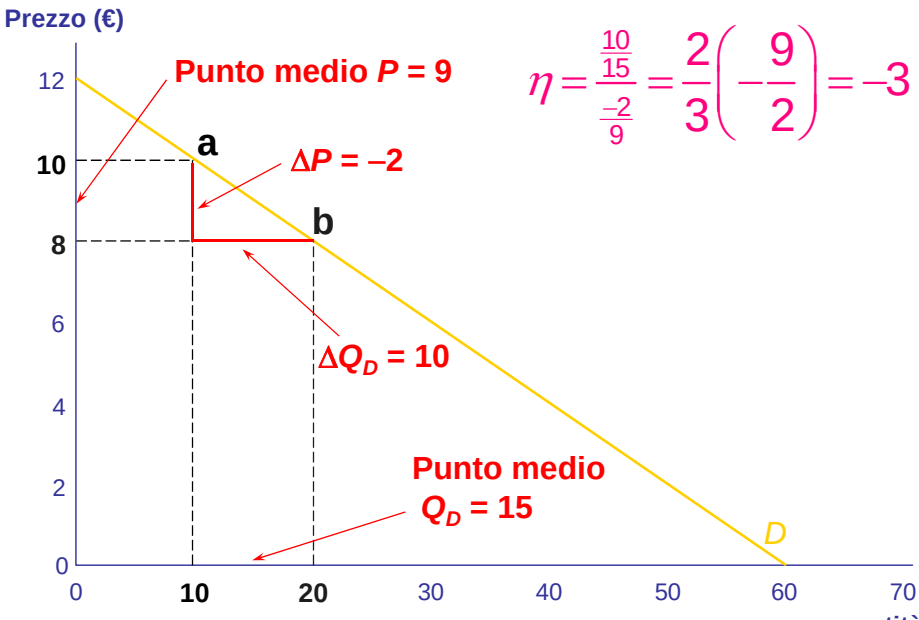
$$Q_d^m = \frac{Q_d^2 + Q_d^1}{2}$$

Elasticità della domanda al prezzo



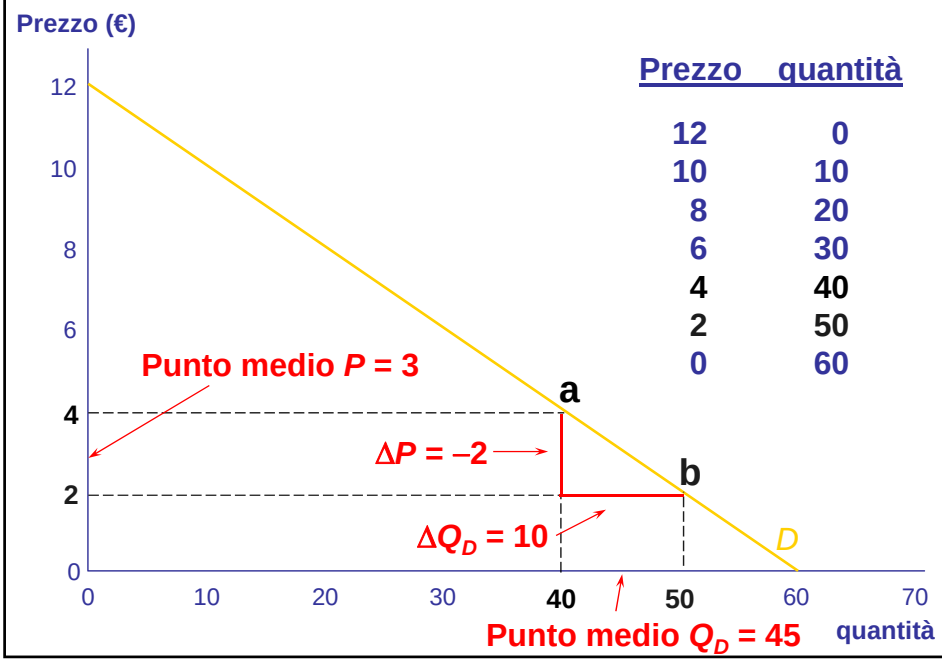
Prezzo	quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

Elasticità della domanda al prezzo



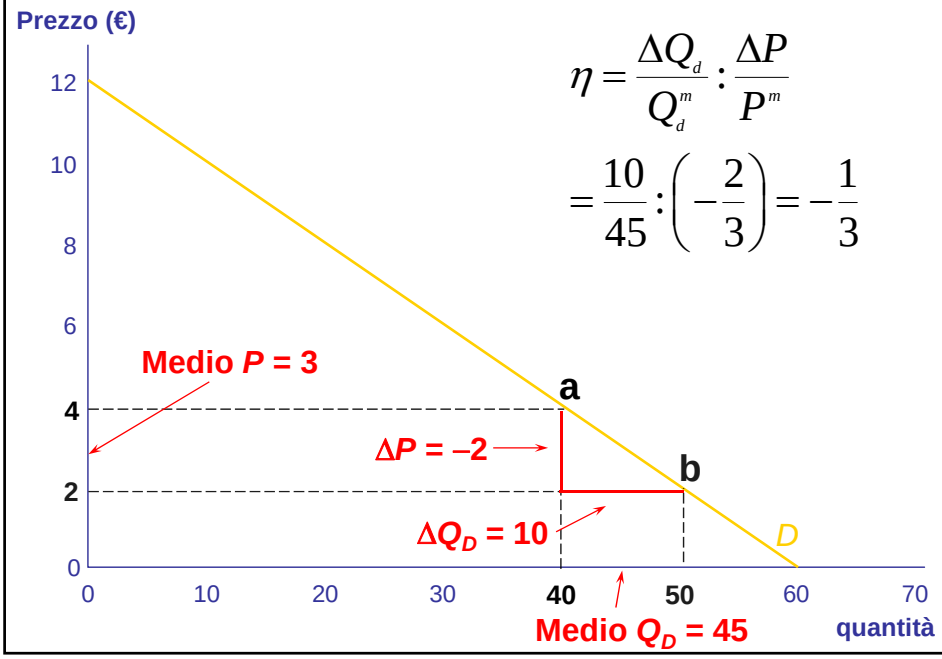
$$\eta = \frac{\frac{10}{15}}{\frac{-2}{9}} = \frac{2}{3}\left(-\frac{9}{2}\right) = -3$$

