MODULE 6

- How Government can intervene in the market ?
  - Tax and subsidies
  - Setting max/min prices
  - Setting max/min Quantities

Tax

- The Government can impose taxes on consumers or in the firms
- Let's look at the supply
- Remembering the lecture about supply we know that the optimal condition is

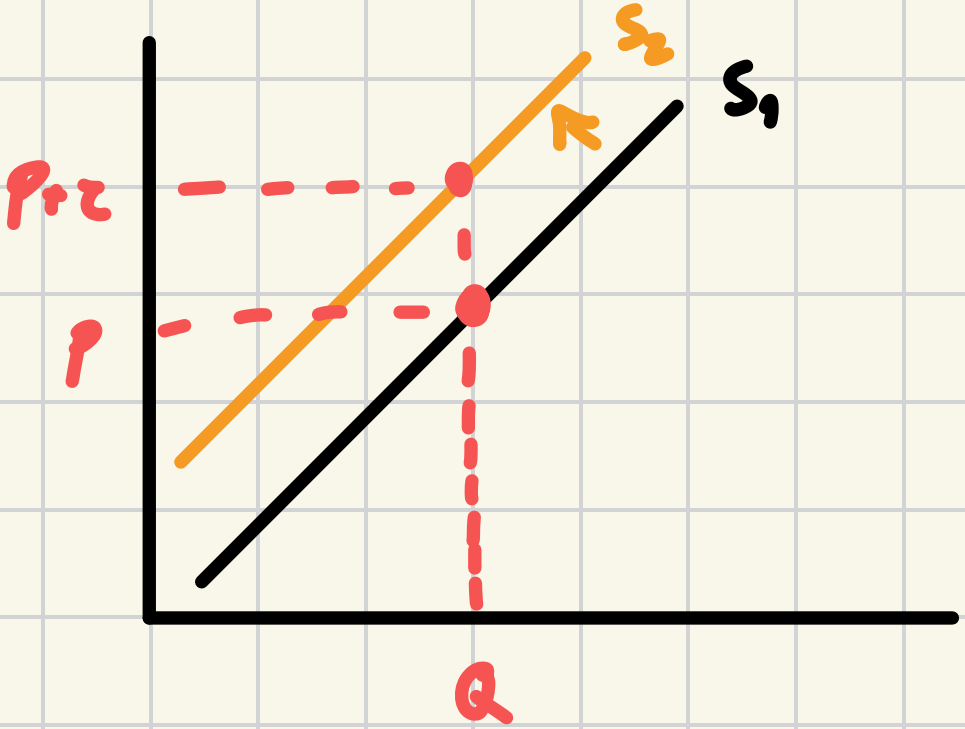
$$P = CMg$$

- With taxes, every quantity the firm sell needs to pay a tax τ

- Then we have

$$P = CMg + \epsilon$$

