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Chapter 3 - Government intervention in microeconomic markets

* Taxes

→ A tax is a mandatory financial charge imposed upon a taxpayer (e.g. a person or an organization) by a governmental organization.

→ A tax can be direct or indirect.

→ A direct tax is a tax imposed on the income, wealth or profit of a person or an organization.

→ An indirect tax is a tax imposed on expenditure on goods or services.

* Reasons for Taxation

→ Fund government spending
→ To correct market failure
→ Redistribute income and wealth
→ Manage the economy

* Main Areas of Government spending

→ Social protection (transfer payments)
→ Provision of public goods
→ Provision or subsidization of merit goods
→ Provision of infrastructures
→ Operating costs
→ Debt service.

(Qualities)

* The 4 Cannons of Taxation
  - → Equity
  - → Certainity
  - → Convenience
  - → Economy

① Cannon of Equity
→ Taxes should be imposed in accordance with the principle of ability to pay.

② Cannon of Certainty
→ Taxpayers should know exactly how much, when to, whom and how they are to pay the tax.

③ Cannon of convenience
→ The tax should be levied in a manner that is convenient to the taxpayer.

④ Cannon of economy
→ The cost of collecting the tax should be as low as possible.

* Average tax rate (ATR)

$$ATR = \frac{\text{Total tax paid}}{\text{Income}} \times 100$$

→ Marginal tax is tax on every extra income earned.

* Transfer payments is the redistribution of income when the government makes a payment to the vulnerable section of the society without goods or services being received.

* Tax Systems

→ Tax systems can either be progressive, regressive or proportional.

→ In a progressive tax system, the ATR rises when income increases (i.e. high-income households pay a larger proportion of their income than low-income households).

→ In a proportional tax system, the ATR is constant when income increases (i.e. all households pay the same proportion of their income).

→ In a regressive tax system, the ATR decreases when income increases (i.e. high-income households pay a smaller proportion of their income than low-income households).

* Limitations of progressive tax system

→ Progressive taxation may create a disincentive to take a job or to work longer hours (e.g. ~~proper~~ poverty trap).

→ Progressive taxation might include high-income households to undertake tax avoidance and tax evasion.

→ Progressive taxation might include high-income households and firms who move to tax havens. Tax havens are country who have less tax rate. Even rich people feel that these tax is benefitting someone

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* Indirect tax and equity

→ Indirect taxes are regressive in nature because the average propensity to consume (the proportionate of income spend is spent by households on goods and services) tends to decrease as income rises.

* Poor spend a higher proportion of their income on ~~to~~ indirect taxes and it falls less heavily on the rich people.

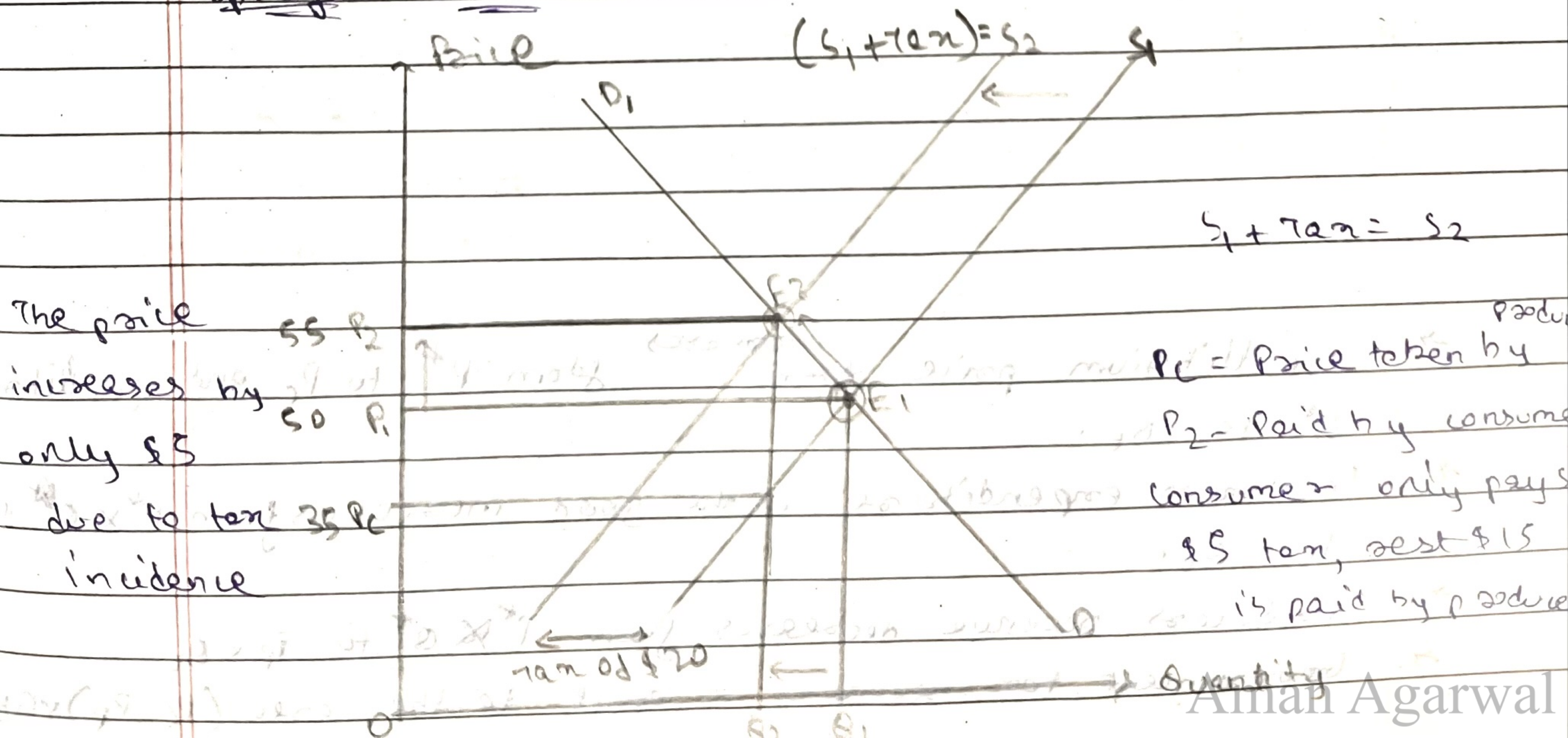
* The impact of indirect taxes on market equilibrium

→ An indirect tax can be specific or ad valorem.