Elasticità della domanda al prezzo



Prezzo	quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

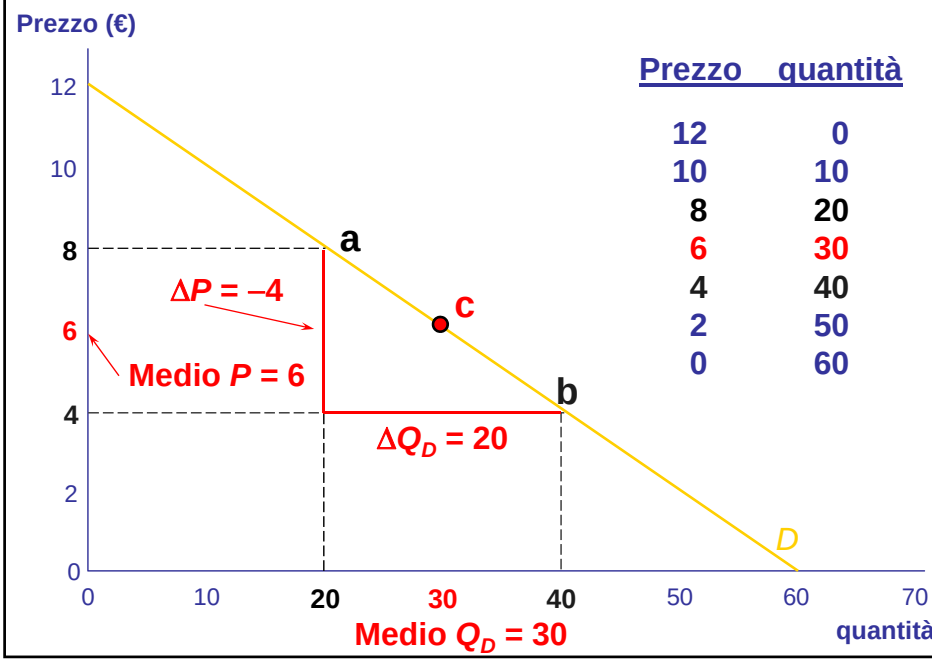
Elasticità della domanda al prezzo



$$\eta = \frac{\Delta Q_d}{Q_d^m} : \frac{\Delta P}{P^m}$$

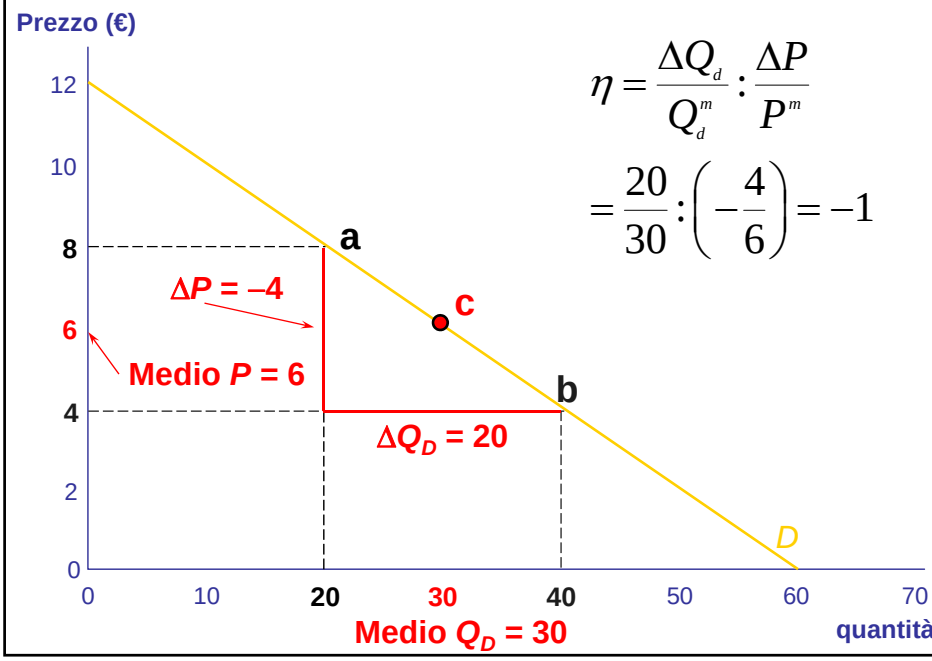
$$= \frac{10}{45} : \left(-\frac{2}{3}\right) = -\frac{1}{3}$$

