

Syllabus Items: 34-41
See Webnote 507 for reading schedule

Items: HL only 39-41

1.4 Big Ideas



Key terms

1.4 - Market Failure

1. Market failure
2. Welfare loss
3. EU Emission Trading Scheme (EU ETS)
4. extending property rights
5. external benefit
6. external cost
7. marginal private costs (MPC)
8. marginal social costs (MSC)
9. market failure
10. merit goods
11. nationalization
12. negative externalities of consumption
13. negative externalities of production
14. positive externalities of consumption
15. positive externalities of production
16. privatization
17. public goods (non rivalrous / non excludable)
18. free rider problem
19. demerit goods
20. merit goods
21. tradable permits
22. regulator
23. common access resources
24. sustainability

HL

25. asymmetric information
26. monopoly

Key phrases to watch out for...

Syllabus phrases to watch out for:

1. public goods (non rivalrous / non excludable)
2. free rider problem
3. carbon taxes
4. 'cap and trade' scheme

For HL students should watch out for the following in relation to item 41 of the syllabus:

5. nationalization
6. trade liberalization

note: 5+6 are possible responses to monopoly and government could use options 5 and 6 to reduce the anti competitive nature of the monopoly.

The **BIG** ideas!

Exchange Rates: summary

WEBNOTE 140

I.b Syllabus 3.2: Macroeconomic Objectives: Exchange Rates

- **Syllabus 34 – 41 (39-41 = HL only)**
- **Webnotes 140 – 150**

Query

- ⦿ How do markets fail and what is the best combination of solutions in terms of intervention?

Syllabus reference: items 34 - 41

TYPES OF MARKET FAILURE

Market fails to allocate resources efficiently to the the best benefit of society:

- 1. Externalities**
- 2. Monopoly (HL)**
- 3. Public/merit goods**
- 4. Asymmetric information**
- 5. Immobility of factors of production (poor resource allocation)**

Msb and Msc

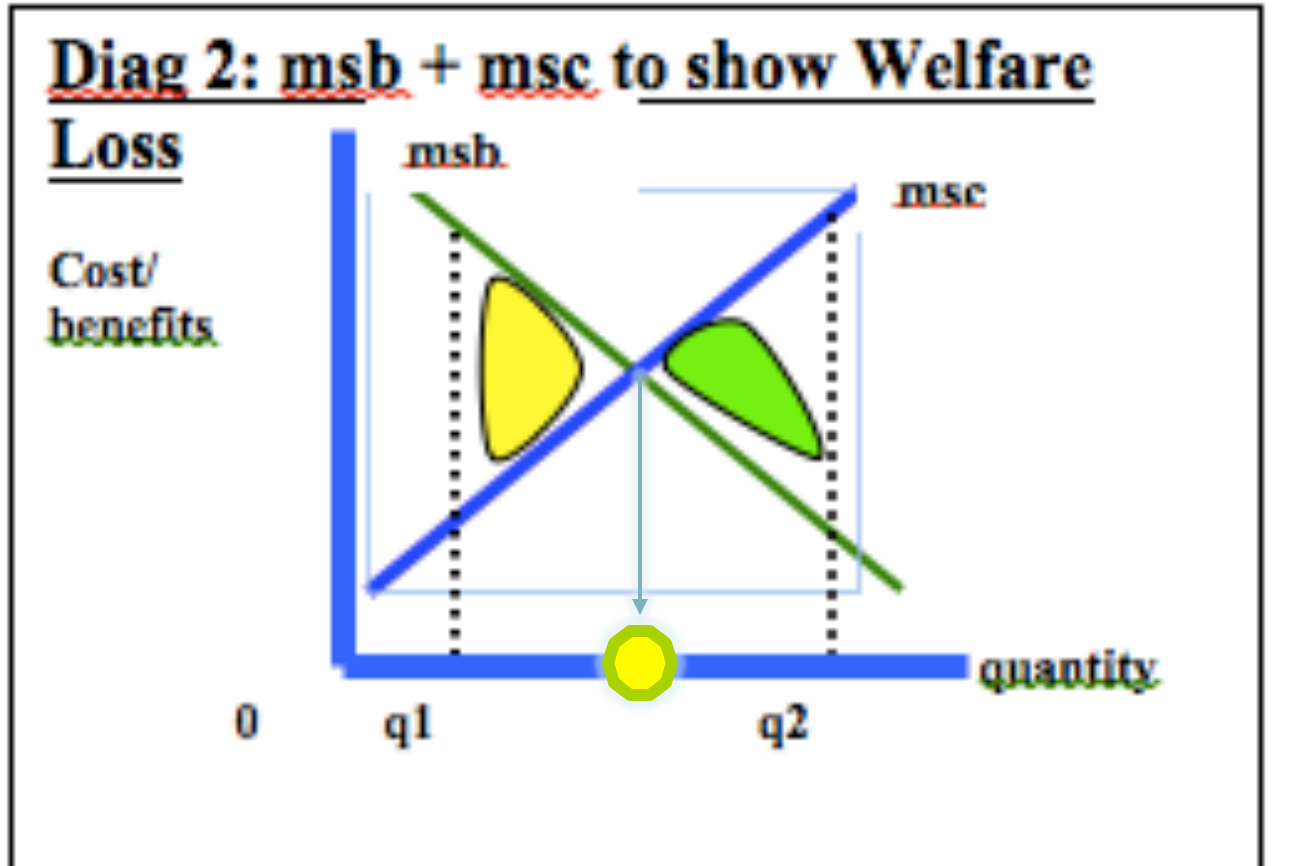
- ◎ marginal social cost represents the stakeholder society and shows the cost/ to society of the production of one additional unit of output
- ◎ marginal social benefit represents the stakeholder society and shows the benefit to society of the production of one additional unit of output