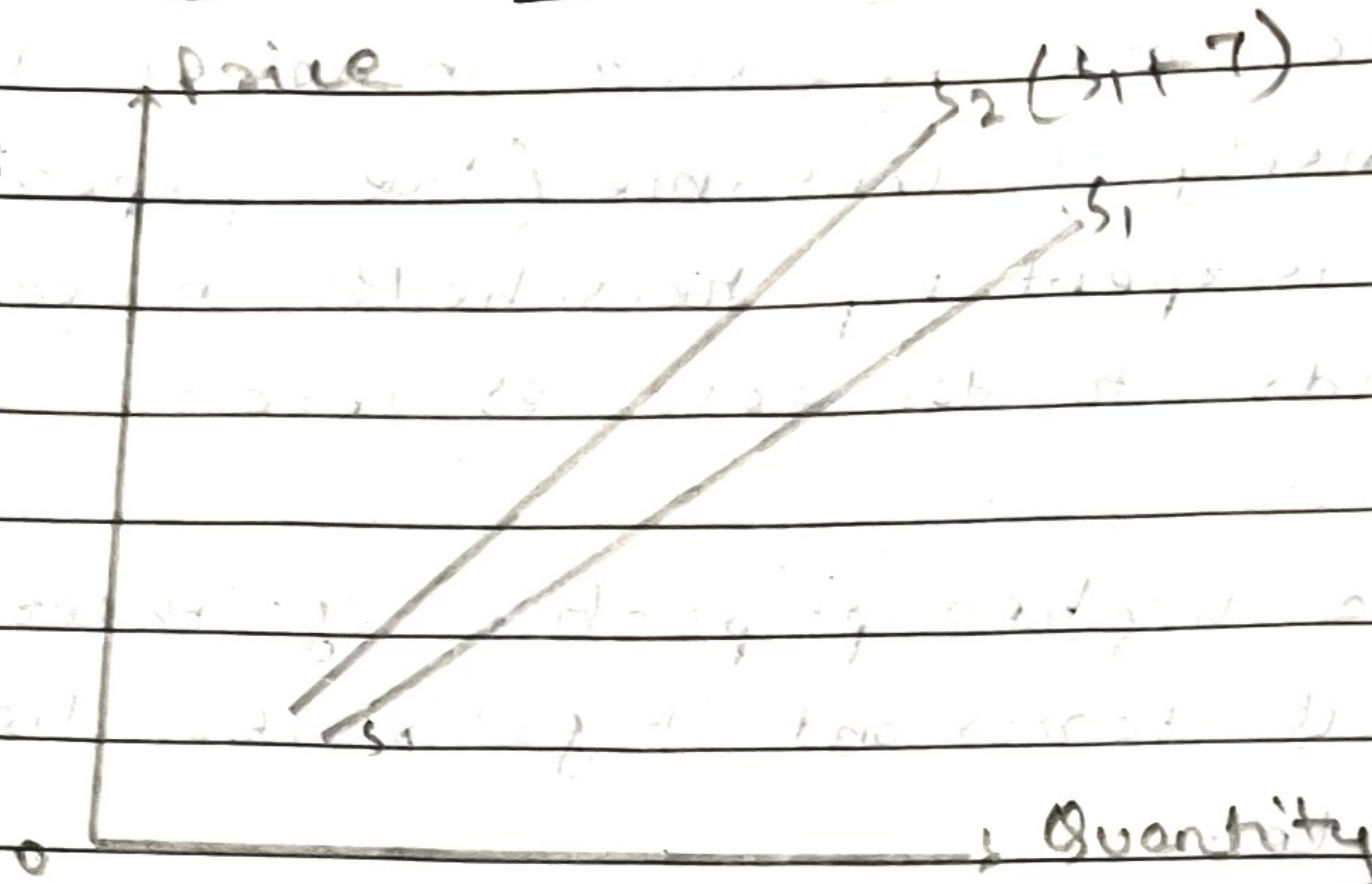
* A specific or per unit tax is an indirect tax whose amount is proportional to the quantity i.e. the volume of a good or service regardless of its price.

* An ad valorem tax is an indirect tax whose amount is proportional to the price, i.e. the value of a good or service.

* Specific taxes

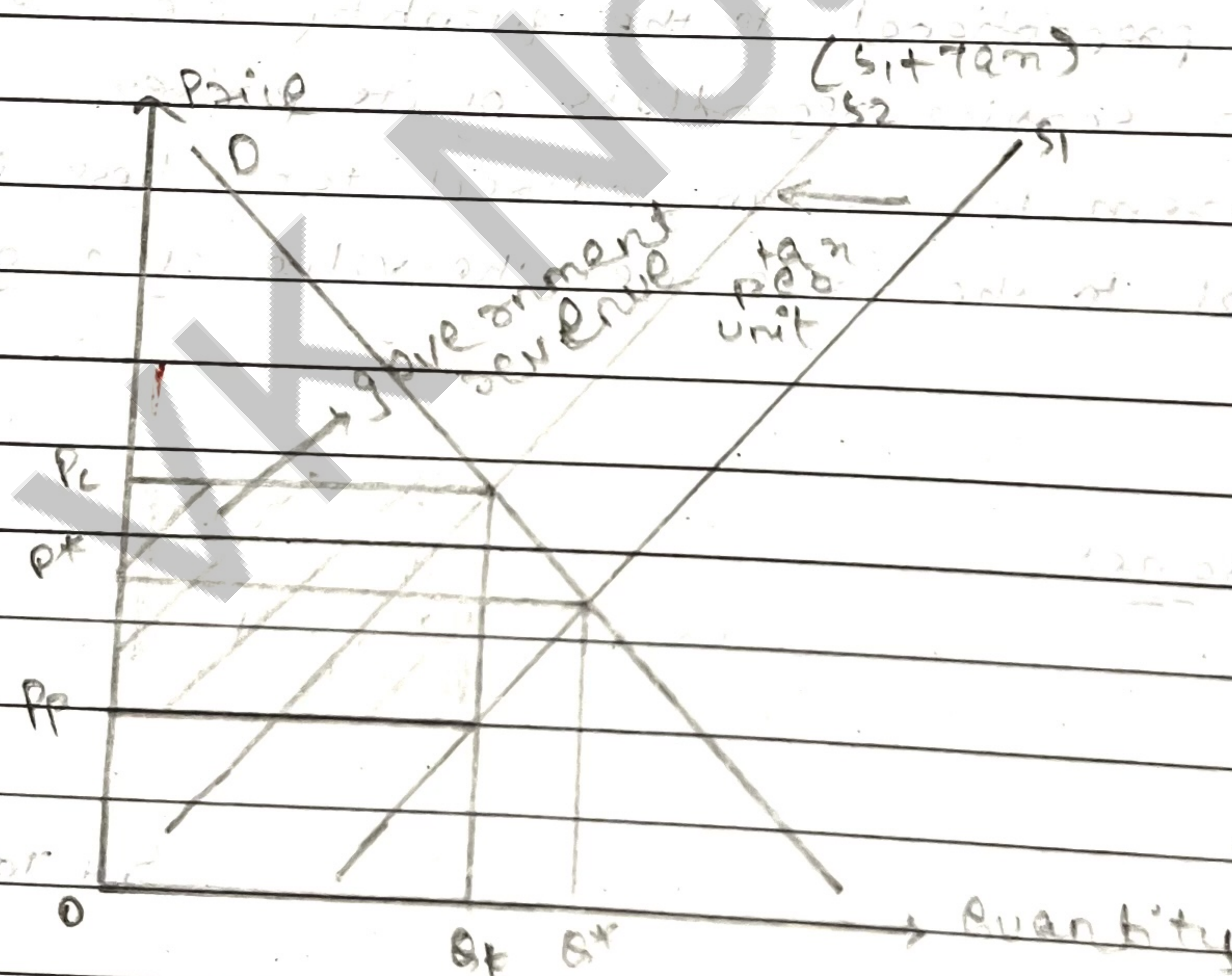


* Ad valorem tax



As ~~ta~~ with increase in price tax amount also increases hence the shift is not parallel.

* market outcome of specific tax



→ Equilibrium price ~~from~~ increases from P^* to P_c and equilibrium Q^* to Q_t.

→ Consumers expenditure on the good increases from $P^* \times Q^*$ to $P_c \times Q_t$.

→ Producers revenue decreases from $P^* \times Q^*$ to $P_p \times Q_t$

→ Government tax revenue is equal to the area [illegible]

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* Consequences on various stakeholders

→ Consumers - they are at worse-off as they have to pay a higher price for a lesser quantity.

→ Producers - they are at worse-off as they receive a lesser amount of revenue.

→ Government - they are better-off as they are earning tax revenue.

→ Employees - they are at worse-off as the producers may fire them or might reduce their salary as they themselves are at worse-off.

→ Society - the society is at worse-off as there is under-allocation of resources due to government intervention, which leads to allocative inefficiency

* Evaluation of taxes
→ Positives of taxes
- Helps in the decrease in the consumption of demerit goods
- Helps generate government revenue.
- Helpful in reducing external costs. (pollution)