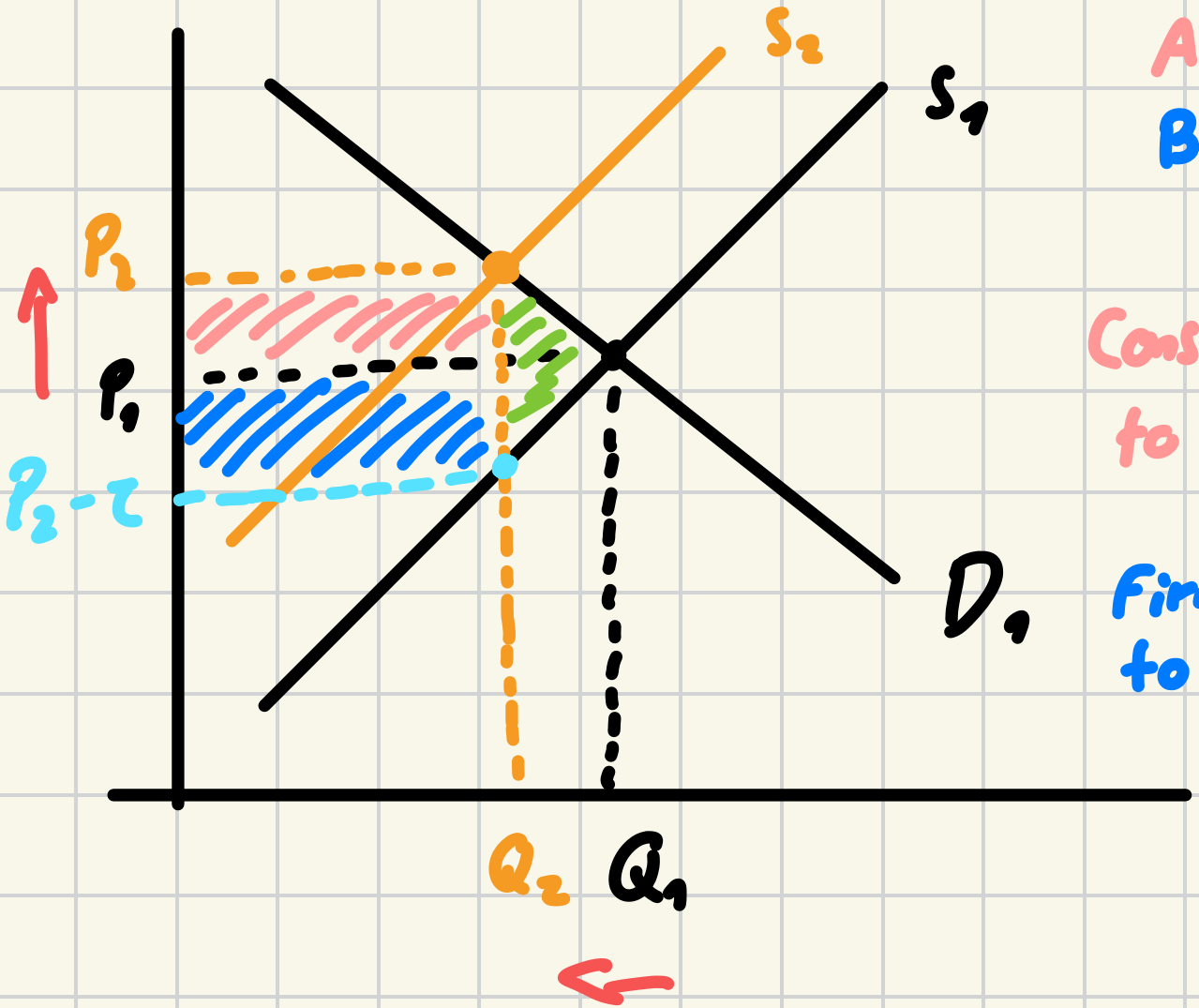
- Graphically we have



For every Quantity Q, I need to sell for $P+\epsilon$

- In the EQUILIBRIUM

C=Δ
DWL

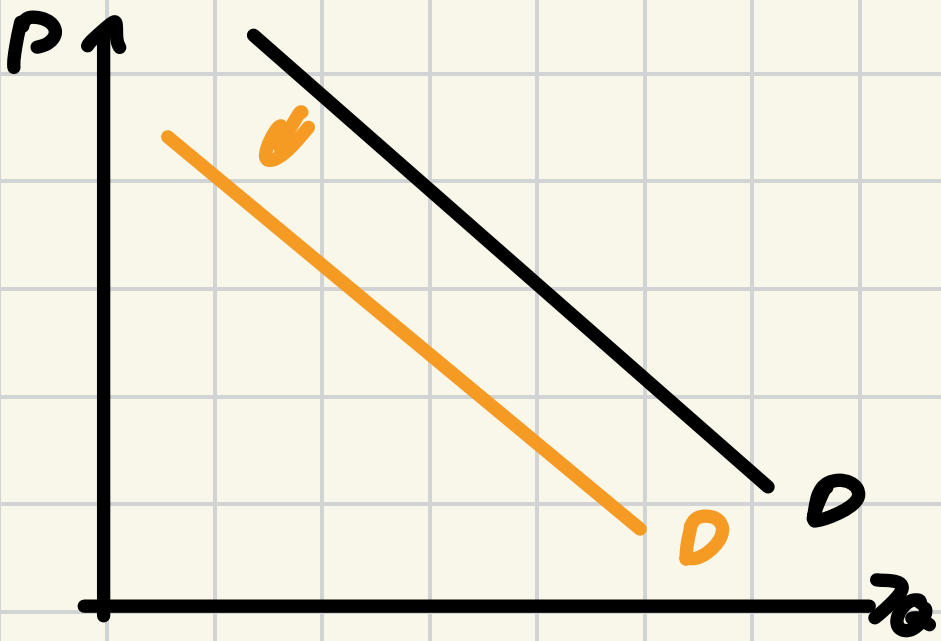


A = ▨
B = ▨

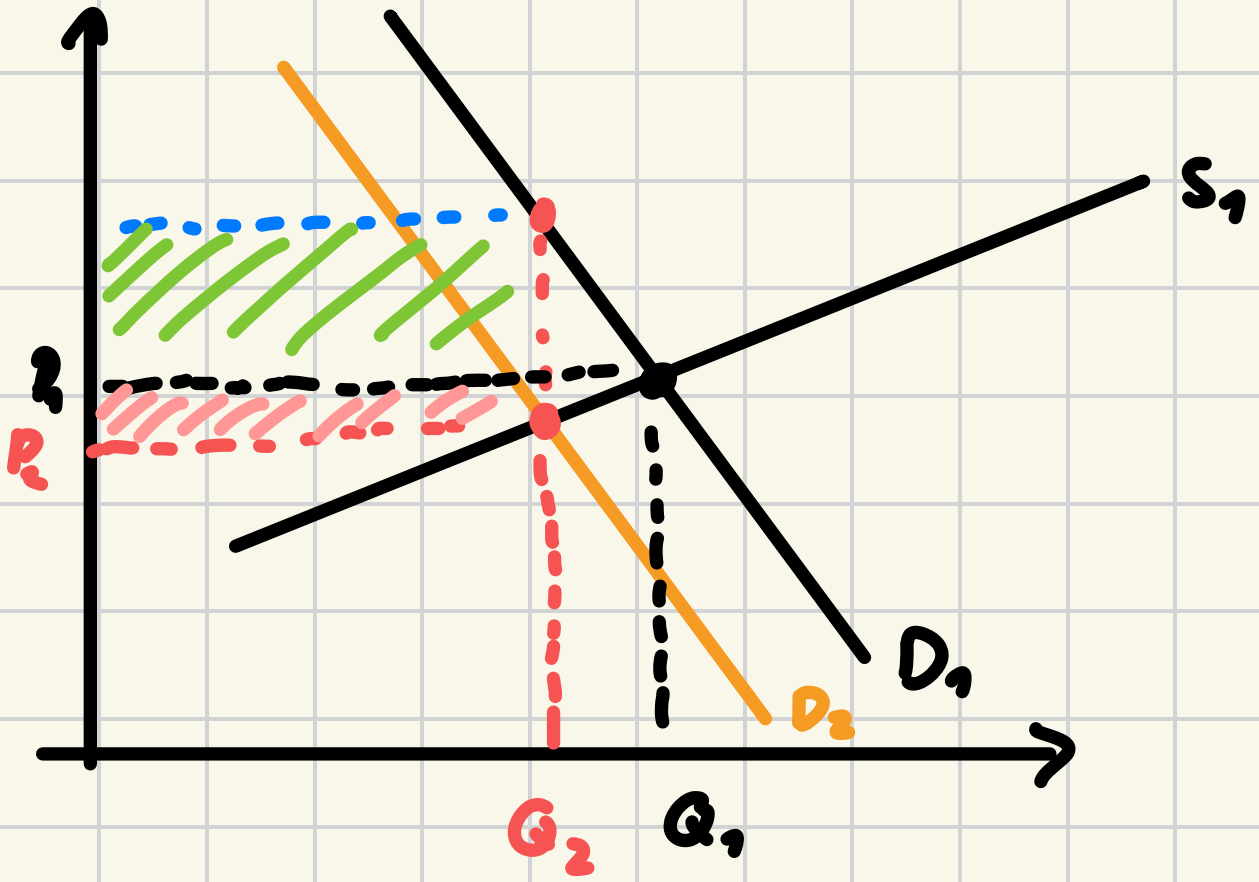
Cons. pay A to gov

Firms pay B to gov

- **Relationship with Elasticity**
  - Suppose the gov decides to tax the ice cream consumers
  - There is a decrease on the marginal benefit of buying ice cream