Big Idea

1

Welfare loss + gain = 'over' or 'under' the social optimum @

See Webnote 132



See Webnote 149

4 EXTERNALITIES: 2 PRODUCTION AND 2 CONSUMPTION

Syllabus reference: items 34 -41

See Webnote 143

See Webnote 143

4 externalities

Diagram 1: Negative Production Externality

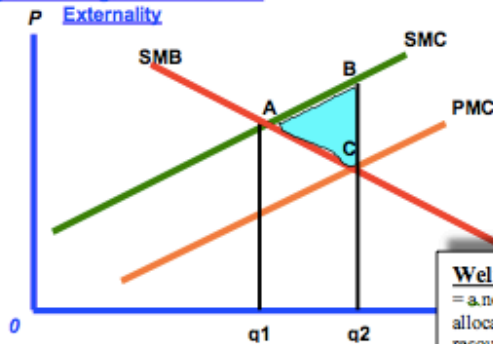
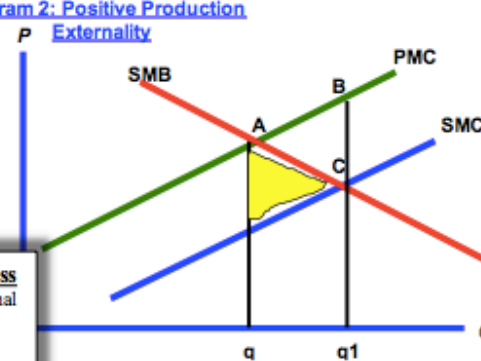