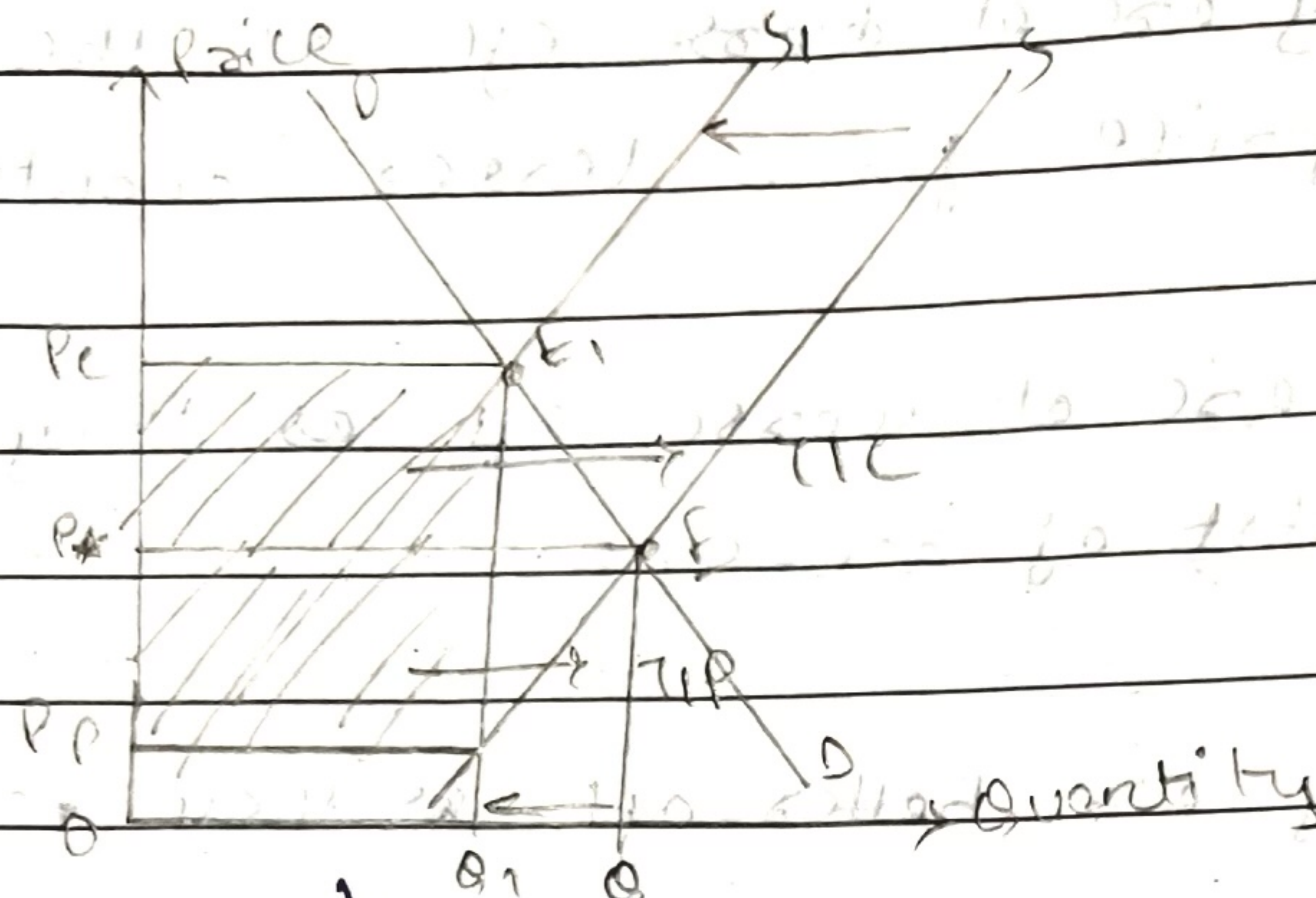
→ Negatives of taxes
→ Ineffective in case of inelastic demand.

→ The more inelastic curve, more incidence on the same side.

→ The more elastic supply, more incidence on the opposite side.

* Tax revenue and Tax incidence

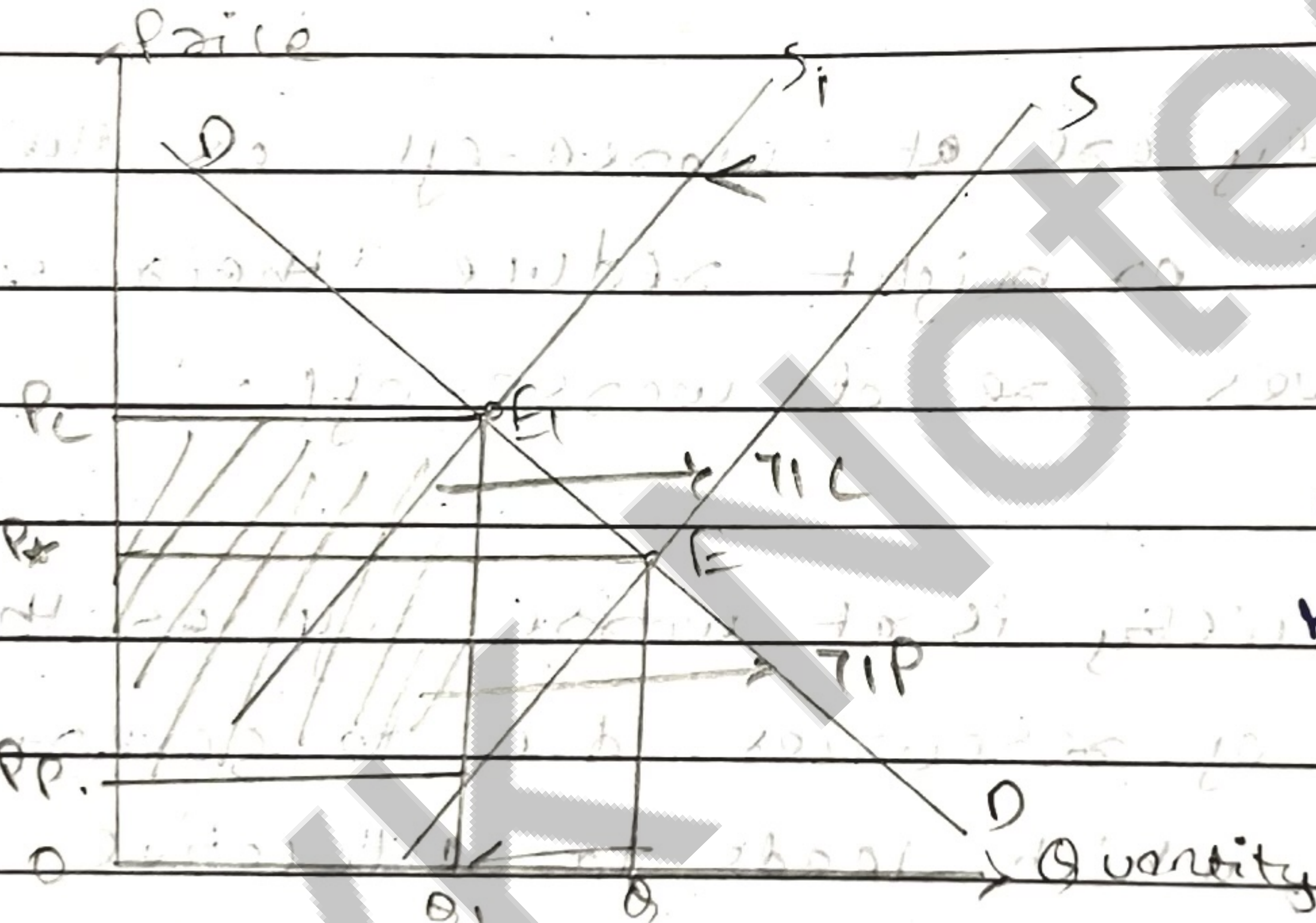
* Inelastic demand



TIC > TIP

The tax incidence is more with the consumers as producers can pass more tax burden on to the consumers as demand is inelastic