Elasticità della domanda al prezzo



Prezzo	quantità
12	0
10	10
8	20
6	30
4	40
2	50
0	60

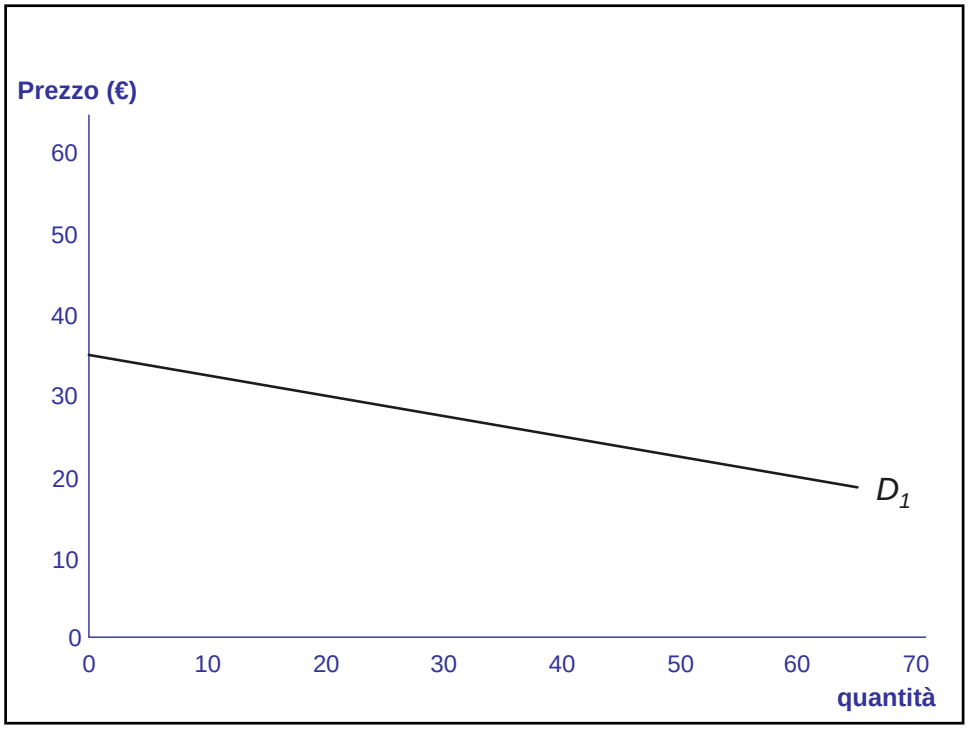
Elasticità della domanda al prezzo

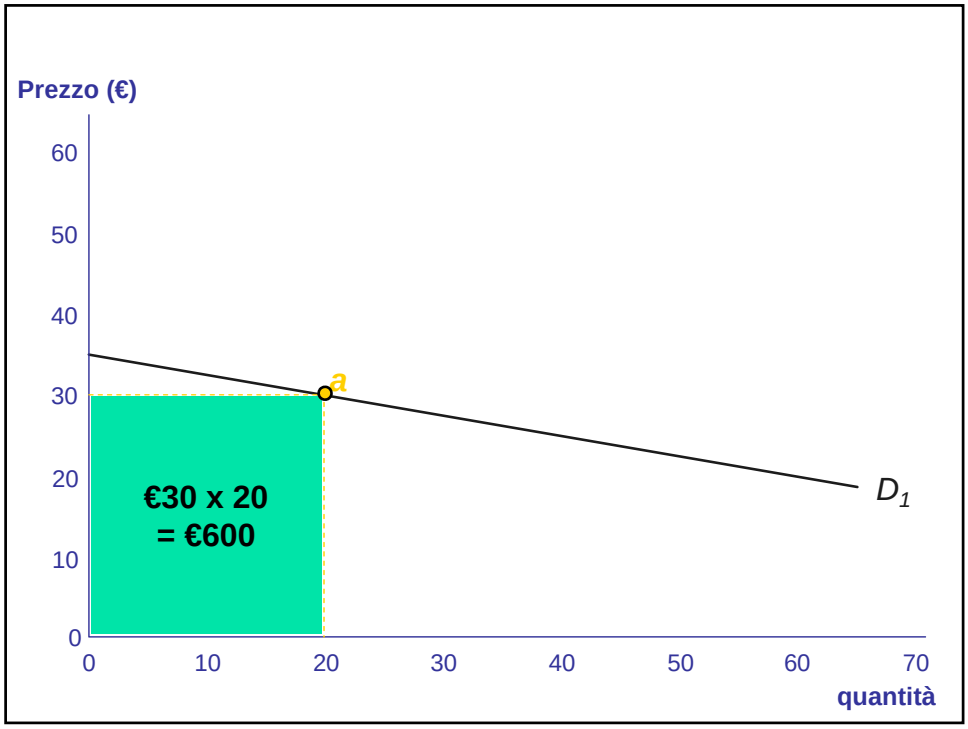


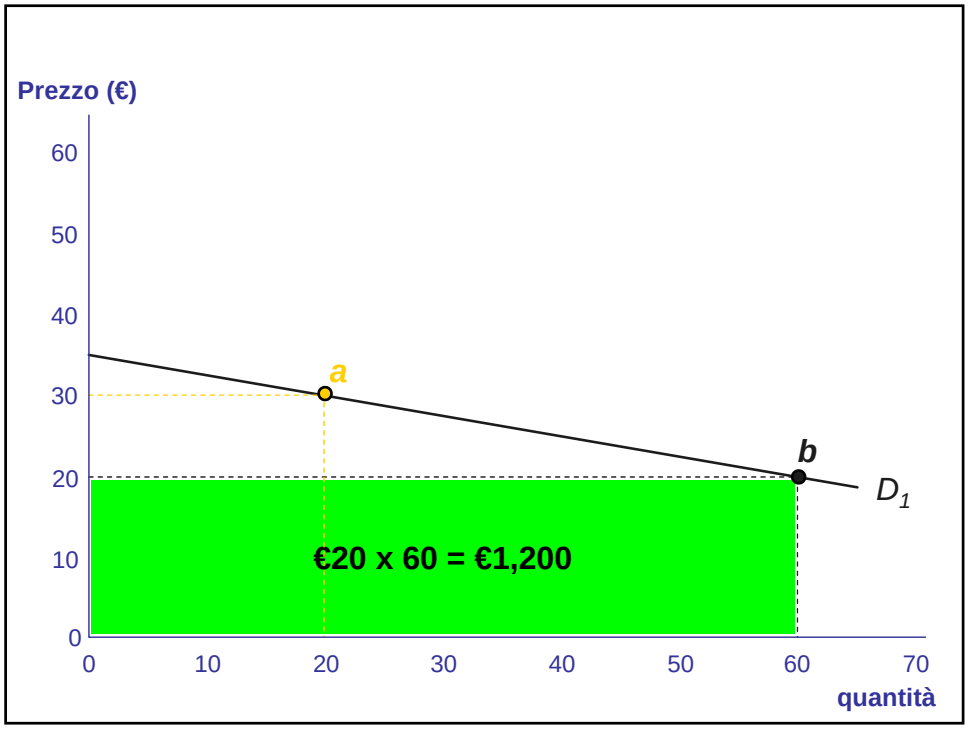
$$\eta = \frac{\Delta Q_d}{Q_d^m} : \frac{\Delta P}{P^m}$$

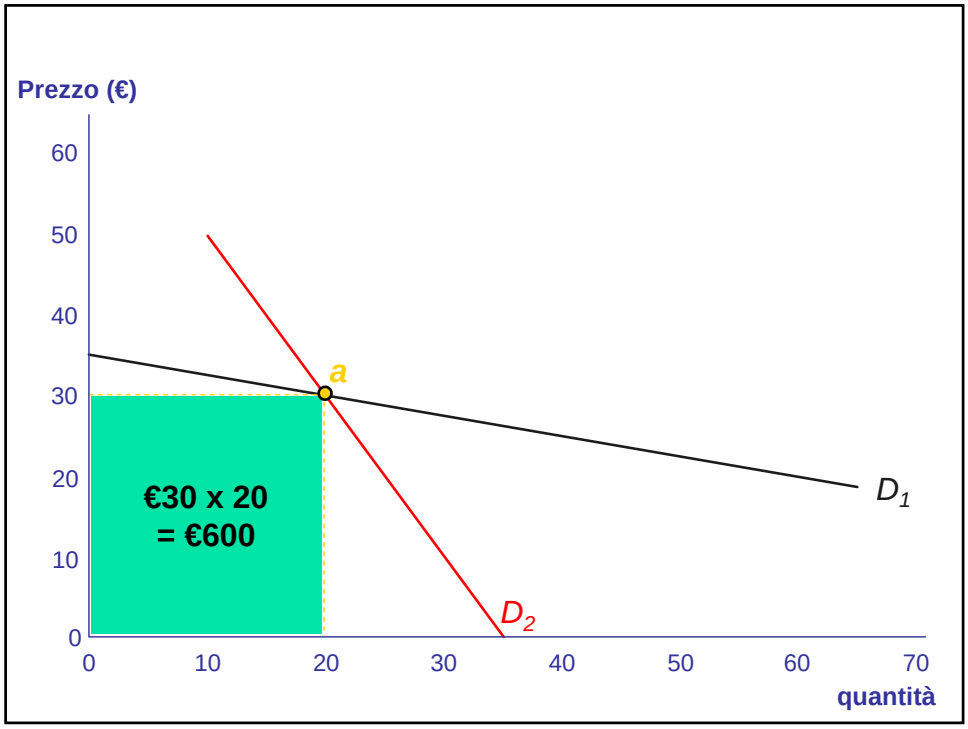
$$= \frac{20}{30} : \left(-\frac{4}{6}\right) = -1$$

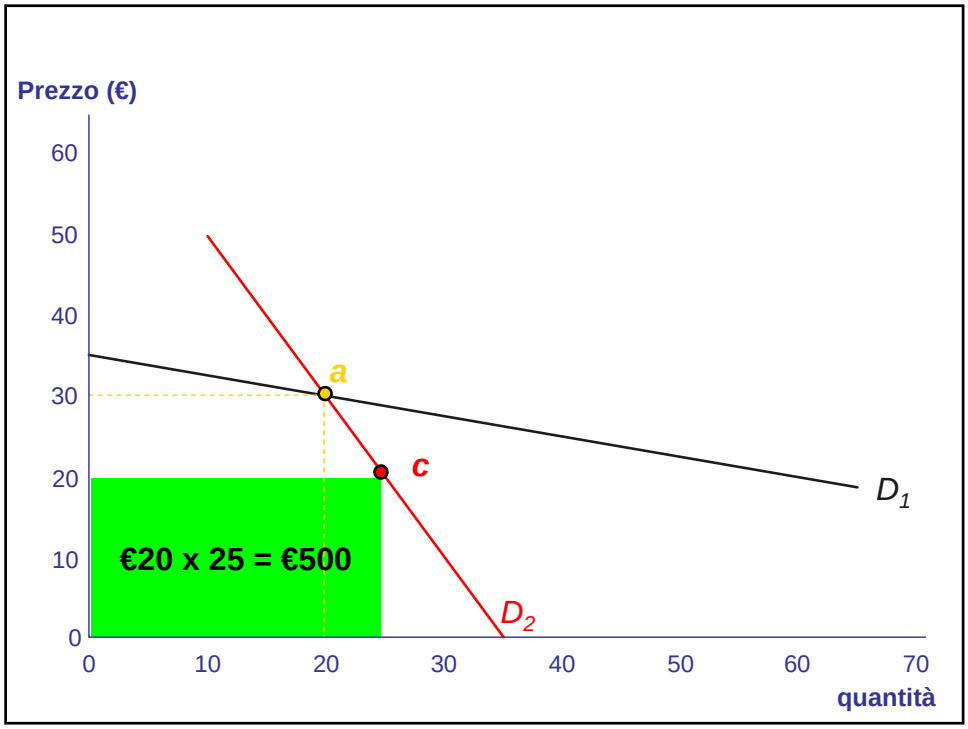
Elasticità e
Spesa del consumatore




Prezzo (€)
60
50
40
30
20
10
0
a
€30 x 20
= €600
D_1
0
10
20
30
40
50
60
70
quantità

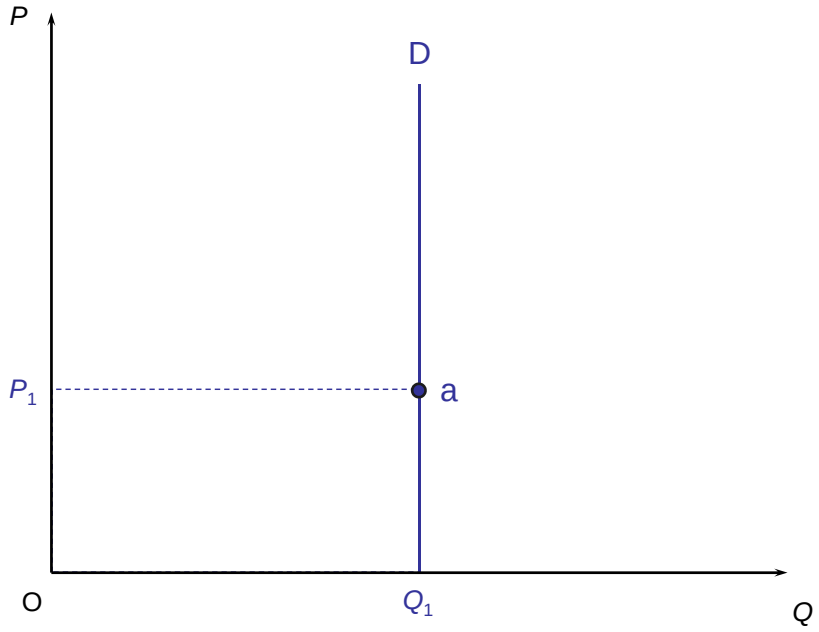

Prezzo (€)
60
50
40
30
20
10
0
a
b
D_1
€20 x 60 = €1,200
0
10
20
30
40
50
60
70
quantità


Prezzo (€)
60
50
40
30
20
10
0
a
€30 x 20
= €600
D1
D2
0
10
20
30
40
50
60
70
quantità