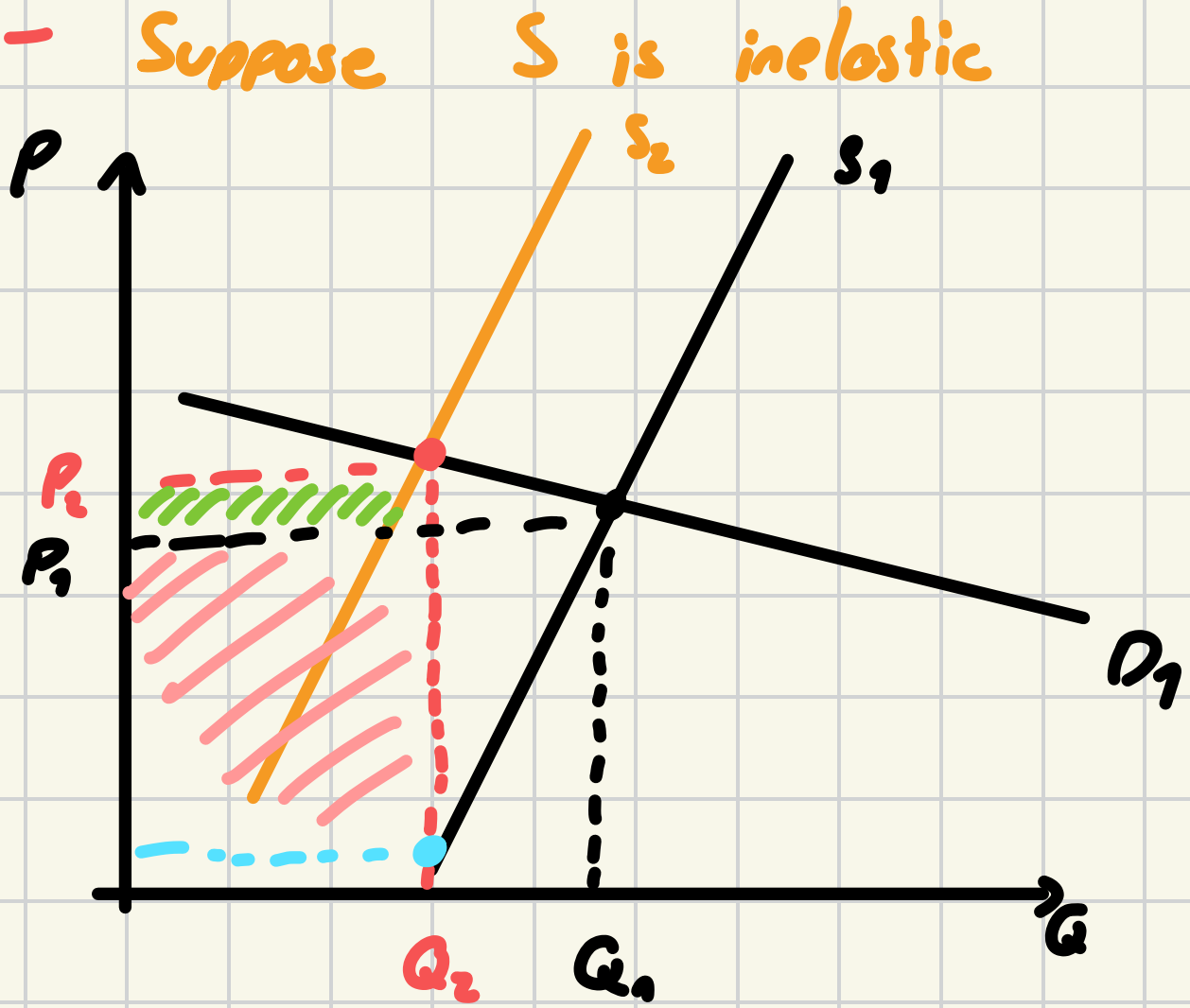
- Suppose Demand Inelastic



Firms Pay

Cons Pay

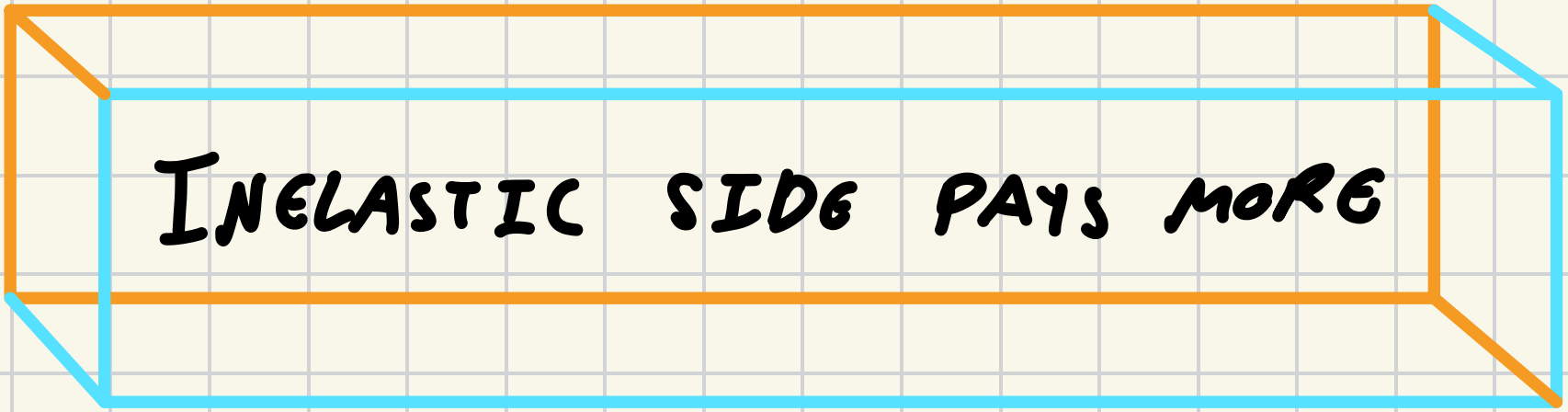