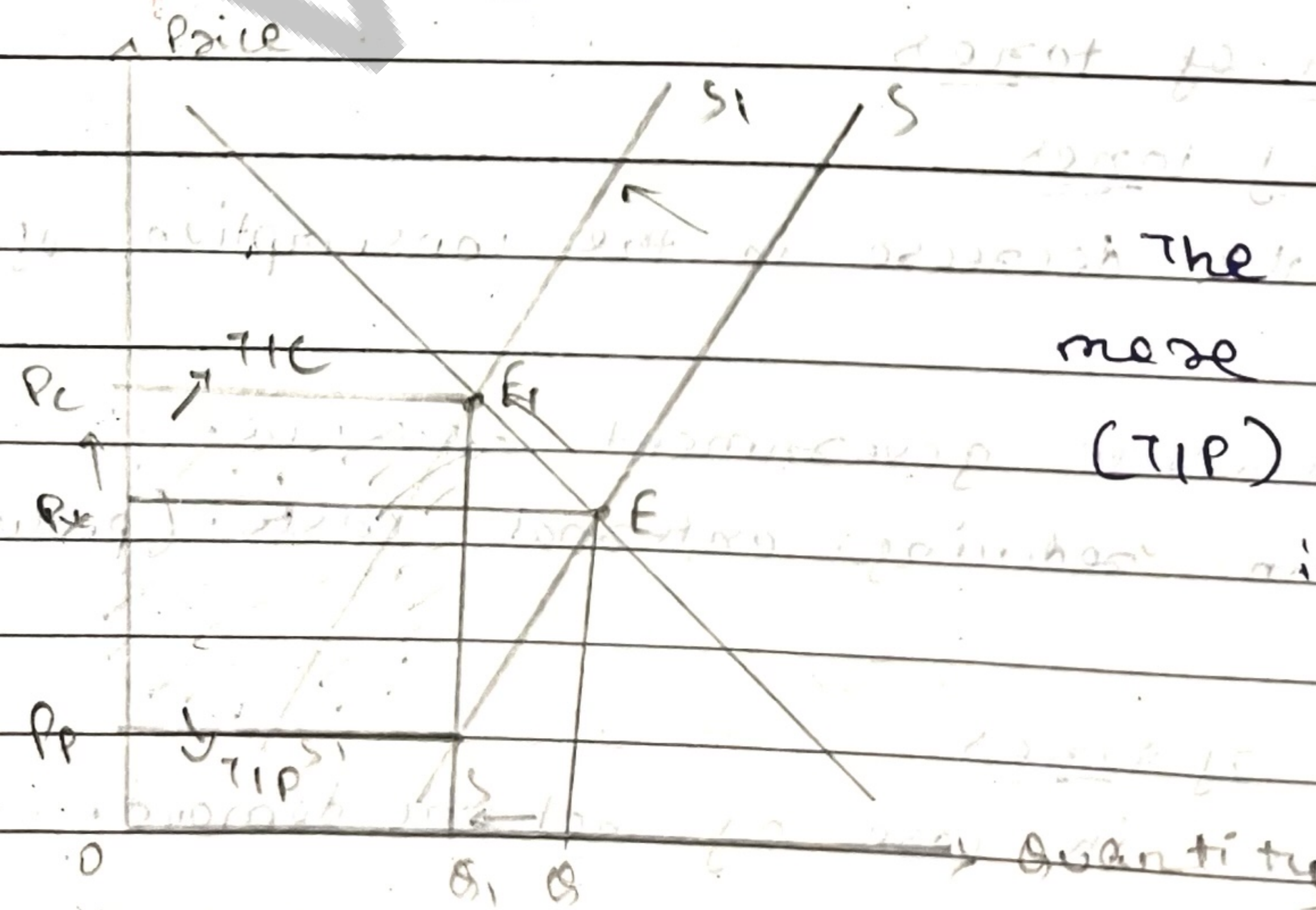
* Elastic demand



The tax incidence is more with the producers as producers cannot pass the tax burden to the consumers due to elastic demand

TIP > TIC

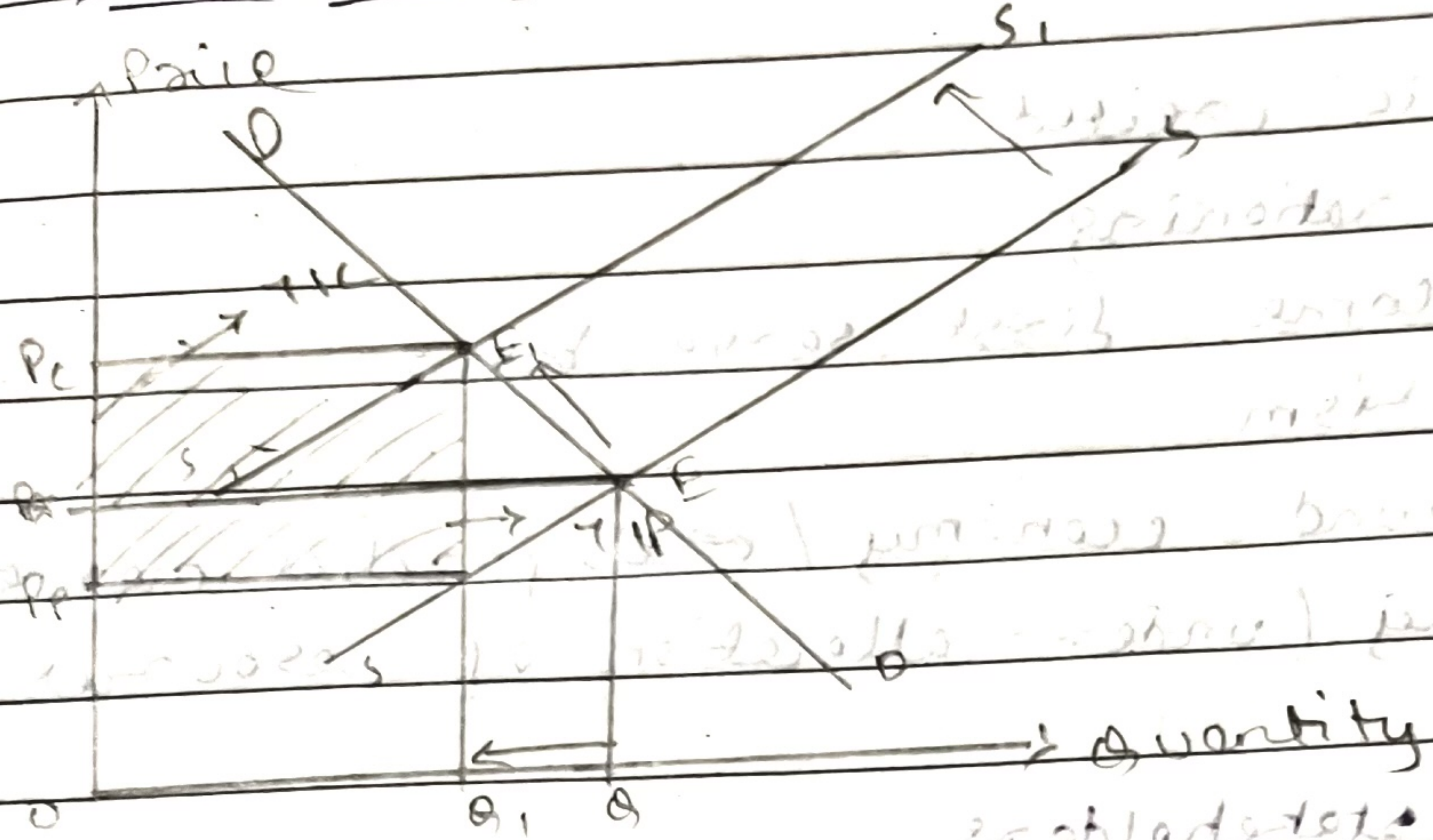
* Inelastic supply



The tax incidence is more with the producer (TIP) as the supply is inelastic.