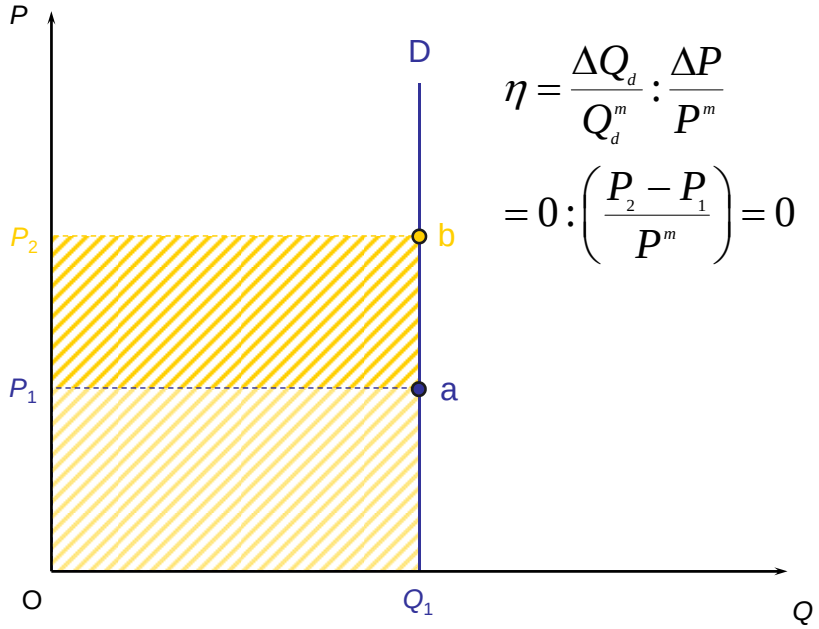

Prezzo (€)
60
50
40
30
20
10
0
a
c
€20 x 25 = €500
D1
D2
0
10
20
30
40
50
60
70
quantità

Casi particolari

Domanda completamente inelastica



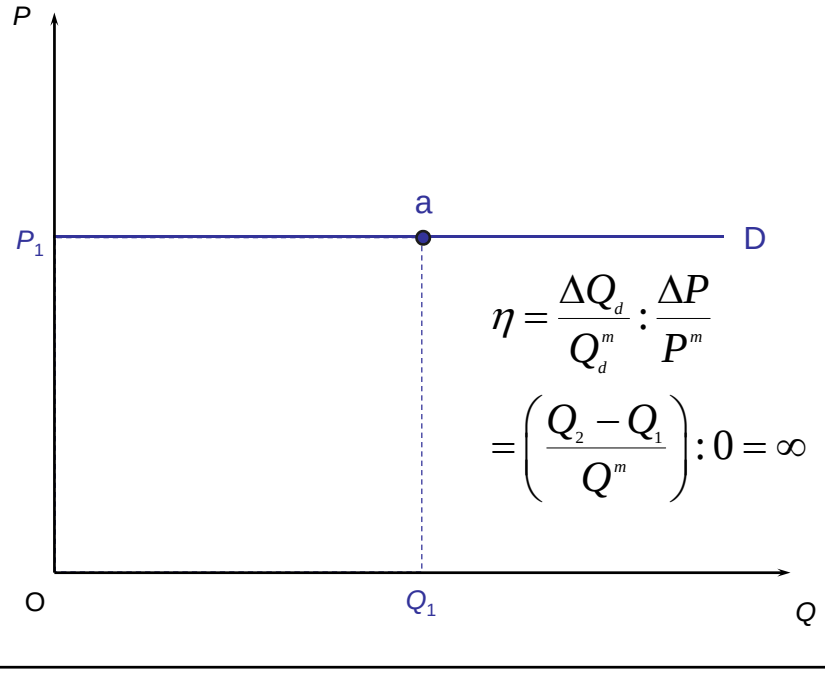
Domanda completamente inelastica



$$\eta = \frac{\Delta Q_d}{Q_d^m} : \frac{\Delta P}{P^m}$$

$$= 0 : \left(\frac{P_2 - P_1}{P^m} \right) = 0$$

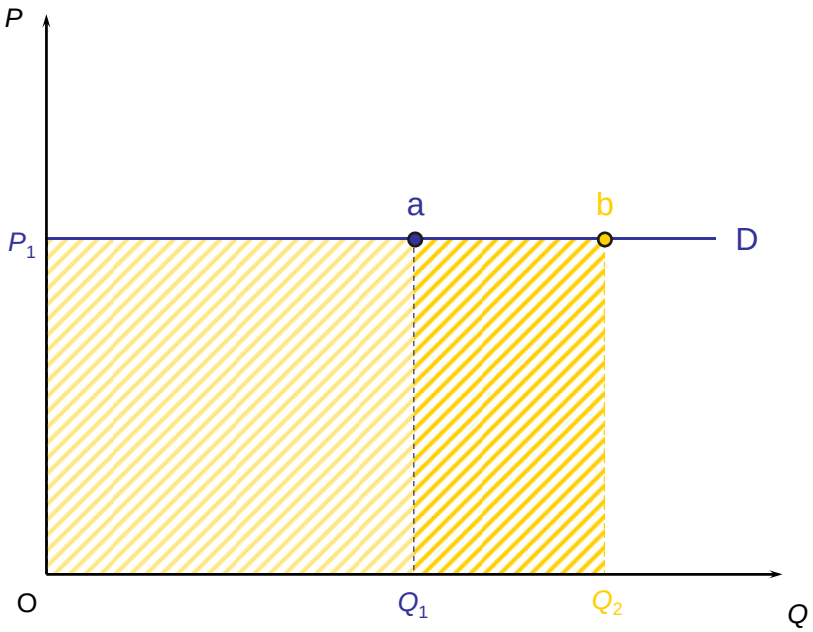
Domanda infinitamente elastica



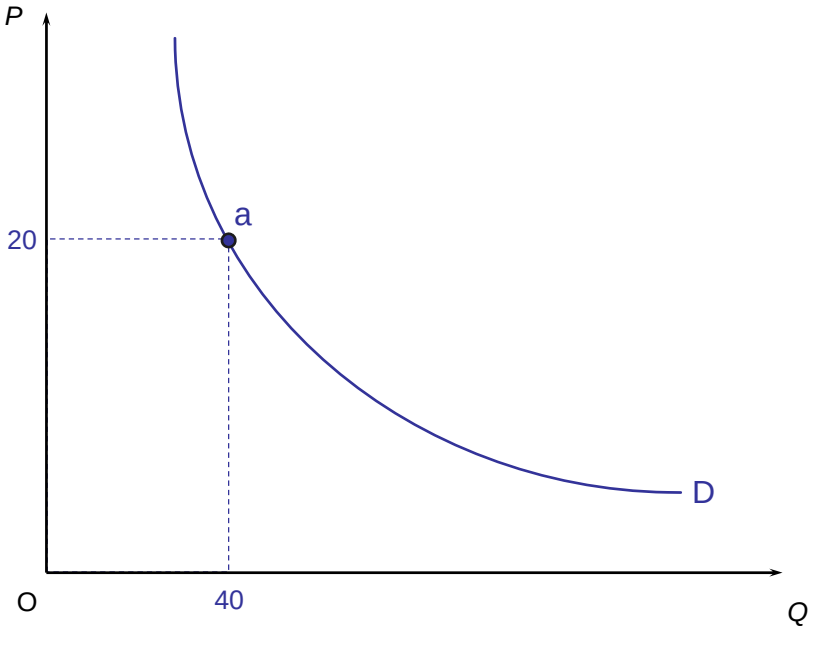
$$\eta = \frac{\Delta Q_d}{Q_d^m} : \frac{\Delta P}{P^m}$$

