H2 Economics: Content Clinic 2

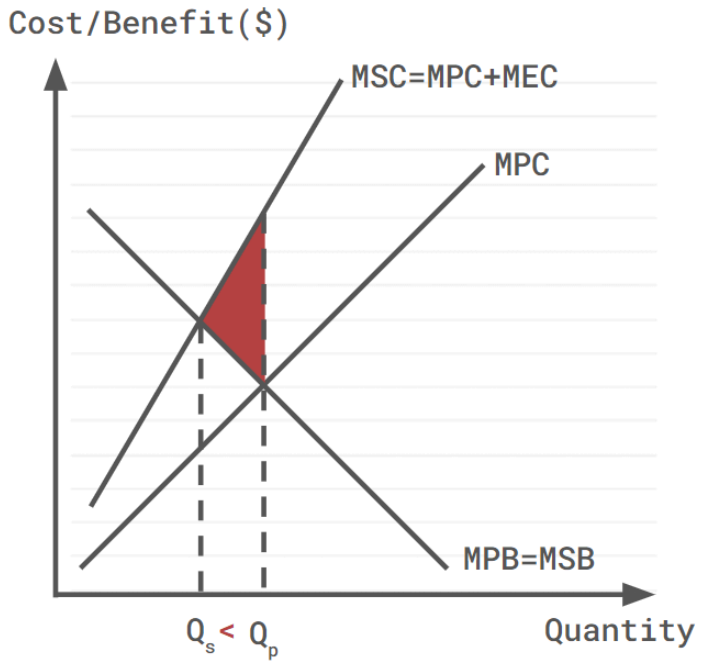
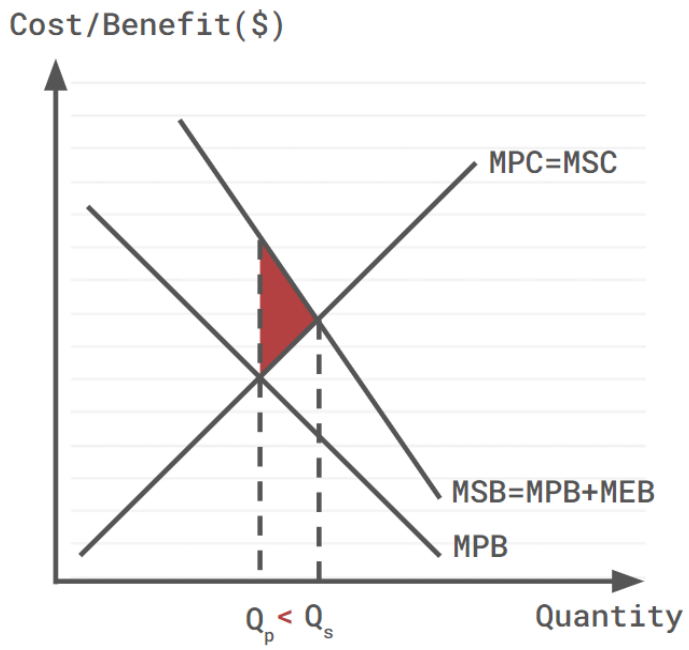
Key Definitions:

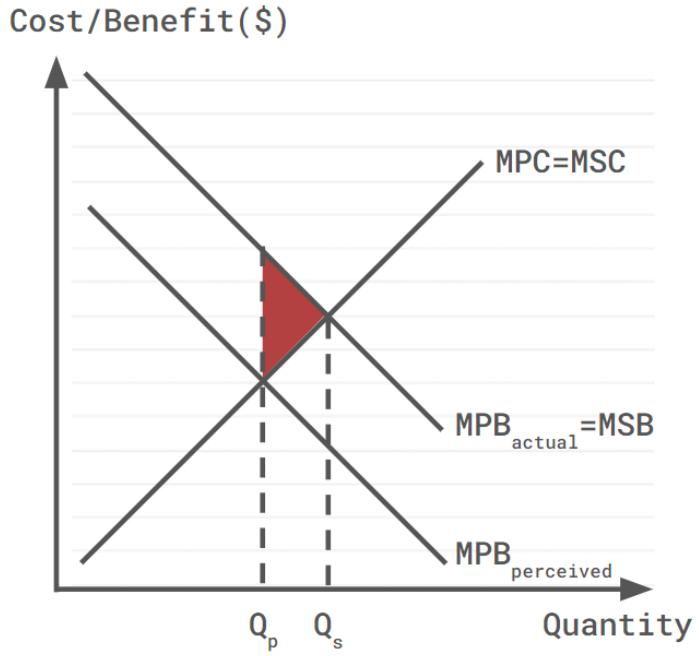
1. **Market failure** occurs when the free market is unable to allocate resources efficiently.
2. **Productive efficiency** occurs when the maximum possible amount of output is being produced from a given amount of resources.
3. **Allocative efficiency** occurs when the production of one combination of goods and services maximises society's utility.
4. **Public goods** are goods that exhibit the 3 characteristics of non-rivalry, non-excludability and non-rejectability.
5. **Non-rivalry** occurs when the consumption of a good by one or more consumers does not reduce the quantity available for others to consume.
6. **Non-excludability** occurs when it is impossible to exclude non-payers from consuming the good once it is produced.
7. **Non-rejectability** occurs when consumers are unable to refuse consumption of a good once it is produced.
8. **Negative externalities** are negative spill-over or third-party effects generated from the consumption/production of a good/service.
9. **Positive externalities** are positive spill-over or third-party effects generated from the consumption/production of a good/service.
10. **Third parties** are people who are not directly involved in the market transaction. (i.e. family members, friends, the government, employers)
11. **Imperfect information** occurs when there is incomplete or inaccurate information available to society.
12. **Asymmetric information** occurs when one party has more information than the other.
13. **Factor immobility** refers to the inability of factors of production to shift from one use to another due to geographical or occupational boundaries.

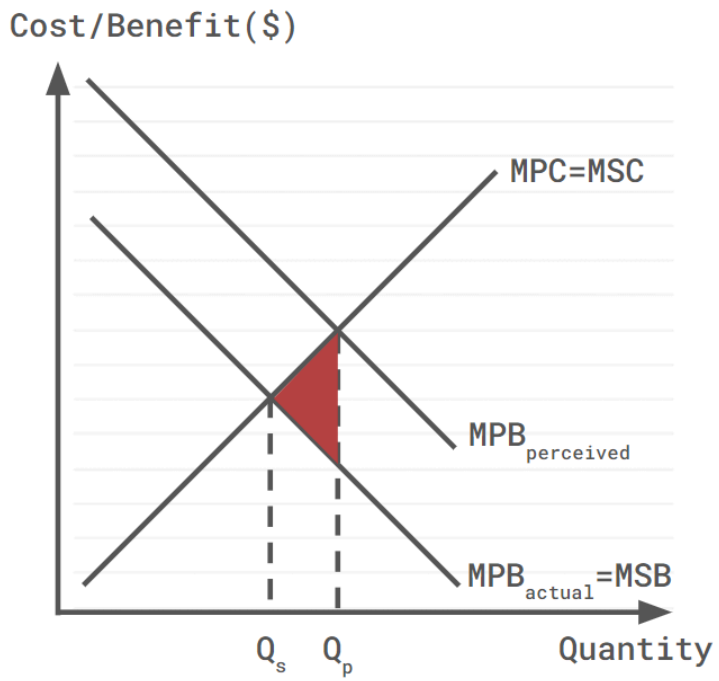
Key Concepts:

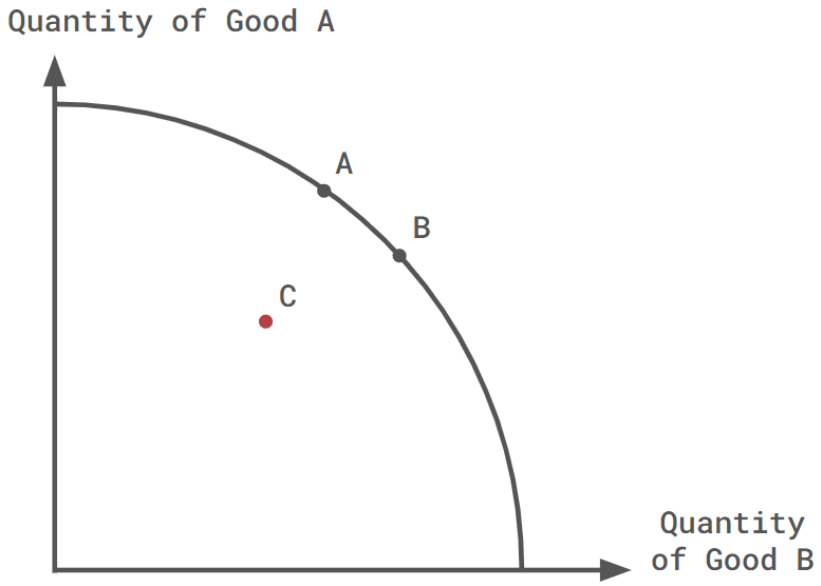
a) Sources of Market Failure:

Public Goods	
Diagram:	N/A (**Missing market**)
Explanation:	1. **Free-rider** problem ● Non-excludability: Non-payers able to enjoy the good → No one willing to pay → Wait for others to pay → No expression of demand ● Non-rivalry: Quantity available does not diminish when non-payers free-ride → Free-ridership continues to perpetuity 2. Efficient price to charge is **0** (Non-rivalry) ● Non-rivalry: Quantity available does not diminish when non-payers free-ride → MC of one additional user of the good is 0, once it has been produced → Allocatively efficient price to charge is 0 → Good should be made available to anyone that derives positive marginal benefit → No profit-driven firms willing to supply the good → No supply
Inefficient allocation of resources:	No allocation

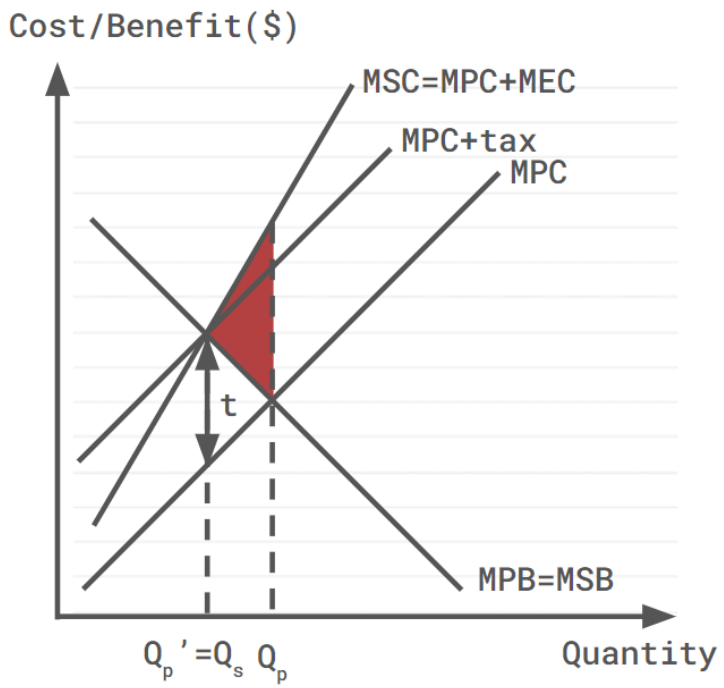
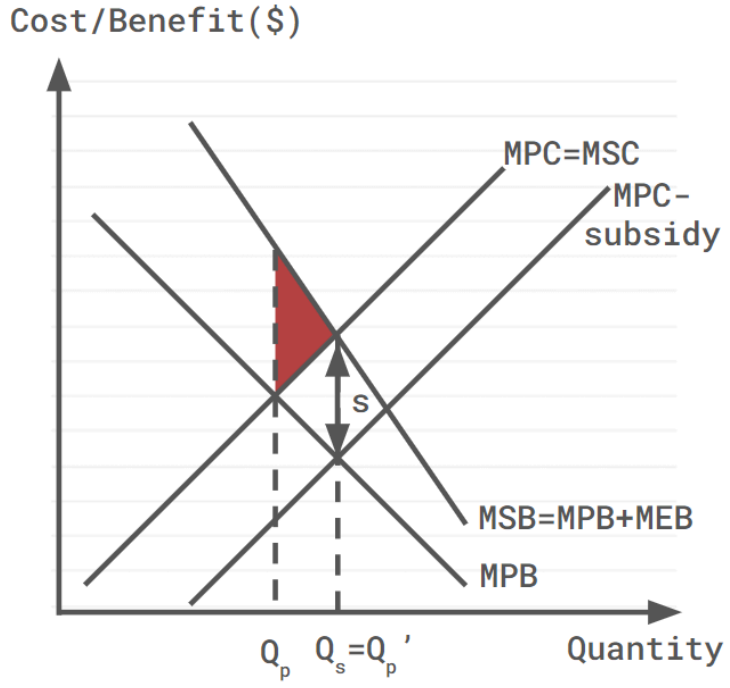
Negative Externalities	
Diagram:	
Perspective:	Consumption **OR** Production
Explanation:	7 Steps: 1. Establish free-market/private equilibrium (**MPC=MPB at Q_p**) 2. State assumptions (**Assume MEB=0**) 3. Explain divergence (**MSC above MPC**) 4. Establish socially optimal equilibrium (**MSC=MSB at Q_s**) 5. Identify inefficient allocation of resources (**Q_p>Q_s**) 6. Derive deadweight loss (**Net social costs incurred**) 7. Link to market failure
Inefficient allocation of resources:	**Over**-allocation
Positive Externalities	
Diagram:	