TIP > TIC

* Elastic supply

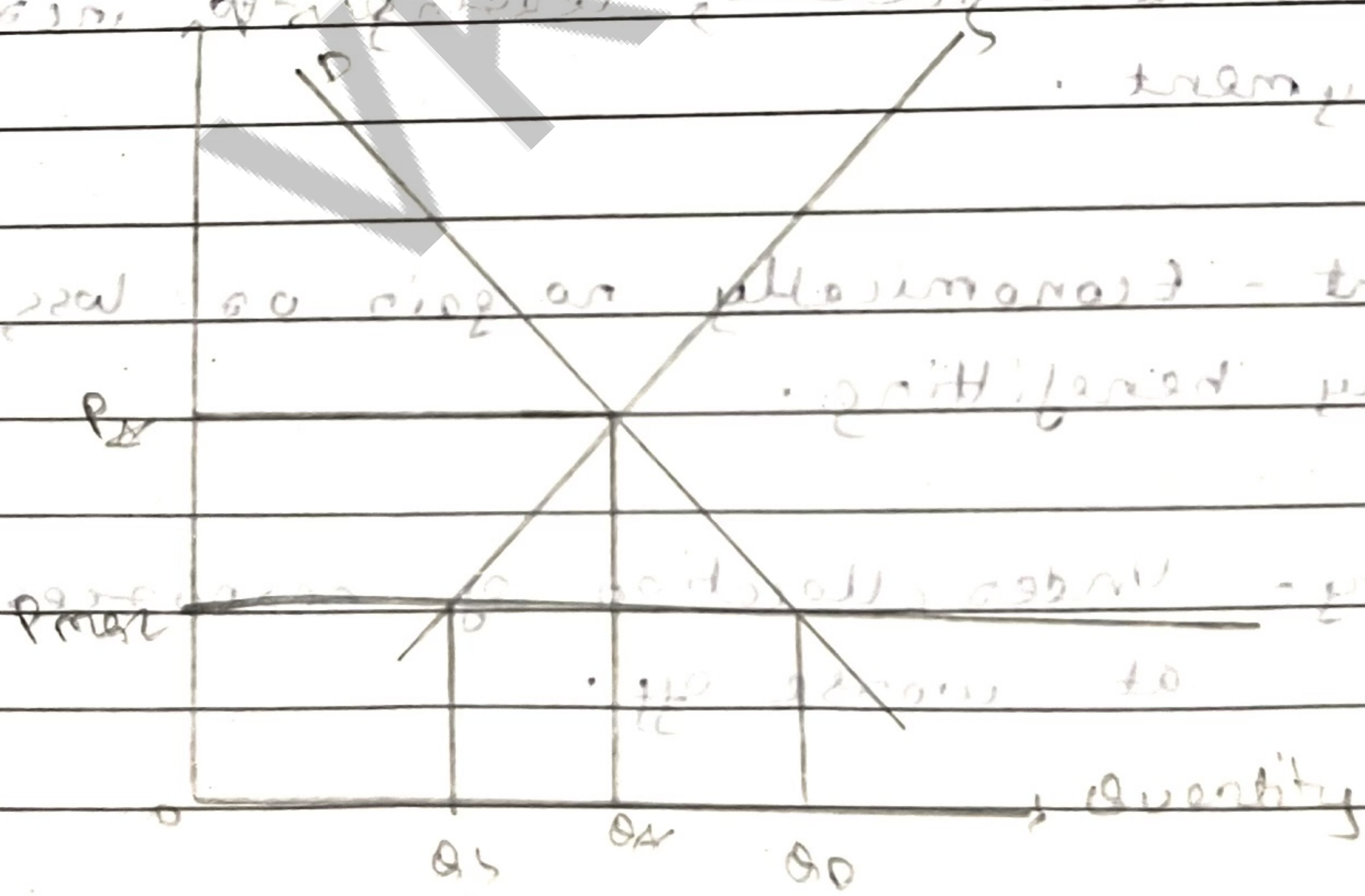


TIC > TIP

the tax incidence is more with the consumers as the supply is elastic.

* Price control - maximum and minimum prices

* Price control is a legal restriction on how high or low a market price may go.
* maximum price needs to be below the equillibrium price
* A price ceiling is a maximum price - sellers are allowed to charge for a good or service.



shortage

QD > QS

In the above diagram Pmax, stands for the maximum price imposed by the government which gives rise to a larger quantity demanded of QD, which is greater than the quantity supplied (QS) creating a shortage equal to QD-QS

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* Consequences of maximum prices

→ Shortage is created
→ Non-price rationing
  • First come first serve basis
  • Favouritism
→ Underground economy / ~~other~~, parallel market.
→ Inefficiency (under-allocation of resources).

* Effect on stakeholders

① Consumers - A few consumers are ~~partl~~ partly better off or worse off.

② Producers - Can only sell at the fixed maximum price so at worse off.

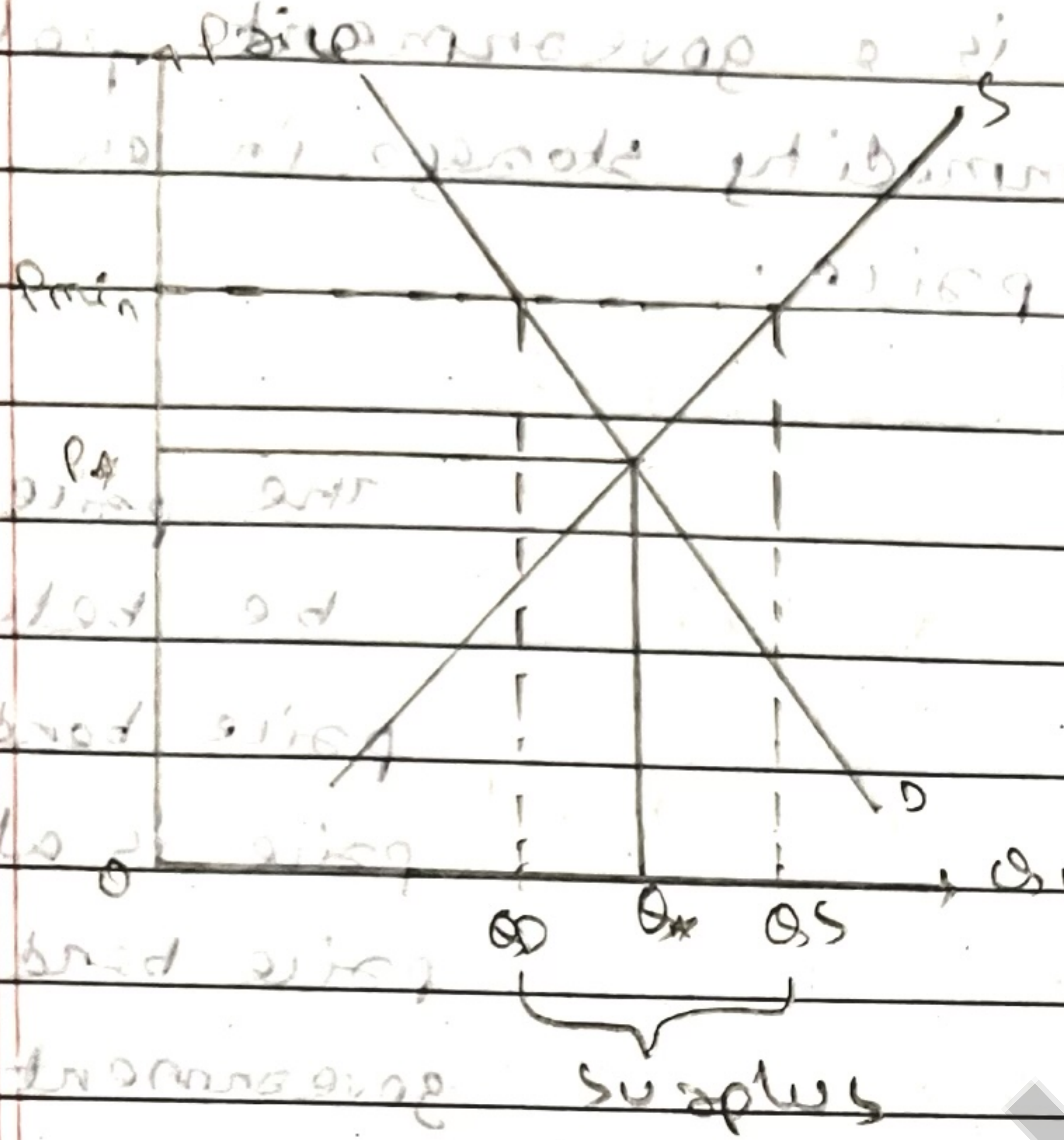
③ Employees - Since low quantities are supplied, fewer employees are needed, leading to increased unemployment.

④ Government - Economically no gain or loss, are politically benefitting.

⑤ The society - Under allocation of resources so are at worse off.

* <u>minimum prices</u>

Why? — To support income of farmers
— To decrease consumption of demerit goods
— To protect workers (blue collar)



In the diagram Pmin stands for the minimum price imposed by the government which gives rise to a larger quantity supplied of QS which is greater than the quantity demanded (QD) at that price.

* <u>Consequences of minimum prices</u>

+ surplus is created
+ Overallocation of the resources, hence inefficiency.
+ Allocative inefficiency.

* <u>Effect on stakeholders</u>

1. Consumers - Higher prices needs to be paid, so worse off
2. Producers - Partly better off and worse off.
3. Employees - Higher employment rates so better off.
4. Government - worse off if needed to buy excess supply but politically better off.
5. Society - worse off as overallocation of resources and free market principle is not followed

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Advantages :

- Helps in stabalizing the price
- Protects producers against sharp decreases in prices

Disadvantages :

- Constant government intervention required
- Overstorage of goods
- Costly to maintain

* Provision of information
Example - health warning on cigarette packets like smoking kills.
advertising of benefit of healthcare and education

* Provision of goods

Government provides provision of merit goods such as education and healthcare, allowing maximum public to enjoy consumption.