$$= \left(\frac{Q_2 - Q_1}{Q^m} \right) : 0 = \infty$$

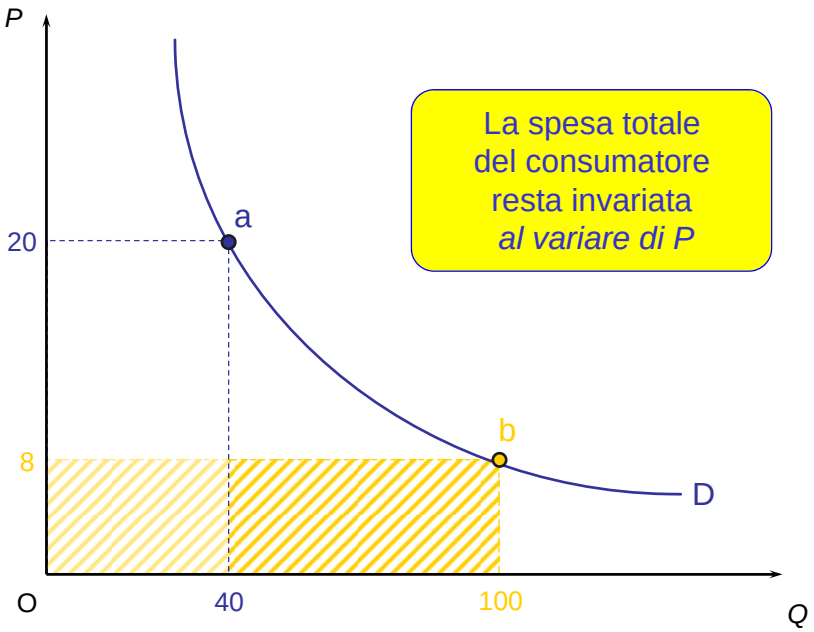
Domanda infinitamente elastica



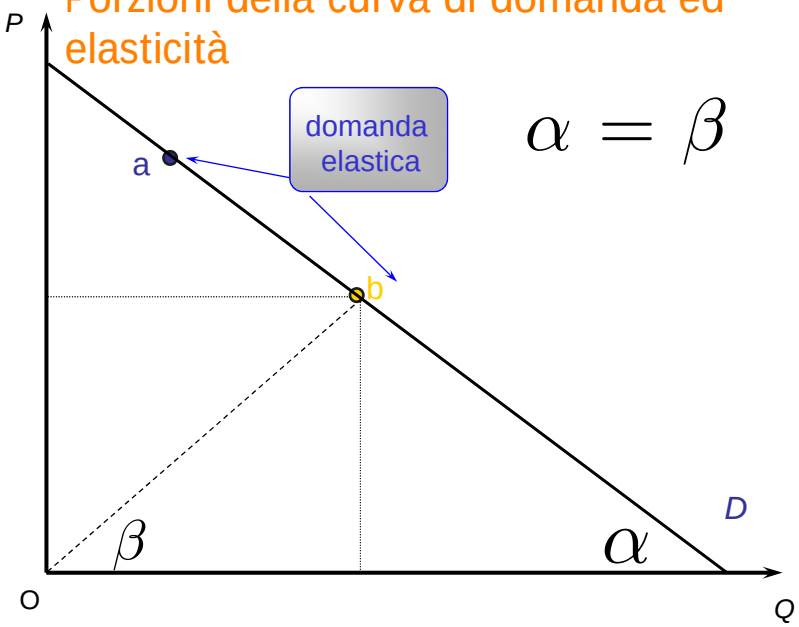
Domanda ad elasticità unitaria



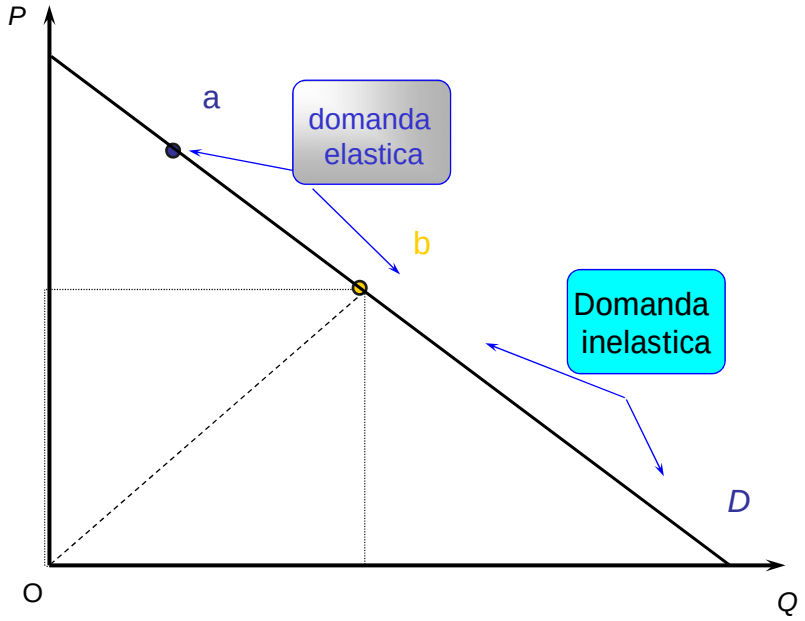
Domanda ad elasticità unitaria



Porzioni della curva di domanda ed elasticità



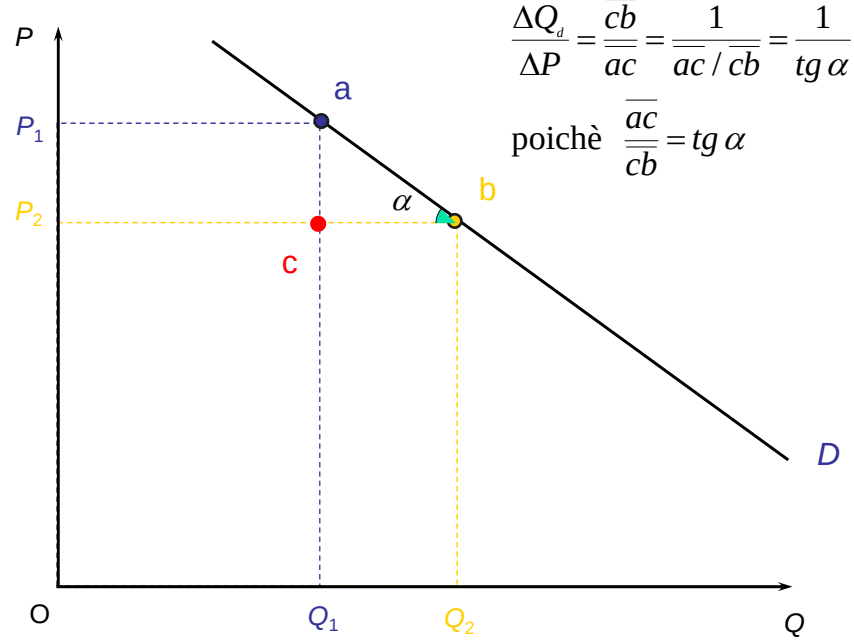
Porzioni della curva di domanda ed elasticità



Misurazione dell'elasticità
Col metodo dei punti

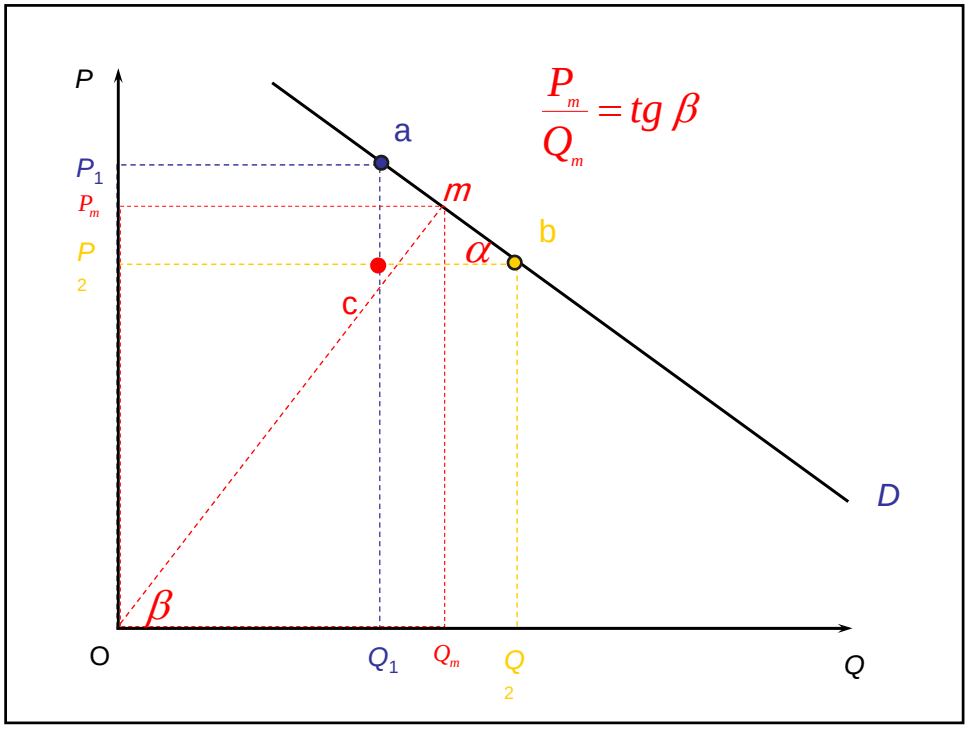
$$\eta = \frac{\Delta Q_d}{Q_m} : \frac{\Delta P}{P_m}$$