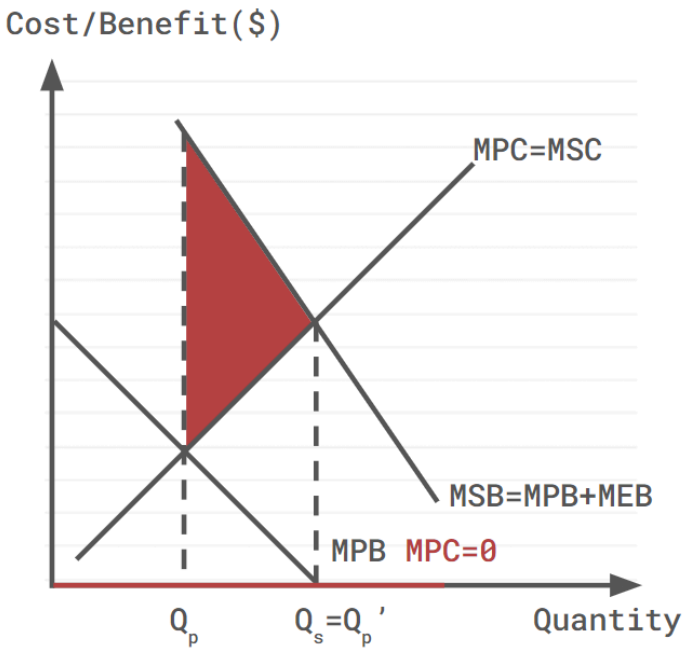
Perspective:	Consumption **OR** Production
Explanation:	7 Steps: 1. Establish free-market/private equilibrium (**MPC=MPB at Q_p**) 2. State assumptions (**Assume MEC=0**) 3. Explain divergence (**MSB above MPB**) 4. Establish socially optimal equilibrium (**MSC=MSB at Q_s**) 5. Identify inefficient allocation of resources (**Q_p<Q_s**) 6. Derive deadweight loss (**Net social benefits forgone**) 7. Link to market failure
Inefficient allocation of resources:	**Under**-allocation
Imperfect Information (Underestimation)	
Diagram:	
Perspective:	Consumption
Explanation:	**Lack of accurate/complete information** on full extent of private benefits → **Under-estimation** of private benefits → **Divergence** between $MPB_{perceived}$ and MPB_{actual} → **Under-allocation** of resources → Deadweight loss → Market failure
Inefficient allocation of resources:	**Under**-allocation