Diagram 2: Positive Production Externality



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

Diagram 4: Negative Consumption externalities

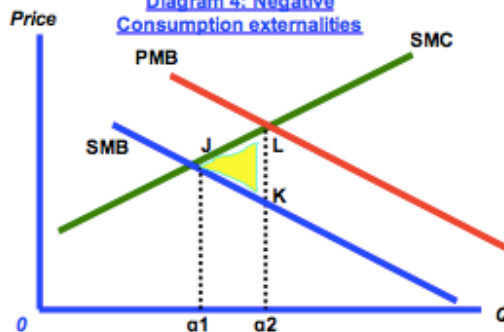
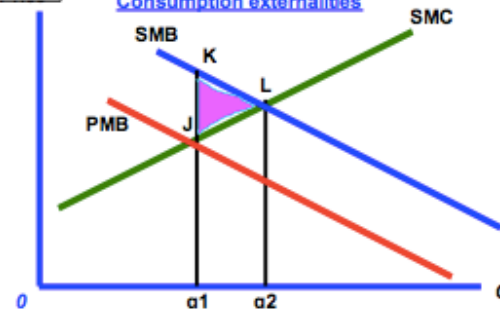


Diagram 3: Positive Consumption externalities



Know how to draw?

Use 'blue box'

4 Steps to remember to draw the diagrams for market failure?

1. Every time draw MsB + MsC. Social optimum is where these lines intersect. See black ● in diagrams 1+2.
2. Draw the welfare loss triangle as it will be easily seen as the angle between the two social lines. The third line then is drawn on one of the two remaining points of the triangle depending on whether it is a 'production' or a 'benefit' line.
3. Decide whether the third line is a benefit or cost line i.e. is the story about consumption/benefit (PMB) or production/cost (PMC)? See 4 below.
4. Draw the third line using the following guidelines:
 - Is it over / under consumption or production? "Over" is right of social optimum. Under is left.
 - Is it a under (e.g. merit) or over (e.g. demerit good)?
 - Does society want more or less of the consumption/production?
 - E.G. If government wants more consumption then the diagram should be diagram 2 below showing 'under-consumption' or positive externalities of consumption. Markets under consume health care e.g. public health vaccine to protect public health
 - Which triangle for welfare loss do you shade? It is always the Angle between S_mB and S_mC = welfare loss e.g. abc, see web 252
 - Practice this so your diagrams are **always correct!**

See
Webnote
141

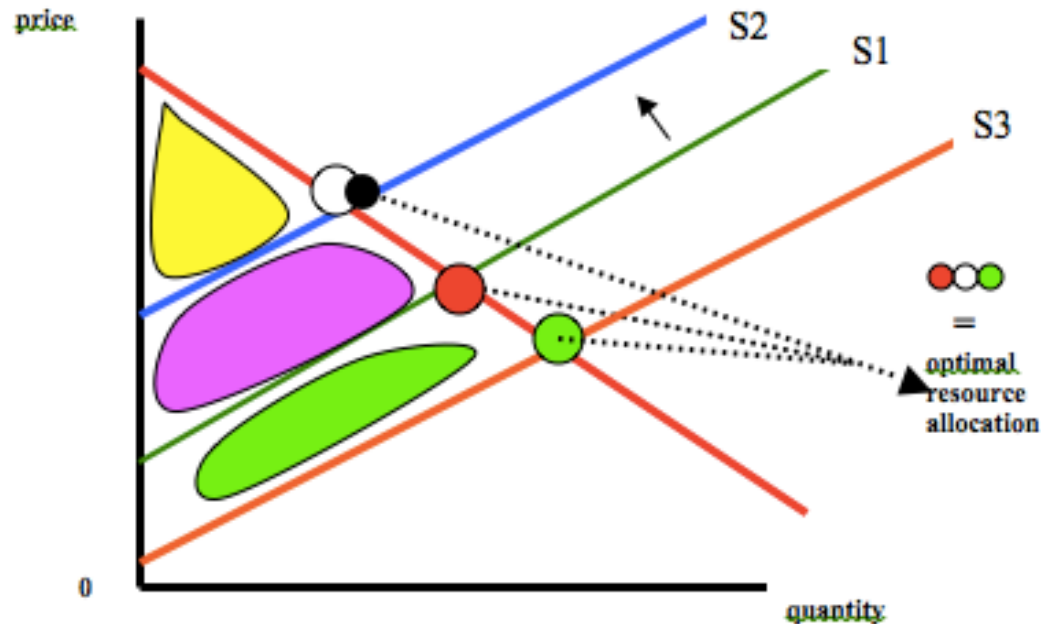
Big Idea

4

Long run...markets must grow so taxing the polluter must lead to changes in production techniques and a cleaner environment. Smaller markets means less community surplus