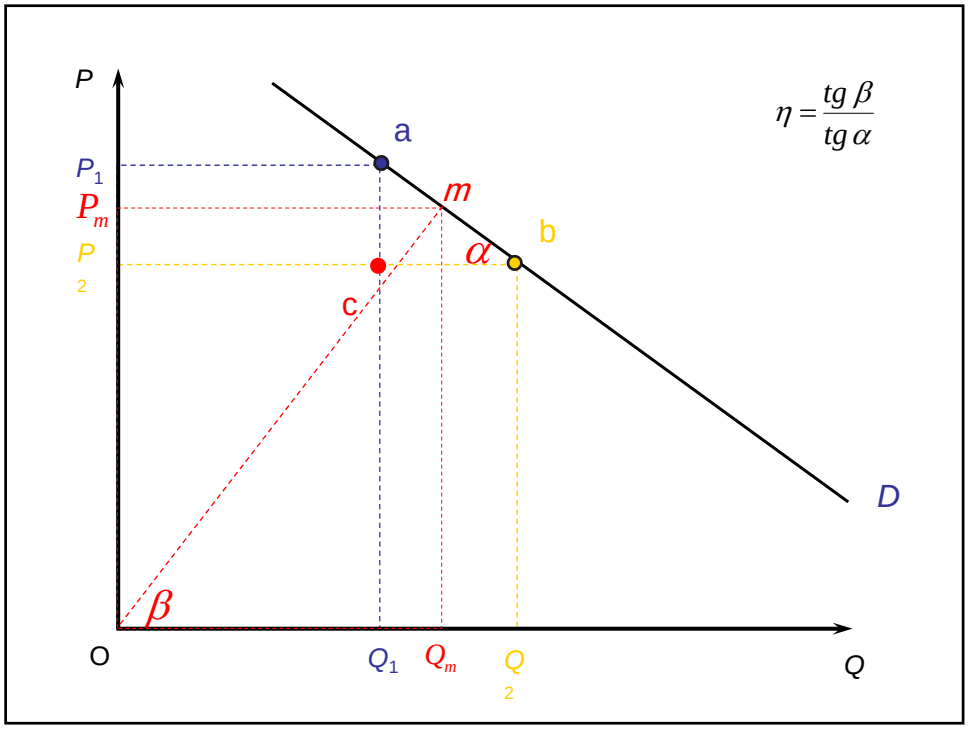
$$= \frac{\Delta Q_d}{\Delta P} \cdot \frac{P_m}{Q_m}$$



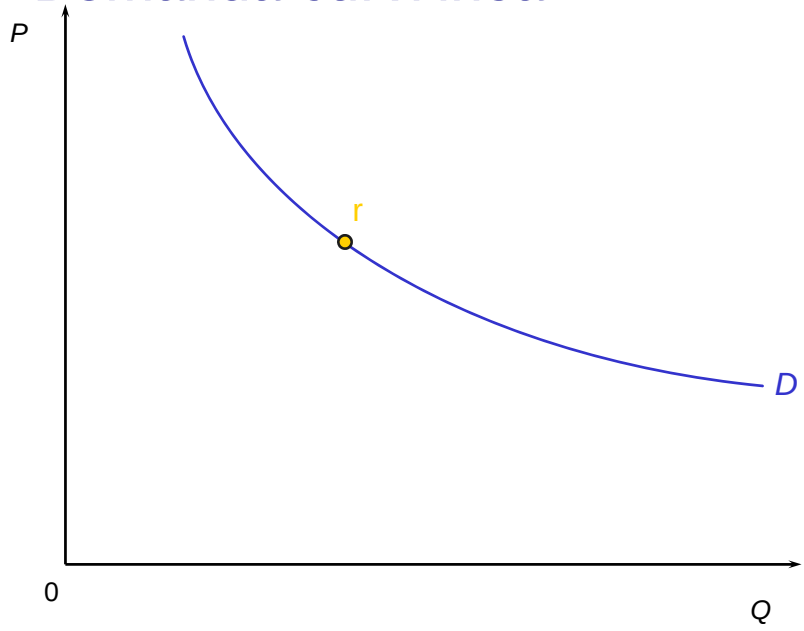
$$\frac{\Delta Q_d}{\Delta P} = \frac{\overline{cb}}{\overline{ac}} = \frac{1}{\overline{ac}/\overline{cb}} = \frac{1}{tg\,\alpha}$$

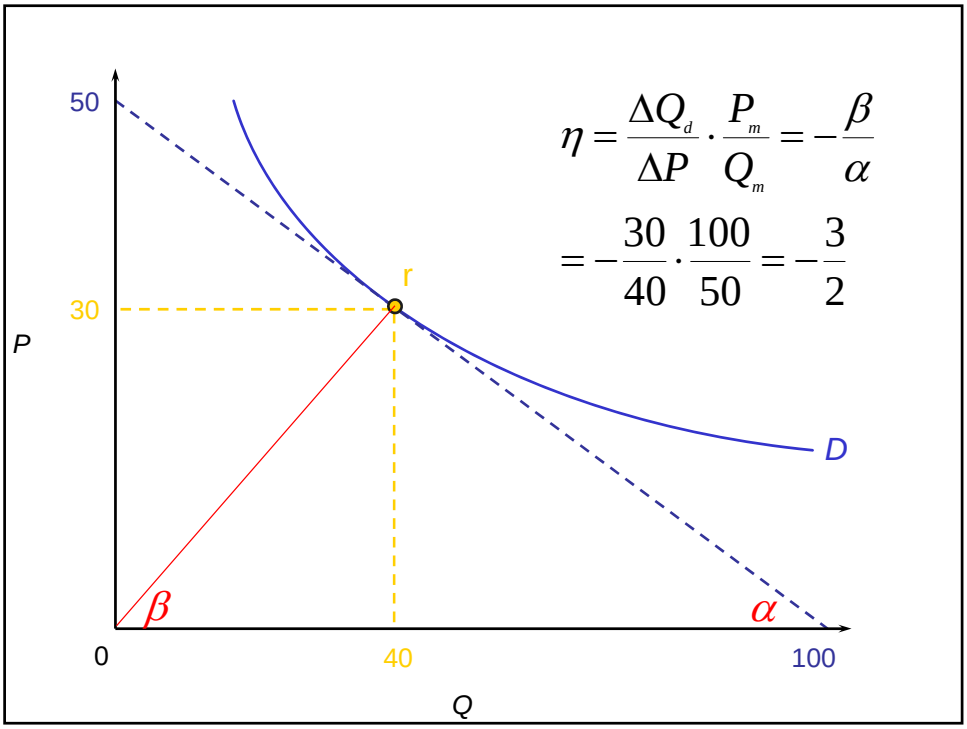
poichè $\frac{\overline{ac}}{\overline{cb}} = tg\,\alpha$


P
$\frac{P_m}{Q_m} = tg\,\beta$
a
P_1
P_m
P_2
m
b
α
c
D
β
O
Q_1
Q_m
Q_2
Q


P
$\eta = \frac{tg\,\beta}{tg\,\alpha}$
a
P_1
P_m
P_2
m
b
α
c
D
β
O
Q_1
Q_m
Q_2
Q