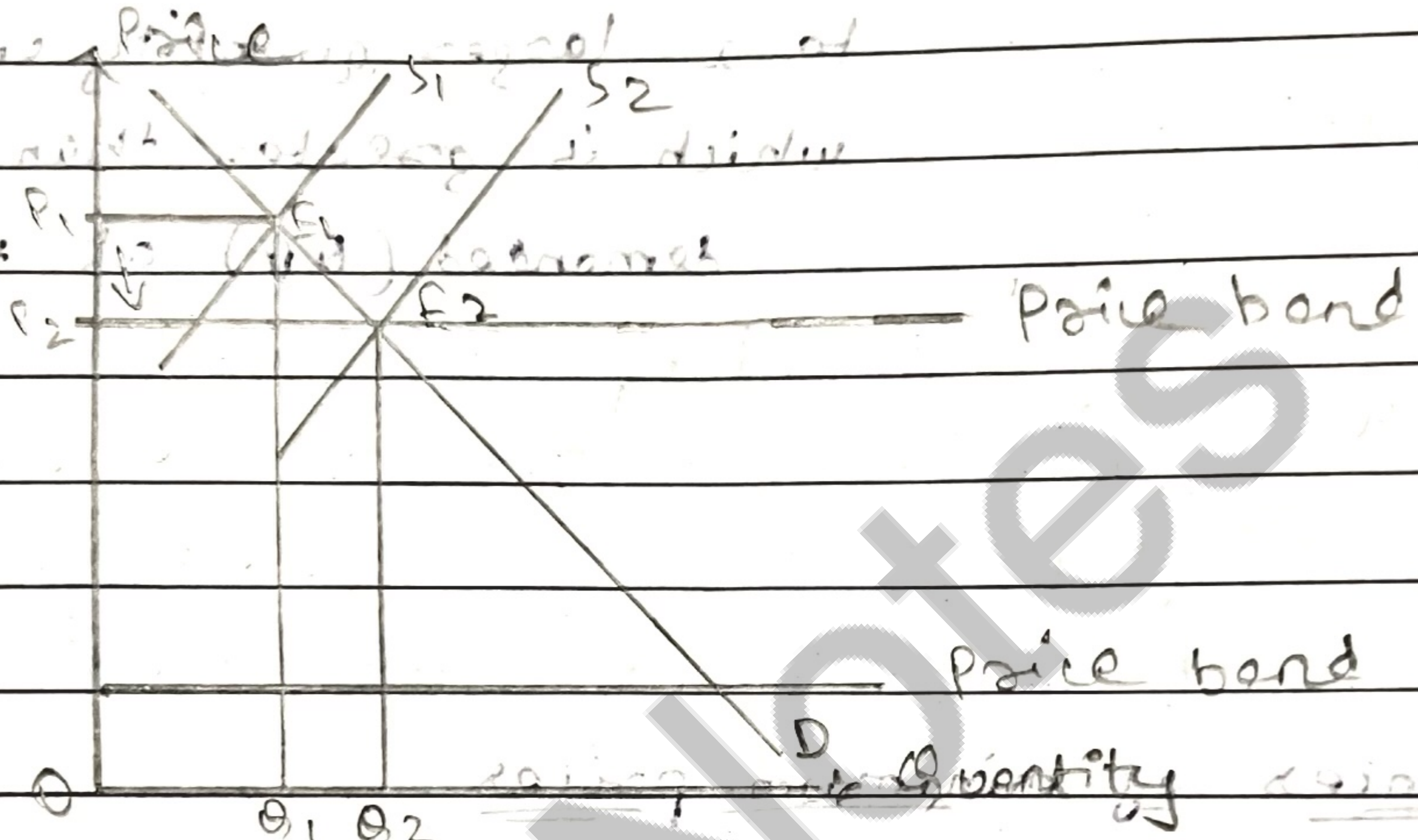
* Subsidies

→ Subsidy is a financial payment given by the government to the producers in order to encourage production of a merit good. Subsidies are given to increase the supply of merit goods, to support the producers and start-ups and to increase exports by export subsidies.

* Buffer stock schemes

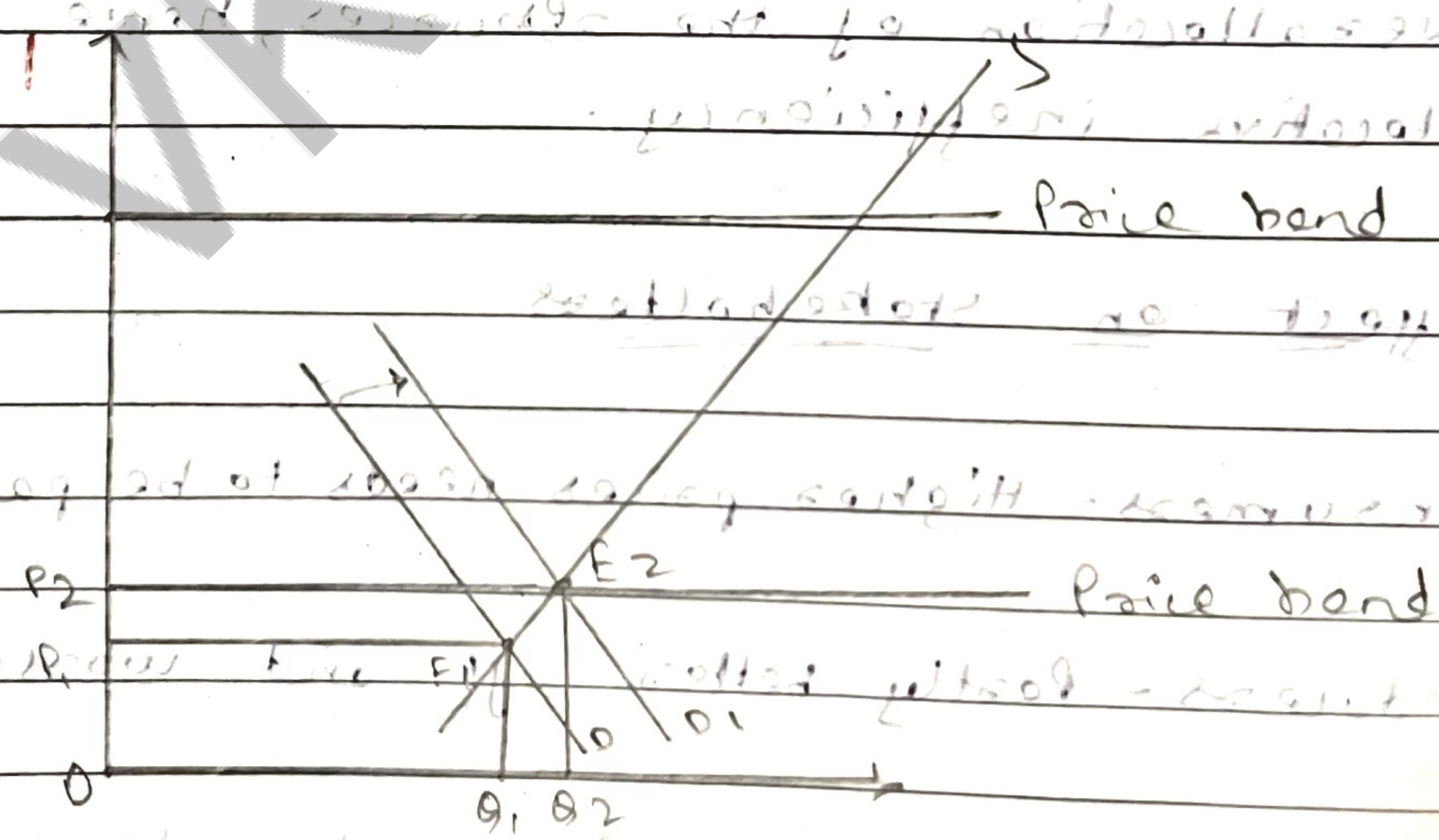
+ A buffer is something that lessens or absorbs a

+ A buffer stock scheme is a government policy which makes use of commodity storage in an attem to stabalize market price.