See
Webnote
149

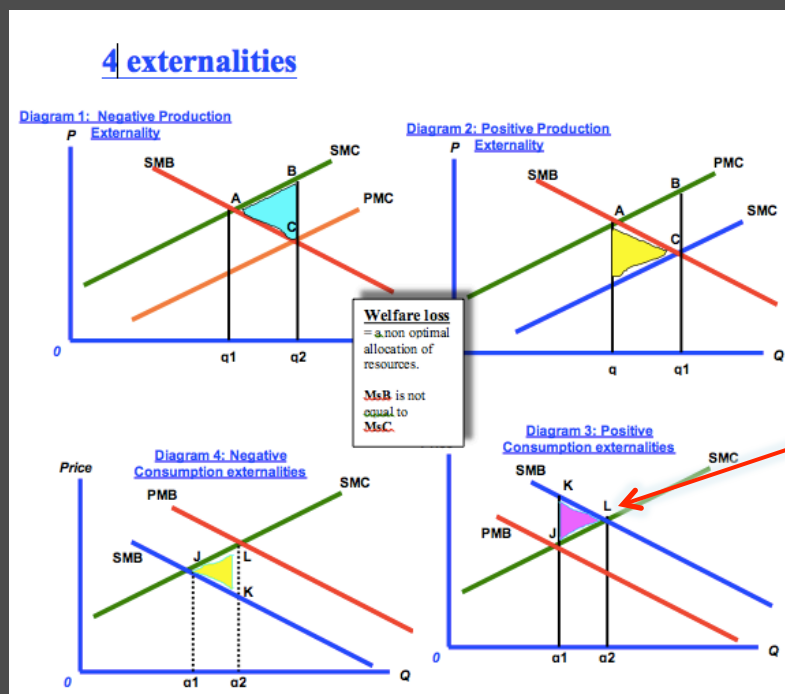
Diag 3: supply + demand to show consumer and producer surplus (society surplus = consumer+producer surplus)



In 1.4 be careful that your diagram analysis is 'expert'. Identify and exact point where your analysis commences

- When doing a diagram analysis let the reader know exactly where your analysis starts

In your answer...be sure to indicate where your analysis starts...



This analysis commences at point L (q_2) which represents "underconsumption" because $SMB > PMB$ and therefore represents market failure.

What are the key solutions to Market Failure ?you need to find some real world examples !

Solutions to market failure:	Do you have an example?
Government intervention	Indirect tax
Government intervention	Tradeable permit scheme. This one is notable because it is a market based solution. The firm has to buy the permit to pollute i.e. a quota or limit to the level of carbon emissions
Government intervention	Smoking ban, or a subsidy to alternative (clean) energy producers
Government intervention	International agreement e.g. Kyoto, Paris
Government intervention	Abuse of common access resources. See syllabus item 39 which has a special focus for HL students. Extending property rights e.g. restricting large scale fishing by large factory ships by setting 'no fishing zones.

Market Failure...Solutions

See Webnote 144

Evaluate solutions

The problems...

A) Fossil Fuel Pollution

1,2, 3, 4,6,(8 (clean energy substitutes), 9 (market based).

Do we want 'zero' pollution? If yes then we tax the polluter but to what extent? Is the product inelastic e.g. smoking?

