

# 4 Diagrams you need for Externalities

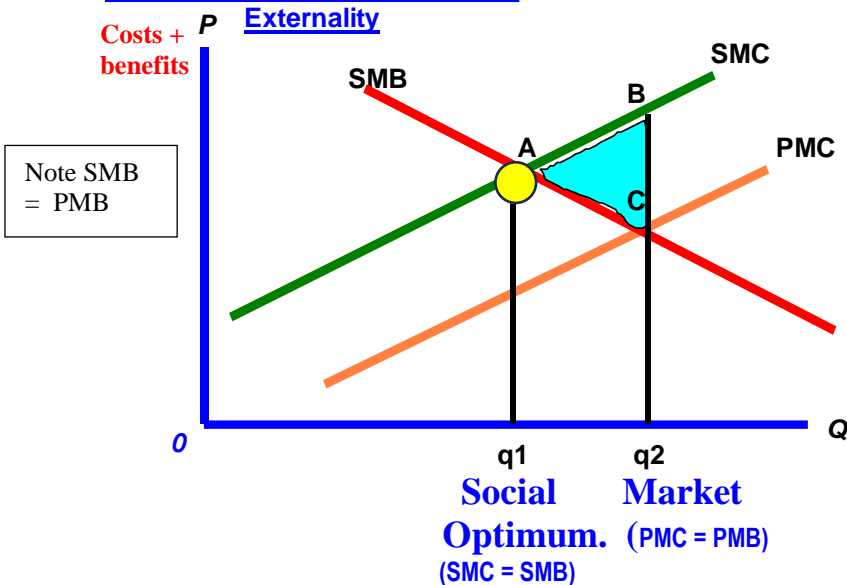
(4 uses of the MsB/MsC diagram) How to draw the diagram correctly? See the 'blue box' in webnote 224.

- ⊙ addressing market failure 2.4<sup>1</sup>: diagrams 1-4
- ⊙ 'overproduction' in Perfect Competition 2.2 (HL) – diagram 1
- ⊙ Macroeconomic statistics do not measure externalities 3.1
- ⊙ This diagram could also be used in conjunction with welfare economics / producer and consumer surplus. See webnote ED 2.
- ⊙ See webnote 252 for an explanation of welfare loss
- ⊙ To illustrate Poor resource allocation/ economic or resource efficiency

**Welfare loss**  
= a non optimal allocation of resources. This means that **MsB** is not equal to **MsC**

## Production externalities

Diagram 1: Negative Production Externality

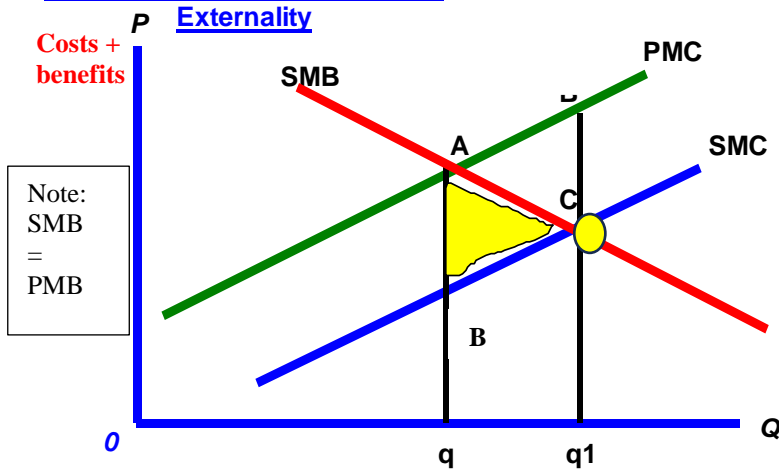


### Negative Externality of Production

COMMENT: DIAGRAM 1

- Q1 is the socially efficient level of output
- Market supplies q2
- **Overproduction** = area abc
- **Abc = welfare loss (cost > benefit)**
- This is a welfare loss or cost to society of the market failure. Examples are environmental pollution caused by industry that damage the environment and increase costs to society