- Suppose S is inelastic



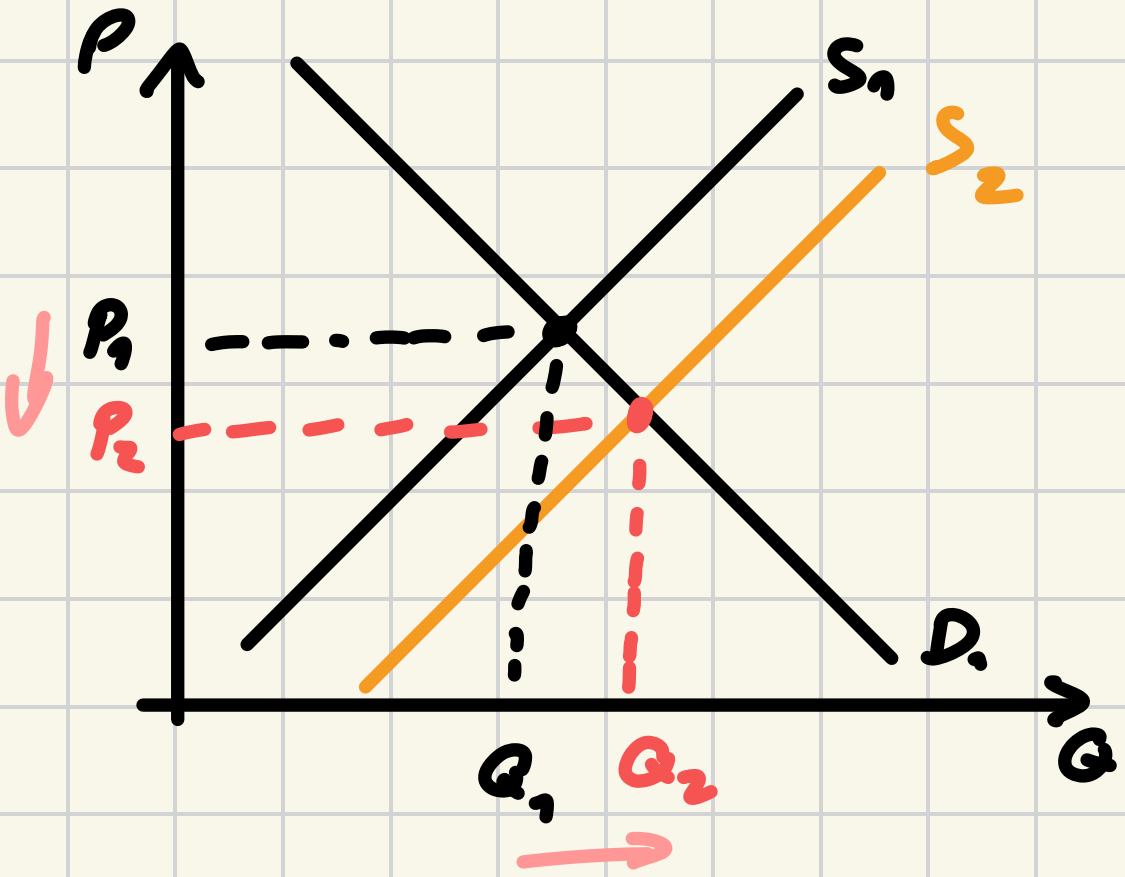
Firms pay

Cons. pay

- Conclusion.