Domanda curvilinea

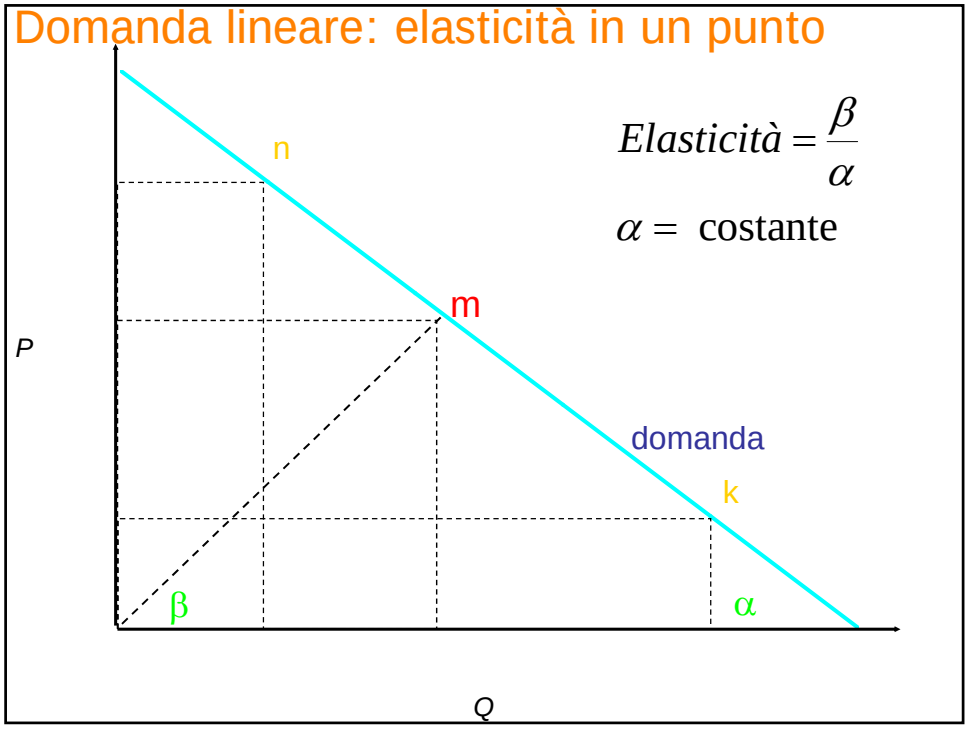




$$\eta = \frac{\Delta Q_d}{\Delta P} \cdot \frac{P_m}{Q_m} = -\frac{\beta}{\alpha}$$