Diagram 2: Positive Production Externality



### Positive Externality of Production

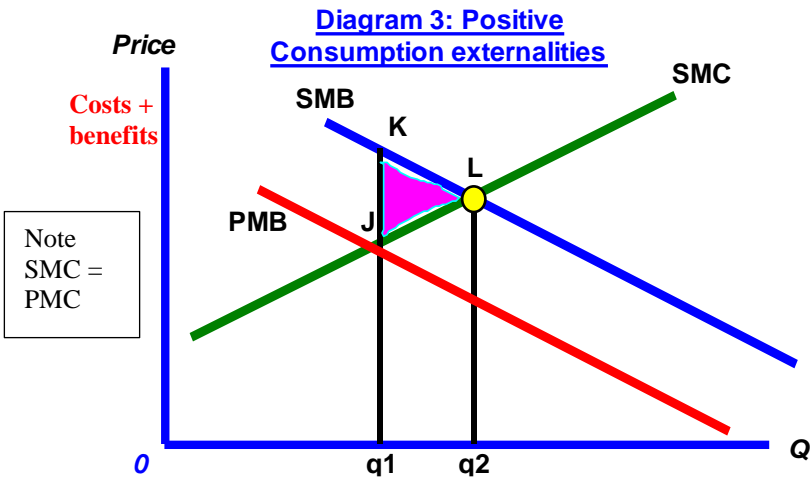
COMMENT: DIAGRAM 2

- Q1 is the socially efficient level of output
- Market supplies q
- **Underproduction** = area abc
- **Abc=welfare loss**
- This is a welfare loss to society of the market failure. (**benefit > cost**)
- Example would be a chemical plant installing a water purification system that benefits other local firms e.g. a local fish farm is not paying for cost of clean water

<sup>1</sup> For further reading see the article on page 6 of the Economic Review, April 2003 issue, Volume 20, number 4. Title is Externalities

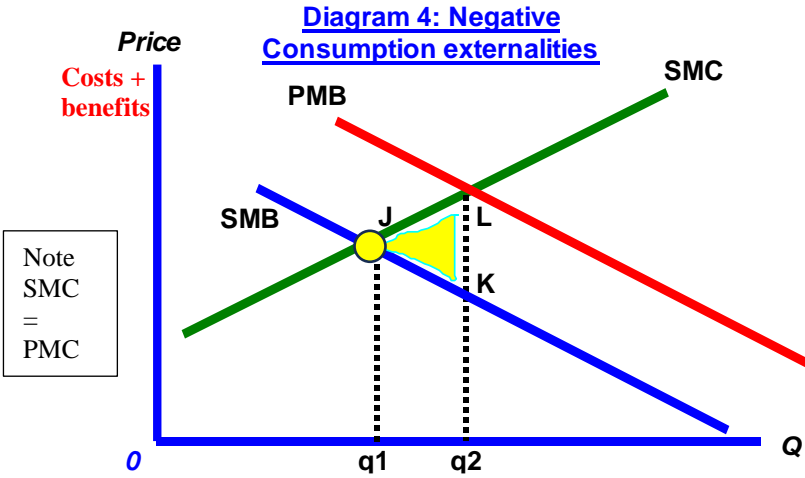
# 4 Diagrams you need for Externalities

## Consumption externalities



**COMMENT: DIAGRAM 3**

- Q2 is the socially efficient level of output
- Market only supplies q1
- **Underconsumption** = area of jkl
- **Jkl = welfare loss; (benefit > cost)**
- This is a welfare loss to society
- Could apply to education ( society benefits from educated individuals) and health care (avoiding an epidemic) in an LDC or to the construction of beautiful buildings that enhance the local environment



**COMMENT: DIAGRAM 4**

- Q1 is the socially efficient level of output
- community supplies q2
- **Overconsumption** = area of jkl
- **Jkl = welfare loss; (cost > benefit)**
- This is a welfare loss to society
- Example would be an individual listening to loud music that affects local neighbours
- Demerit goods e.g tobacco, drugs