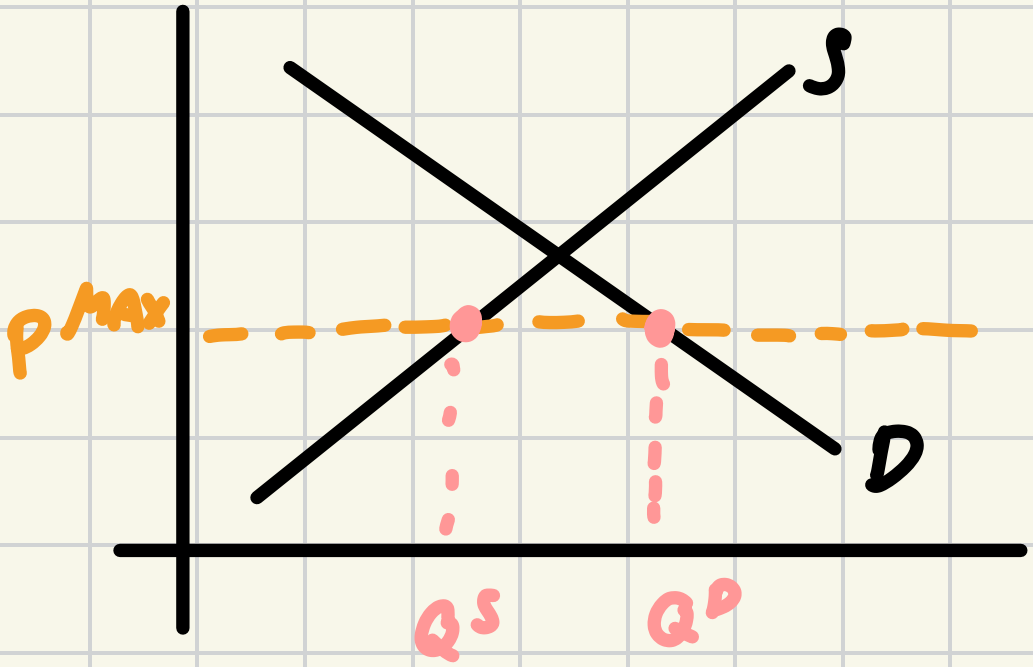


- Subsidy over firms
  - Lower Cost to produce



Gov has a cost of Implementing

- Price Ceiling

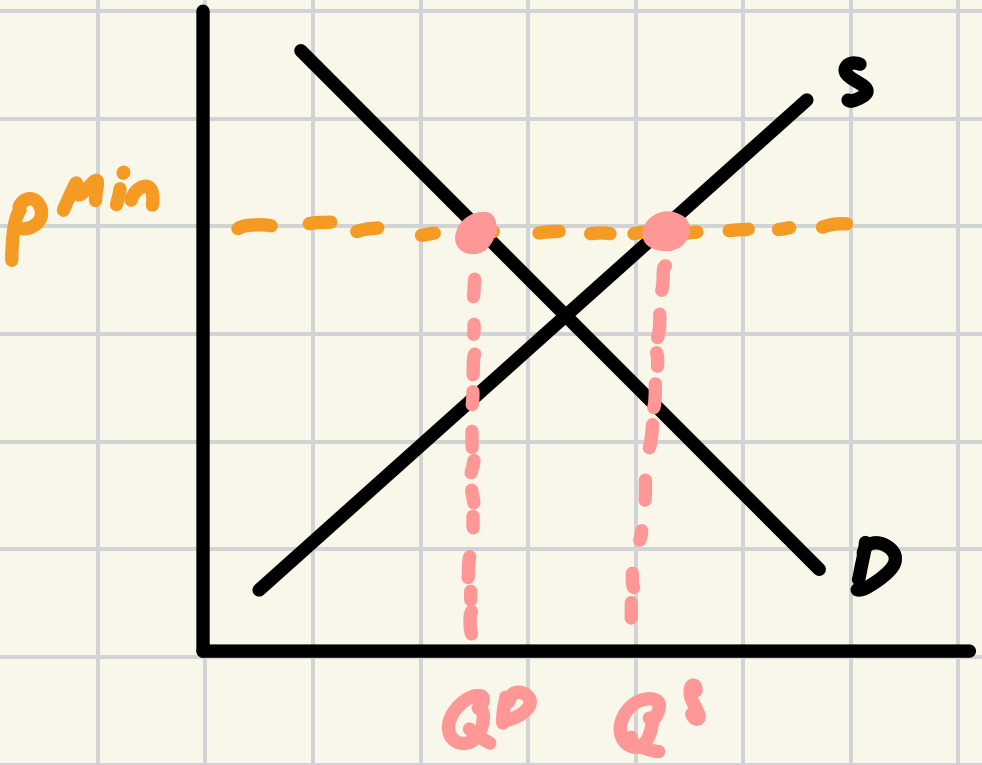


$Q^D > Q^S$

Shortage

- Rent

- Price Floor

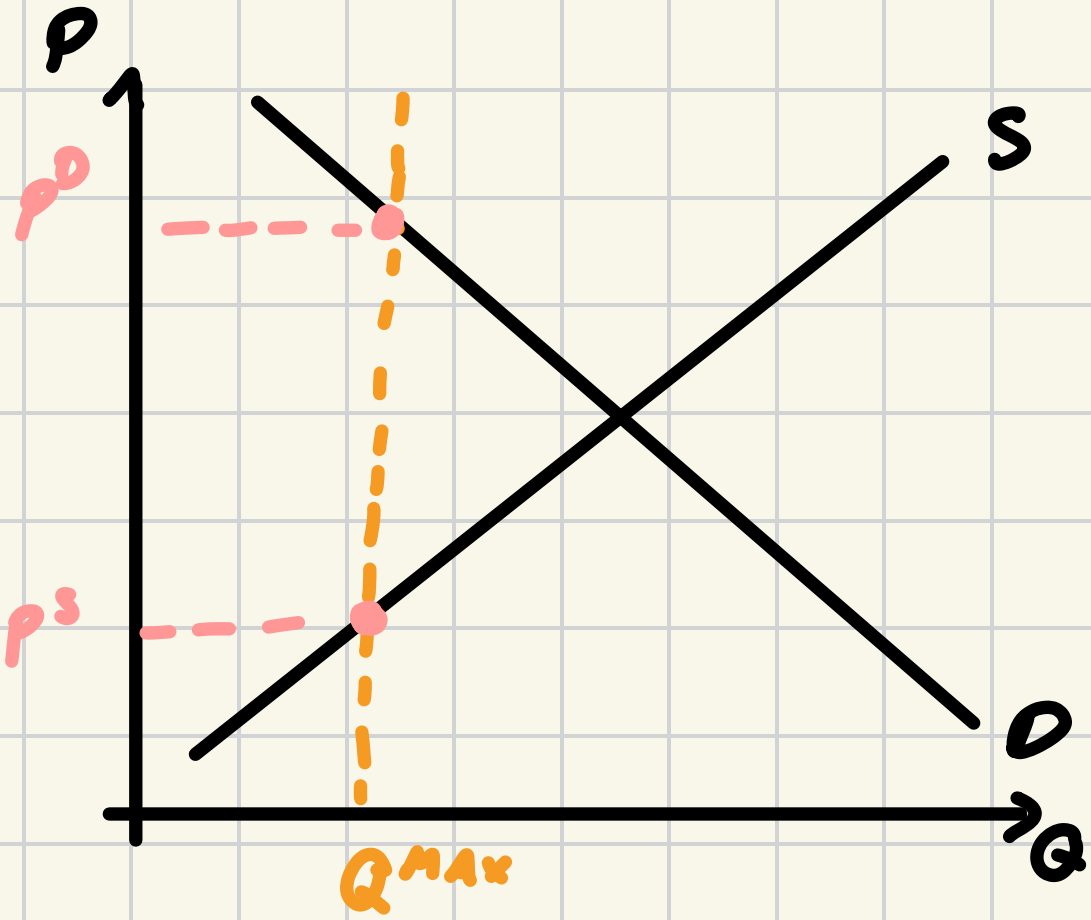


$Q^S > Q^D$

Surpluss

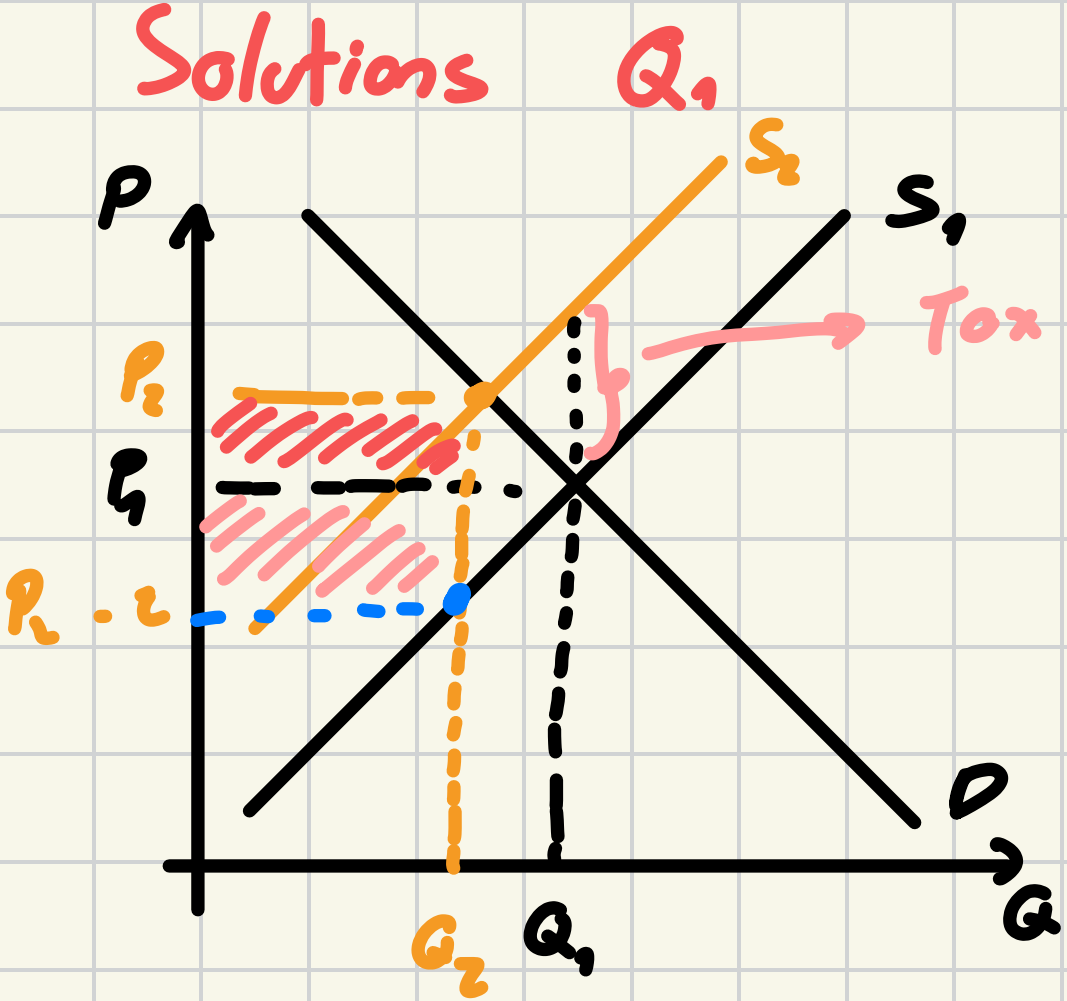
- Minimum wage