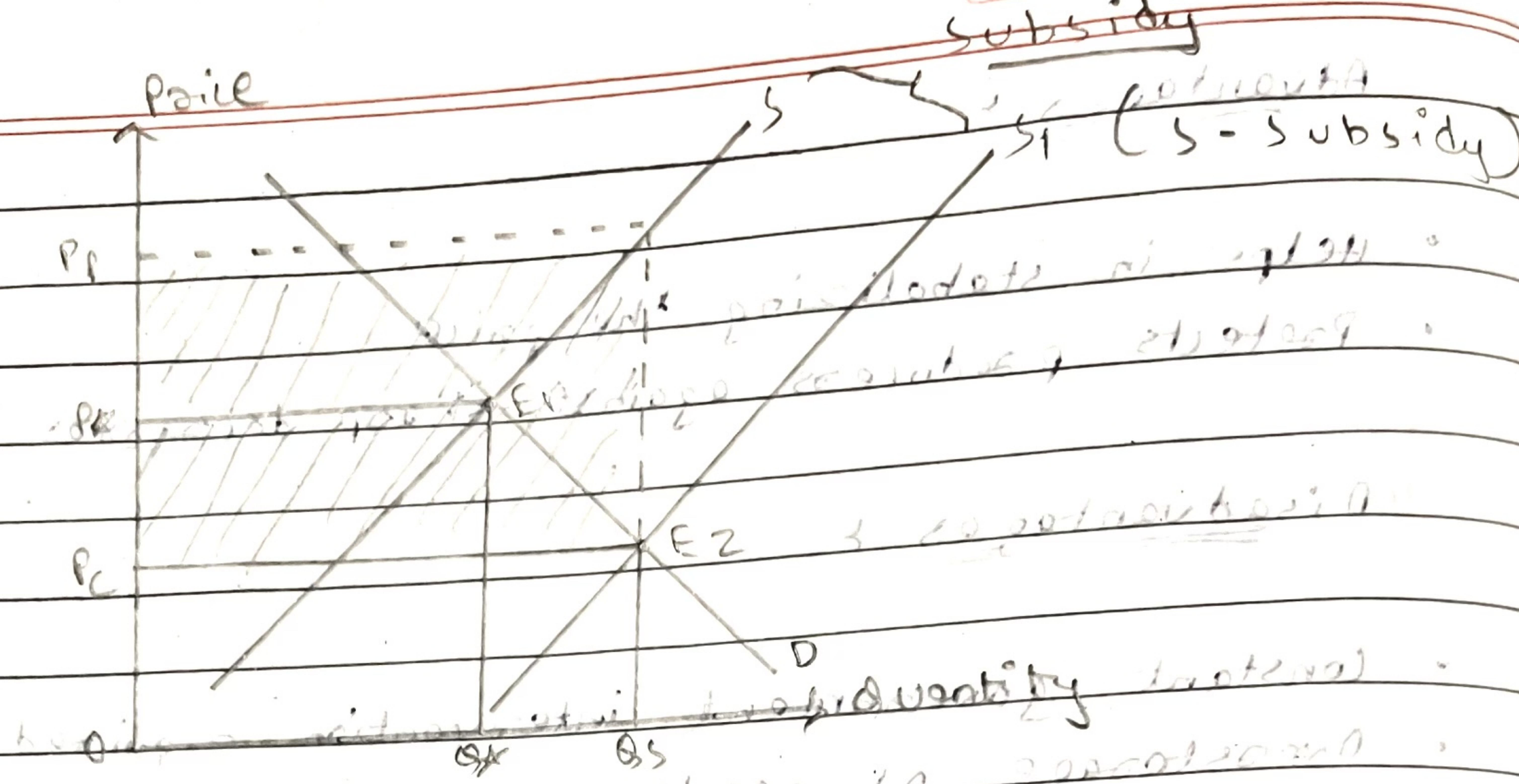


The price sho be between price band. As price is above price band, the government supp in the market bring down p

The government sells so the buffer stock decreases



The government buys from the market as the price is below the price band, so to increase the price in the market it has to increase the deman in the market for which it buys so the buffer stock increases.



→ In the above diagram, P* and Q* represent pre-subsidy equillibrium price and quantity.

→ The government grants a subsidy to the good which shifts the supply curve from S to S_1.

→ The new equillibrium quantity is Qs (Quantity from subsidy) with the price paid by the consumer being P_c and the price received by the producer being P_p.

→ Amount of the subsidy is given by the area $(P_p - P_c) \times Q_s$.

* Consequences of stakeholders

① Consumers - Better off as cheaper prices are charged for more quantity of goods.

② Producers - Better off as are supplying more at a higher price and receive more.

③ Employees - Higher employment as higher output needs to be produced.