$$= -\frac{30}{40} \cdot \frac{100}{50} = -\frac{3}{2}$$

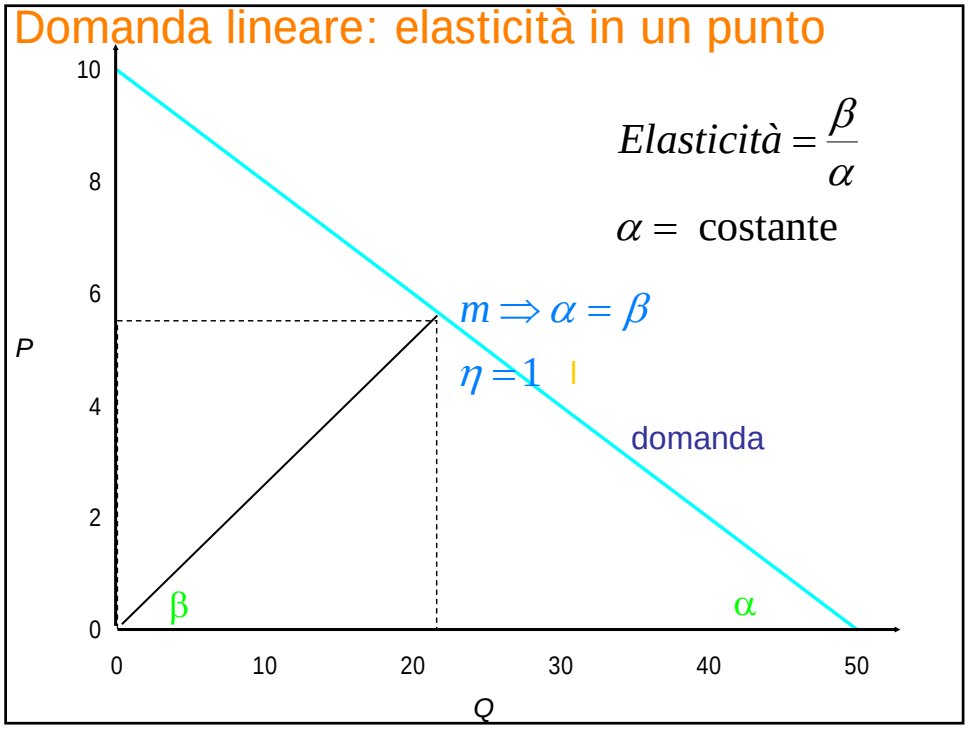
Domanda lineare: elasticità in un punto



$$Elasticità = \frac{\beta}{\alpha}$$

$$\alpha = \text{ costante}$$

Domanda lineare: elasticità in un punto



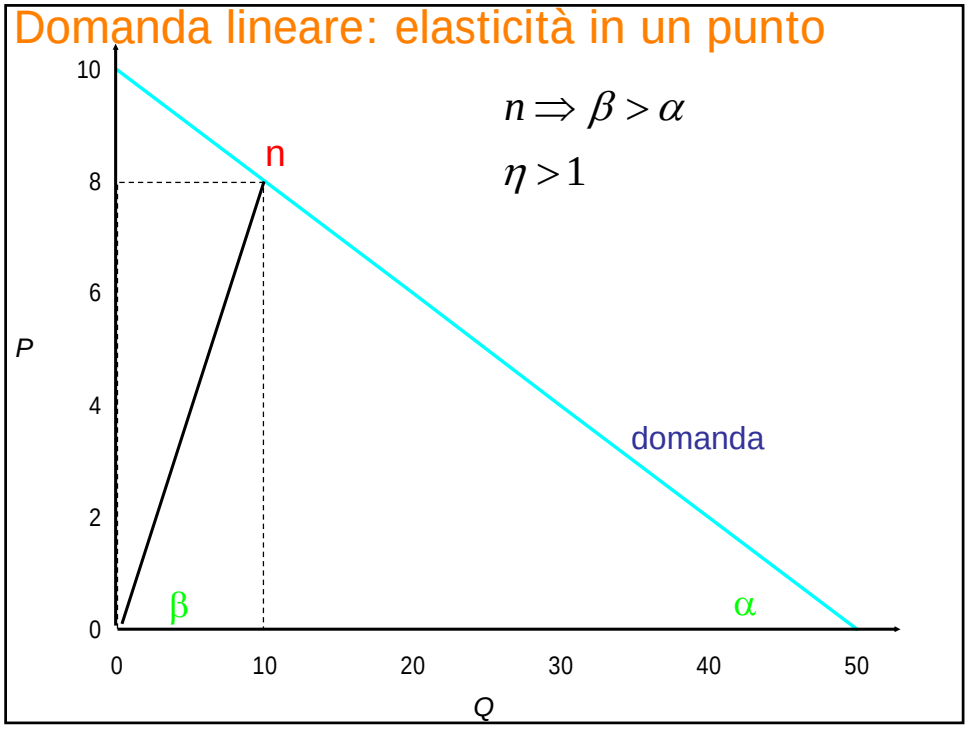
$$Elasticità = \frac{\beta}{\alpha}$$

$$\alpha = \text{ costante}$$

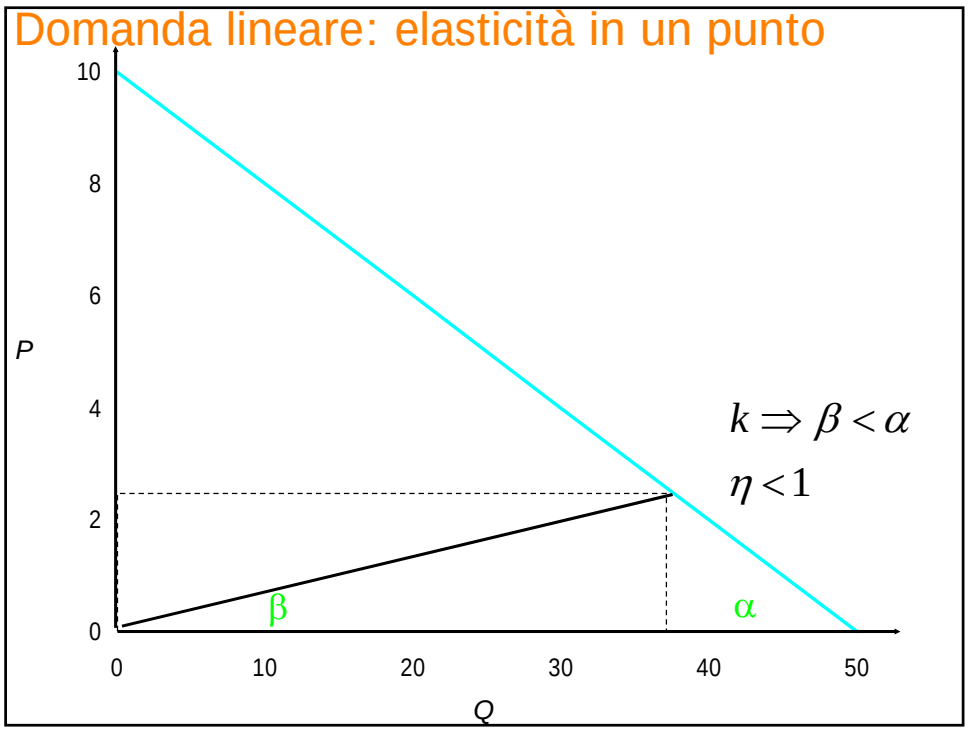
$$m \Rightarrow \alpha = \beta$$

$$\eta = 1$$

Domanda lineare: elasticità in un punto

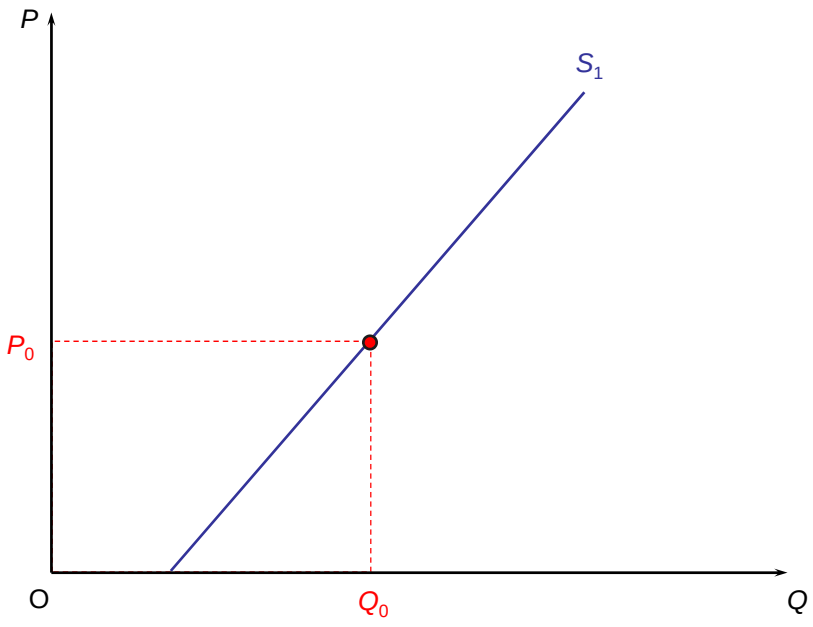


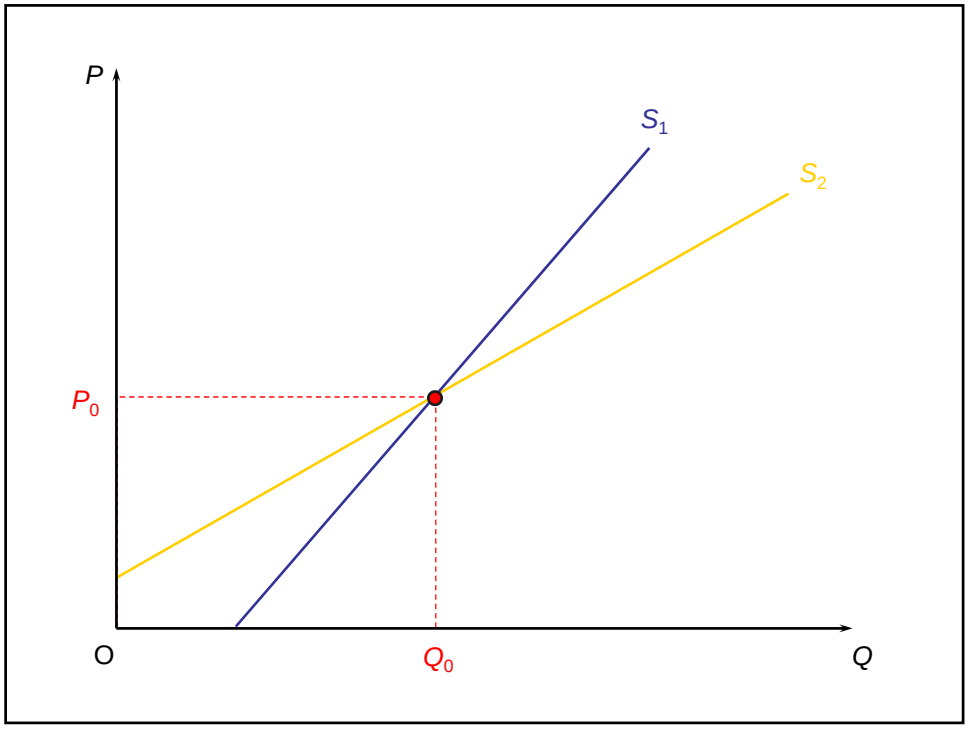
Domanda lineare: elasticità in un punto

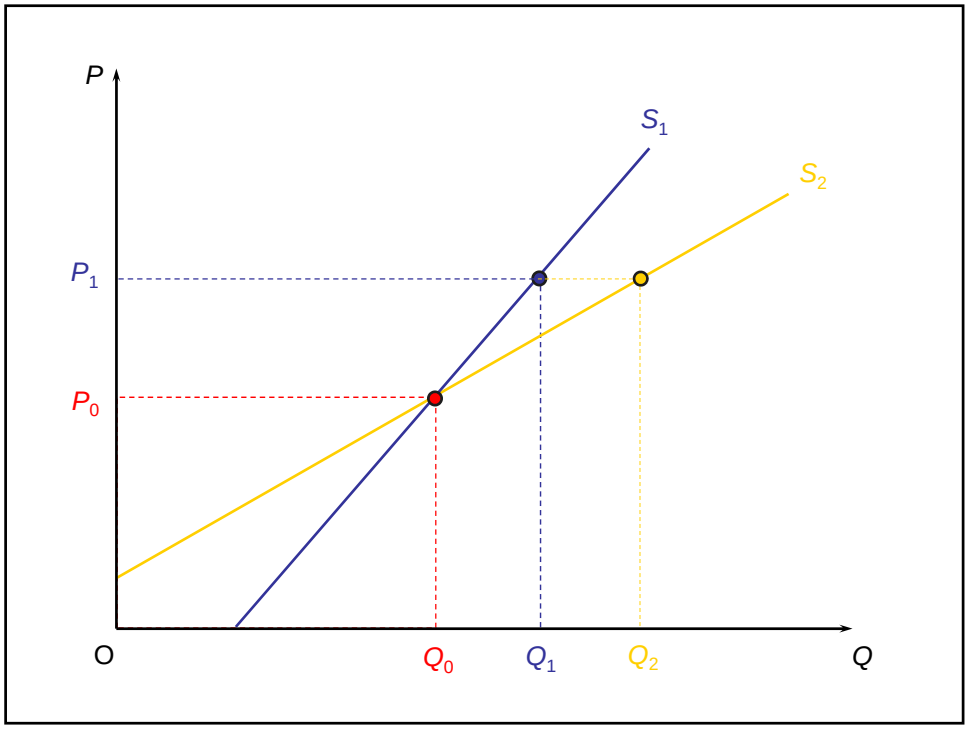


Elasticità dell'offerta al prezzo

$$\frac{\Delta Q_o}{Q_m} : \frac{\Delta P}{P_m}$$




P
S1
S2
P0
O
Q0
Q


P
S1
S2
P1
P0
O
Q0
Q1
Q2
Q

Elasticità dell'offerta al prezzo

$$\theta(S_1) = \frac{Q_1 - Q_0}{Q_m} : \frac{P_1 - P_0}{P_m}$$

Elasticità dell'offerta al prezzo

$$\theta(S_1) = \frac{Q_1 - Q_0}{\frac{Q_1 + Q_0}{2}} : \frac{P_1 - P_0}{\frac{P_1 + P_0}{2}}$$

$$\theta(S_2) = \frac{Q_2 - Q_0}{\frac{Q_2 + Q_0}{2}} : \frac{P_1 - P_0}{\frac{P_1 + P_0}{2}}$$