- QUOTAS



- Imports

Solutions

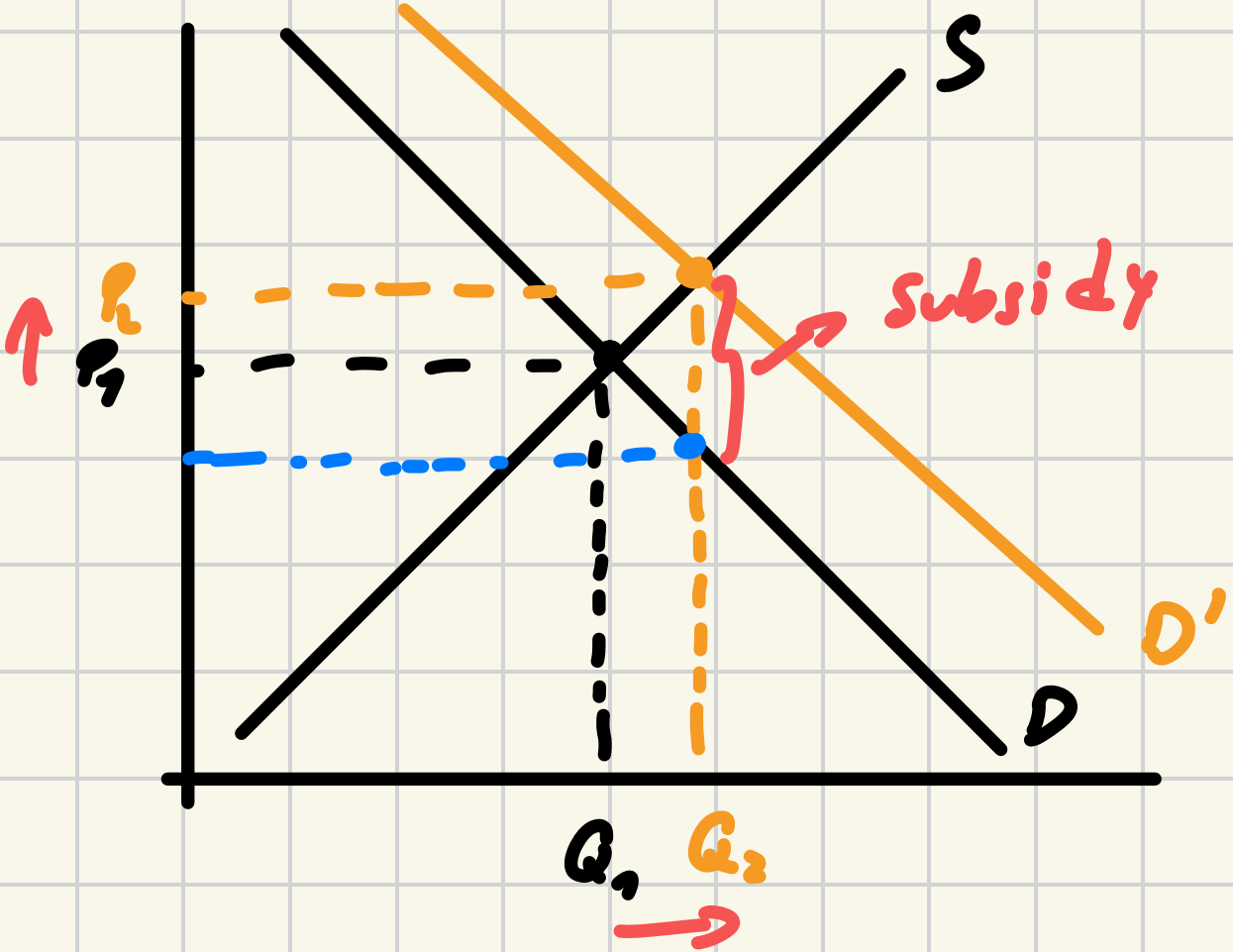


/// Cons pay

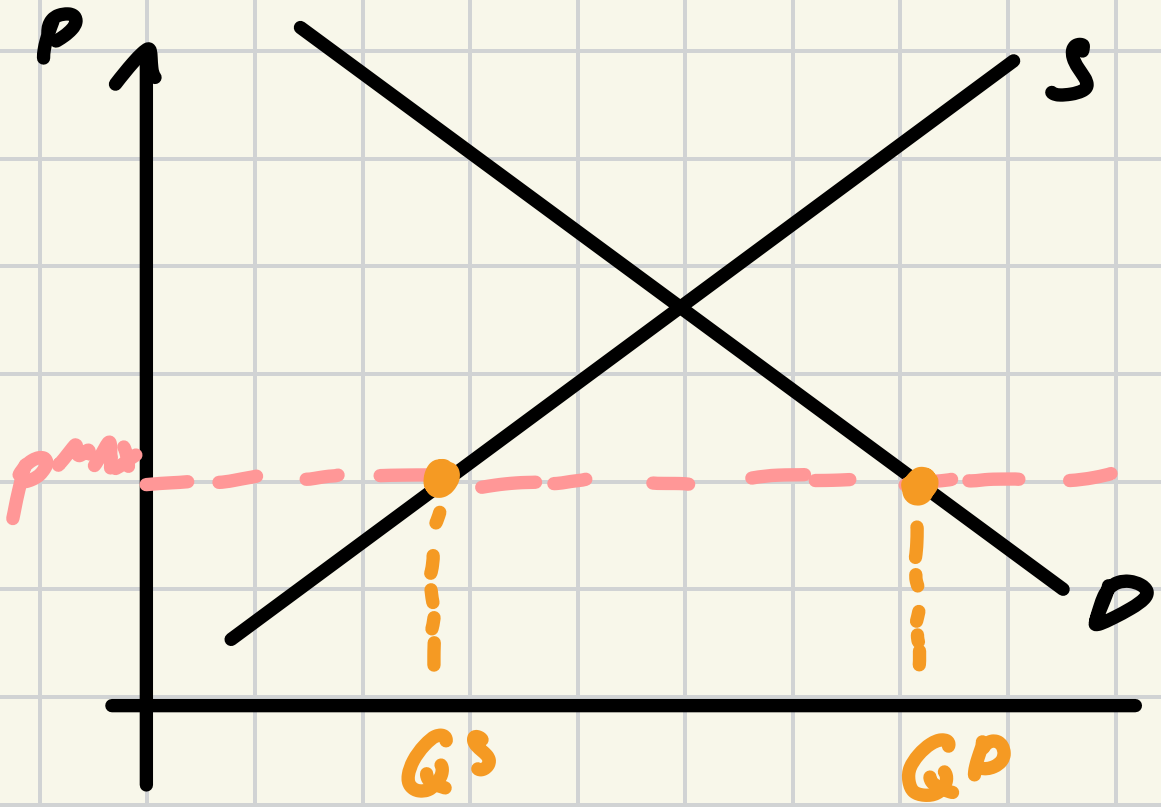
/// Firms pay

More Inelastic side pays more

Solutions Q_2



Question 3



$Q^D > Q^S$

shortage

Question 4

a) Demand: $P = 500 - 10Q$

Supply: $P = 100 + \frac{10}{3}Q$

$$500 - 10Q = 100 + \frac{10}{3}Q$$

$$400 = \frac{40}{3}Q$$