④ Government - worse off as higher expenditure leads to

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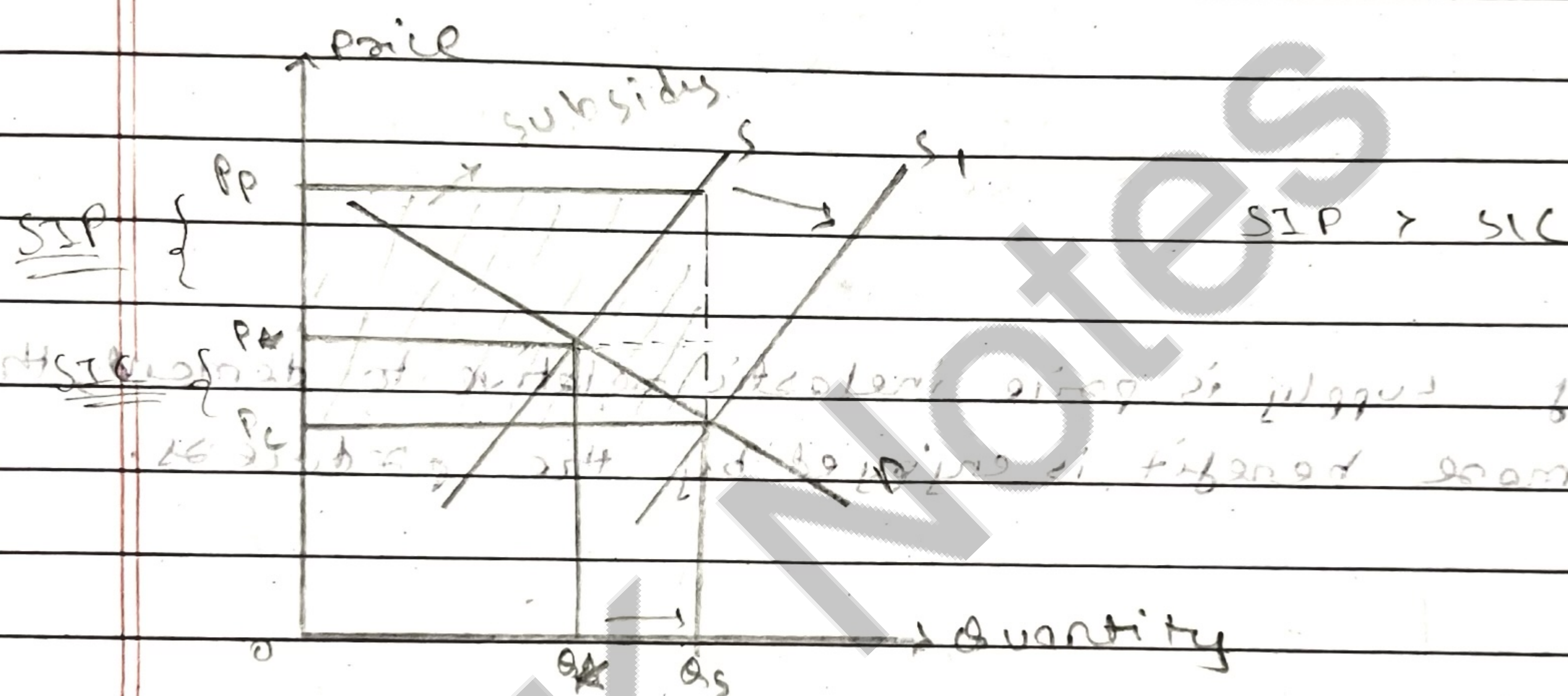
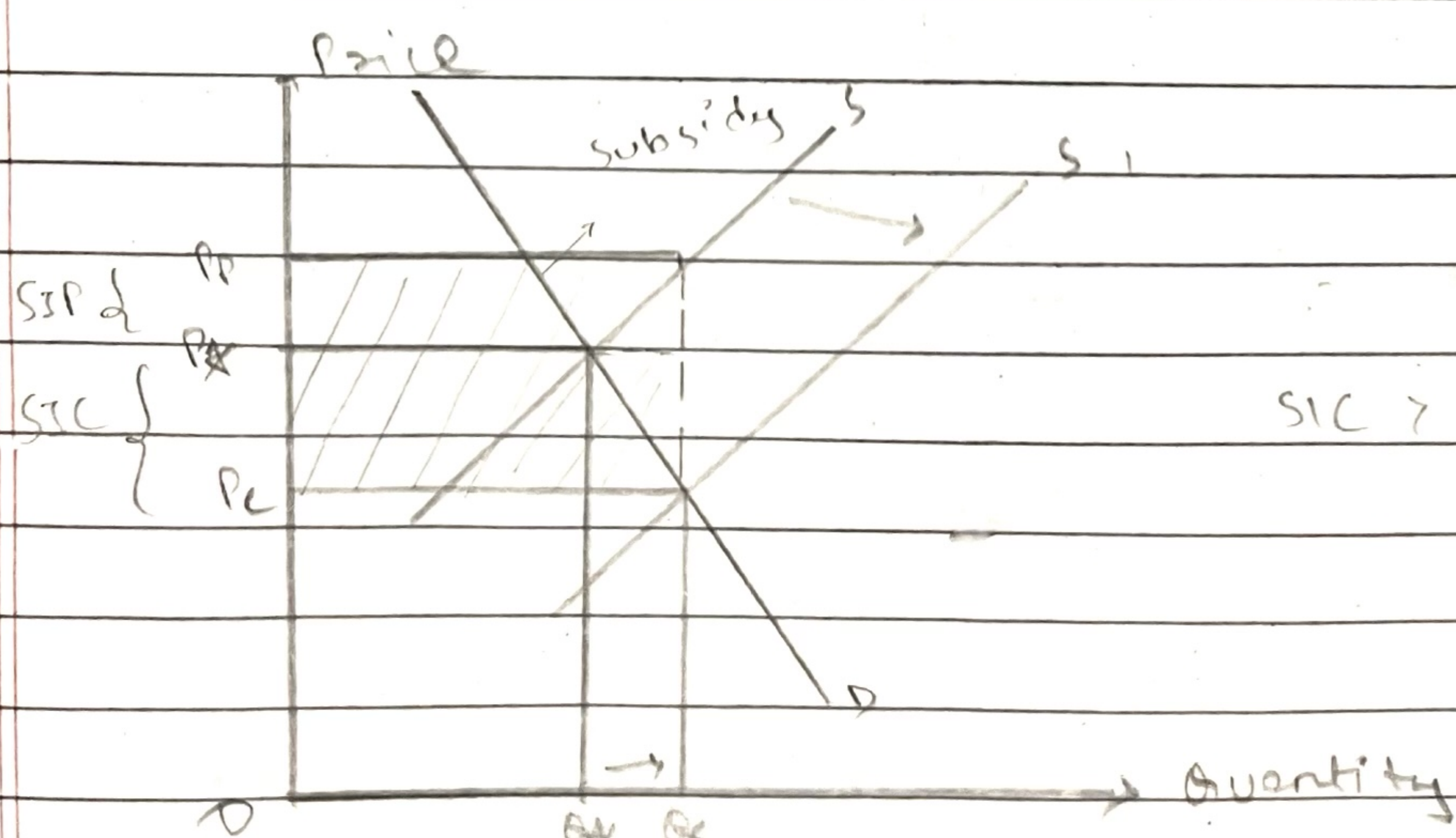
③ society - overallocation of resources so worse off.
free market principle not followed so worse off.

* Incidence of subsidies

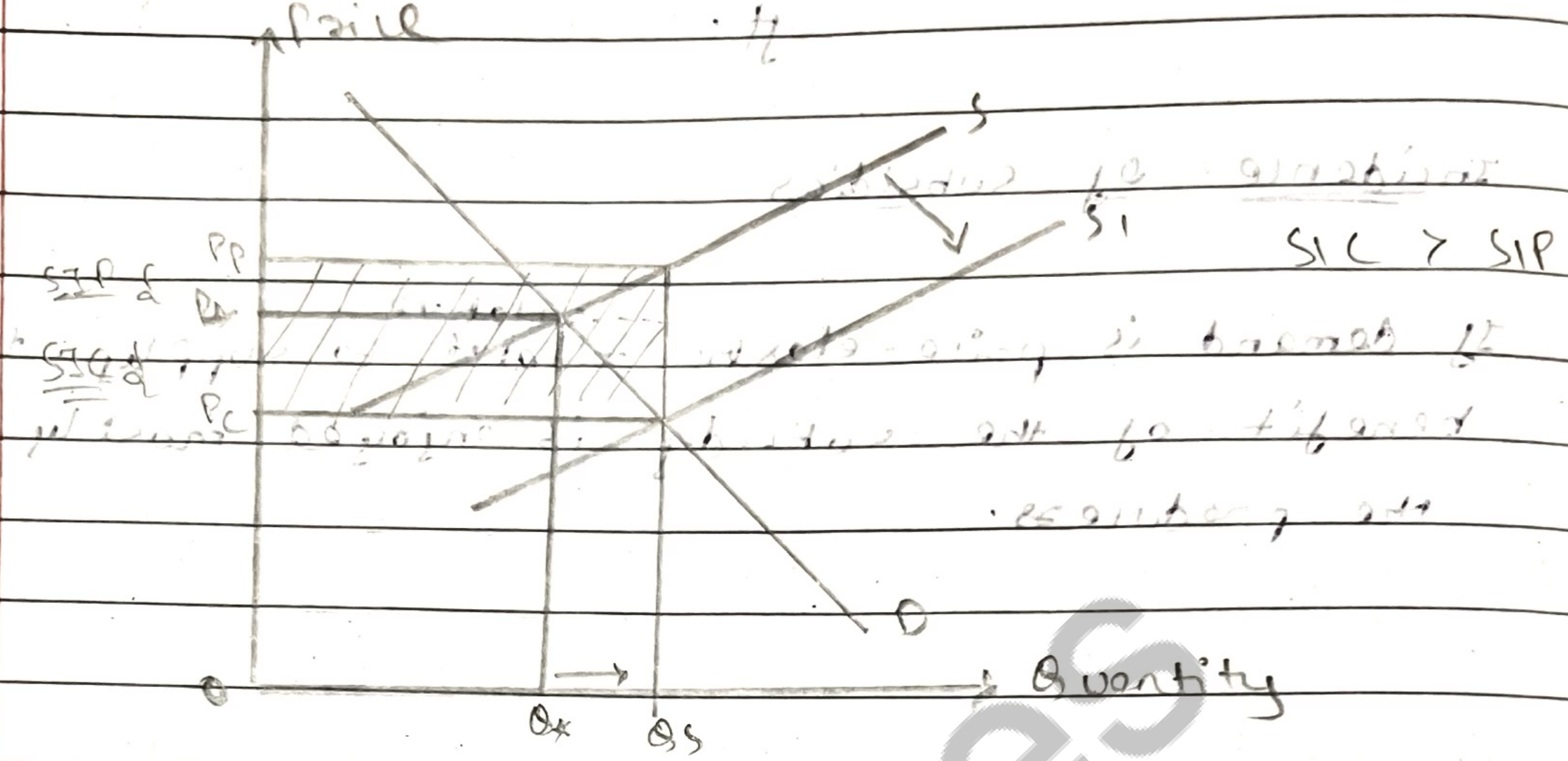
\+ If demand is price-elastic ~~related~~ relative to supply, the benefit of the subsidy is enjoyed mostly by the producers.



\+ If demand is price inelastic relative to supply, the benefit of the subsidy is enjoyed mostly by the consumers.



→ If supply is price elastic relative to demand, then more benefit is enjoyed by the ~~producers~~ consumers.



→ If supply is price inelastic relative to demand, the more benefit is enjoyed by the producers.