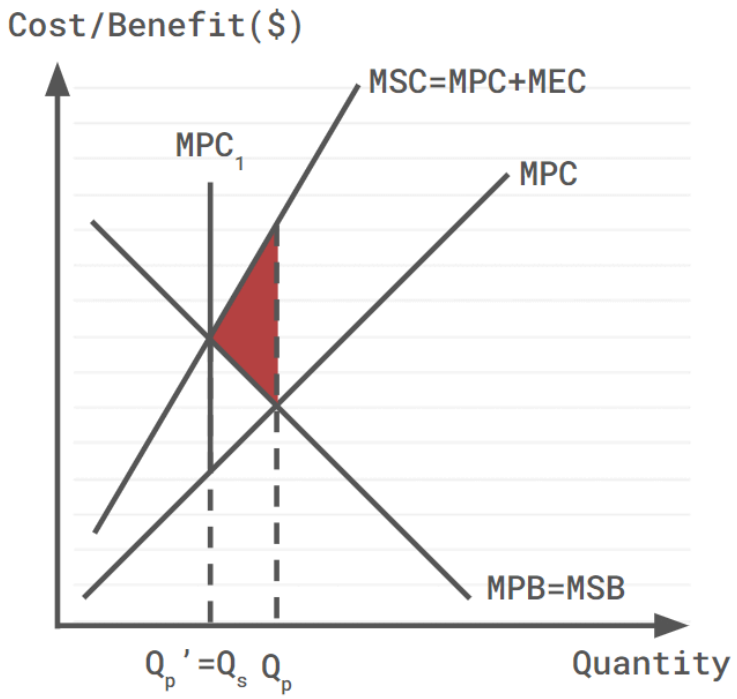
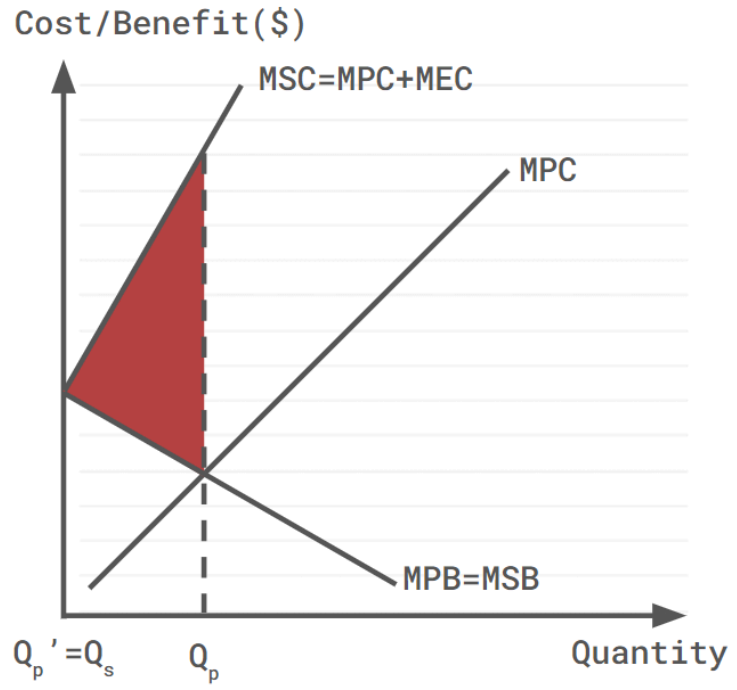
Imperfect Information (Overestimation)	
Diagram:	
Perspective:	Consumption
Explanation:	**Lack of accurate/complete information** on full extent of private benefits → **Over-estimation** of private benefits → **Divergence** between $MPB_{perceived}$ and MPB_{actual} → **Over-allocation** of resources → Deadweight loss → Market failure
Inefficient allocation of resources:	**Over**-allocation
Asymmetric Information (Adverse Selection)	
Diagram:	N/A
Perspective:	Consumer information **<** Producer information
Explanation:	Consumers have **less information on quality** of the good/service → Consumers are unable to differentiate between high-quality and low-quality goods → Consumers **lower the price** they are willing to pay due to **possibility of receiving a lower-quality** good/service → Producers of **higher-quality goods/services unwilling** to enter the market
Inefficient allocation of resources:	No allocation for higher-quality product
Asymmetric Information (Moral Hazard)	
Diagram:	N/A
Perspective:	Consumer information **>** Producer information
Explanation:	Consumers have **more information on their future behaviour** → Consumers **engage in higher-risk activities** due to **the costs fully borne by another party** → Higher likelihood of insurance payout → Unprofitable for insurer → Exit market in extreme cases