$$400 \cdot \frac{3}{40} = Q$$

$$Q = 30, \quad P = 500 - 10 \cdot 30$$

$$= 500 - 300$$

$$= 200$$

b) For all quantity sold, the price will be

$P' = P + 50 \Rightarrow P = P' - 50$

$$P' - 50 = 100 + \frac{10}{3} Q$$

$$P' = 150 + \frac{10}{3} Q$$

c) $130 + \frac{10}{3}Q = 500 - 10Q$

$350 = \frac{40}{3}Q$

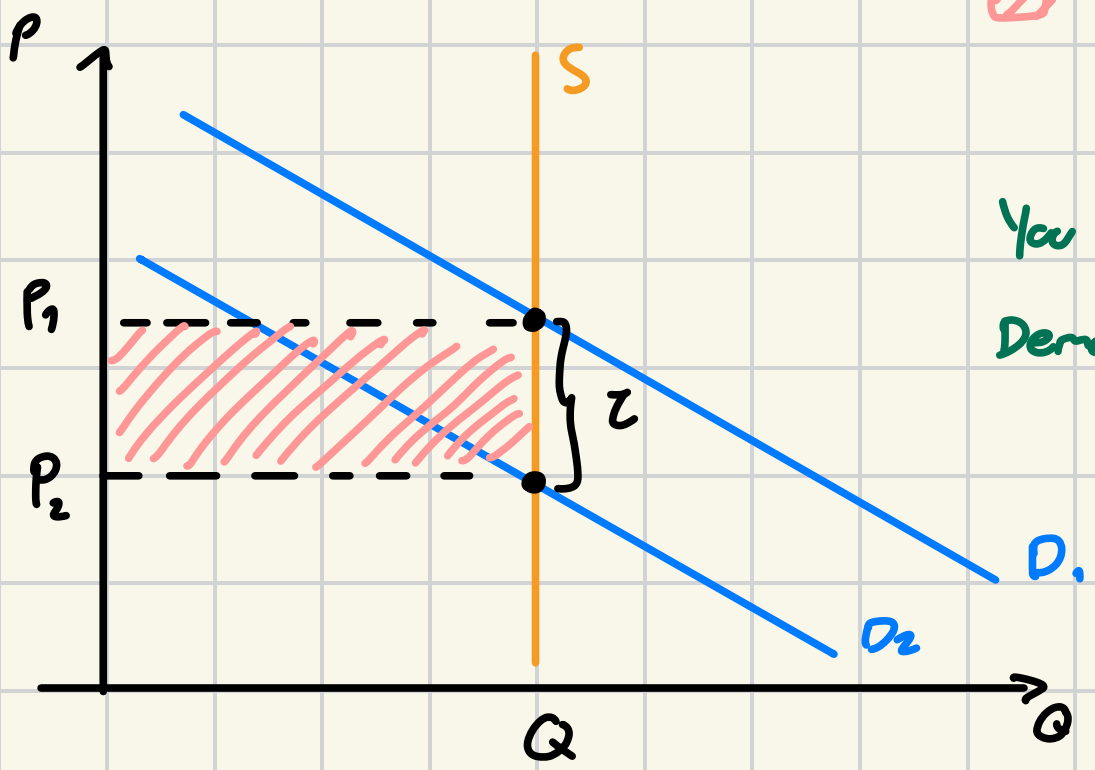
$Q = \frac{105}{4}$

$P' = 500 - 10\,\frac{105}{4_2}$

$P' = \frac{1000 - 525}{2} = \frac{475}{2}$

$P = \frac{475}{2} - 50 = \frac{375}{2}$

Question 5



▨ Amount that firms pay

You need Perfect Inelastic Demand or Supply

In this case, Q does not change, hence $Q \cdot \tau$ is maximum. The gov can impose any tax and the quantity won't decrease