Inefficient allocation of resources:	No allocation
Factor Immobility	
Diagram:	
Perspective:	Producer
Explanation:	Occupational Immobility: Barriers to mobility of factors of production **between industries and uses** → Workers not having the right skills to allow them to transfer between jobs Geographical Immobility: Lack of willingness/ability of factors of production to **move between and within countries** Structure of the economy changes → **Changes to skills and knowledge** to perform jobs → Factor immobility leads to structural unemployment of factors of production → Opportunity cost of **output forgone**
Inefficient allocation of resources:	**Under**-allocation (**Unemployment**)

b) Government Intervention

Indirect Specific Tax	
Diagram:	
Explanation:	Indirect tax imposed on producers, **equals to the MEC at Q_s** → Due to the **increased marginal cost**, producers **reduce supply** of the good/service → **Price increases** → The tax is **partially transferred** to the consumers, causing them to "**internalise**" the externalities → **MPC increases** from MPC to MPC+tax → Consumers **now consume at Qp'** which is equal to Qs, the socially optimal level of output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure
Aim:	**Decrease** consumption/production
Indirect Specific Subsidy	
Diagram:	
Explanation:	Indirect subsidy granted to producers, **equals to the MEB at Q_s** → Due to the

	decreased marginal cost, producers **increase supply** of the good/service → **Price decreases** → **MPC decreases** from MPC to MPC-subsidy → Consumers **now consume at Qp'** which is equal to Qs, the socially optimal level of output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure
Aim:	**Increase** consumption/production
Closing the Information Gap (Public Education/Legislation)	
Diagram:	N/A
Explanation:	1. Public Education: Government provides accurate and complete information to consumers/producers → Increase/decrease $MPB_{perceived}$ to MPB_{actual} → Consumers/producers now consume/produce at Qp', equals to Qs → Efficient allocation of resources → Deadweight loss eliminated → No market failure 2. Legislation: Government mandates the disclosure of information by producers → Same as Public Education
Aim:	**Increase/decrease** consumption/production
Direct Provision (Free Direct Provision)	
Diagram:	
Explanation:	Good is provided free to the consumers by the government → **MPC equals to 0** → Consumers **now consume at Qp'** which is equal to Qs, the socially optimal level of output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure
Aim:	**Increase** consumption

Standards (Quota)	
Diagram:	
Explanation:	Maximum output by producers in the market is **capped by the government at Q_s** → Output **falls from Q_p to Q_p'** where it equals Q_s, the socially optimal output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure
Aim:	**<u>Decrease</u>** production
Ban	
Diagram:	
Explanation:	Production/Consumption of the good is prohibited by the government → **Output set at 0** → Consumers/Producers **now consume/produce at Qp'** which is equal to Qs, the socially optimal level of output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure
Aim:	**<u>Decrease</u>** consumption/production

Cap-and-Trade (Tradable Permit)	
Diagram:	N/A
Explanation:	1. Maximum output by producers in the market is **capped by the government at Q_s** → Output **falls from Q_p to Q_p'** where it equals Q_s, the socially optimal output → **Efficient allocation** of resources → Deadweight loss is eliminated → No market failure 2. Number of total permits is decided by the government to achieve Q_s. 3. Producers are **able to trade** with other firms for permits/quotas should they require more → Allows for **free market forces** to take place → **Price** of permits/quotas **determined by forces of demand and supply**
Aim:	**Decrease** production
Compulsory Consumption	
Diagram:	N/A
Explanation:	Government mandates the consumption of a good/service
Aim:	**Increase** consumption