B) Demerit good - tobacco

1,2,4,7

C) University education

1,7,8



Some solutions

1. Legislation (i)

2. Penalties (i)

3. International agreement (i)

4. taxation (i)

5. ban (i)

6. Extending property rights (i)

7. Advertising (i)

8. Subsidy (i)

9. Tradeable permits (m)

(i) = intervention/regulation

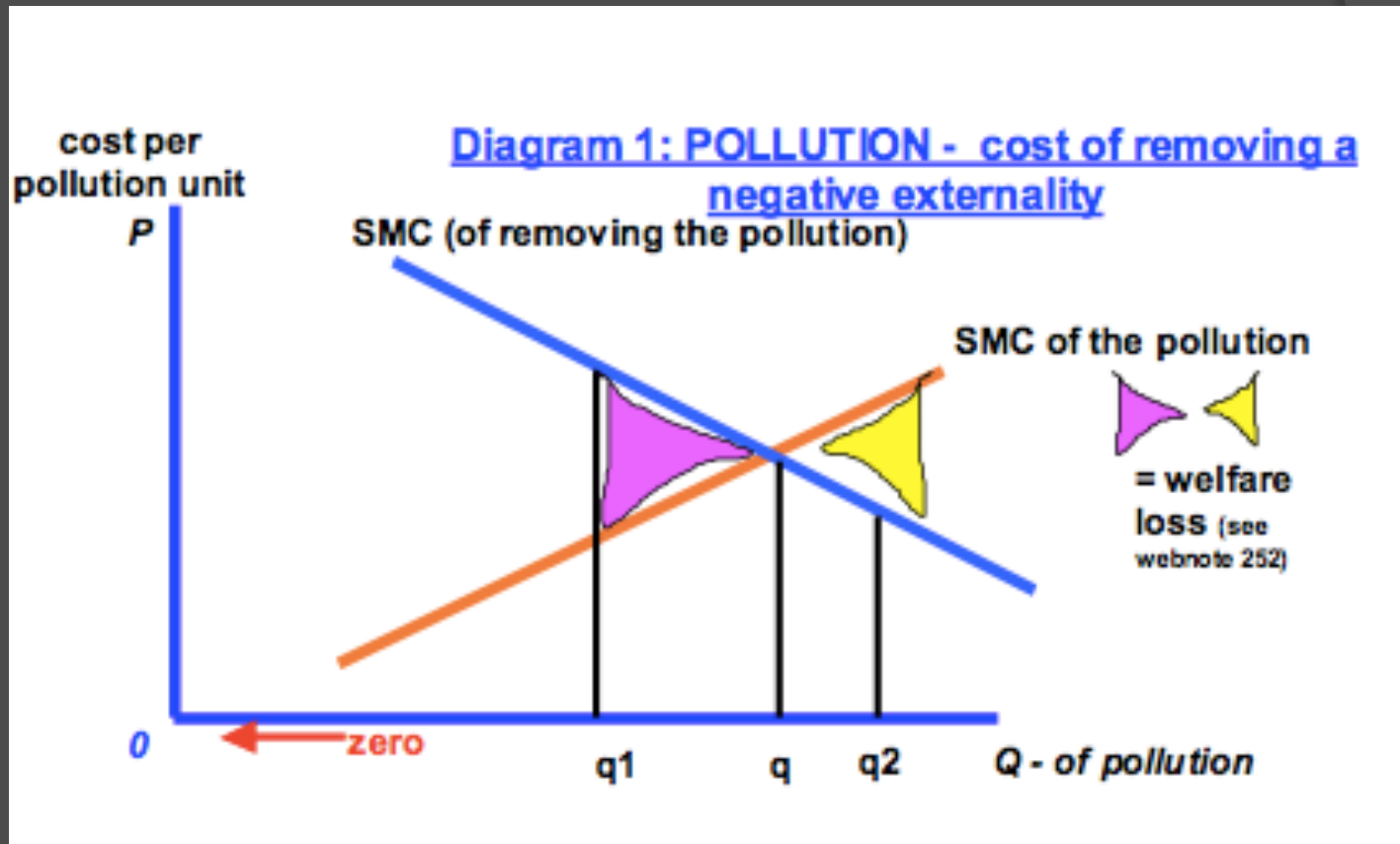
(m) = market solution

Big Idea

7

Does society want Zero pollution? Q1 in diagram says "NO".

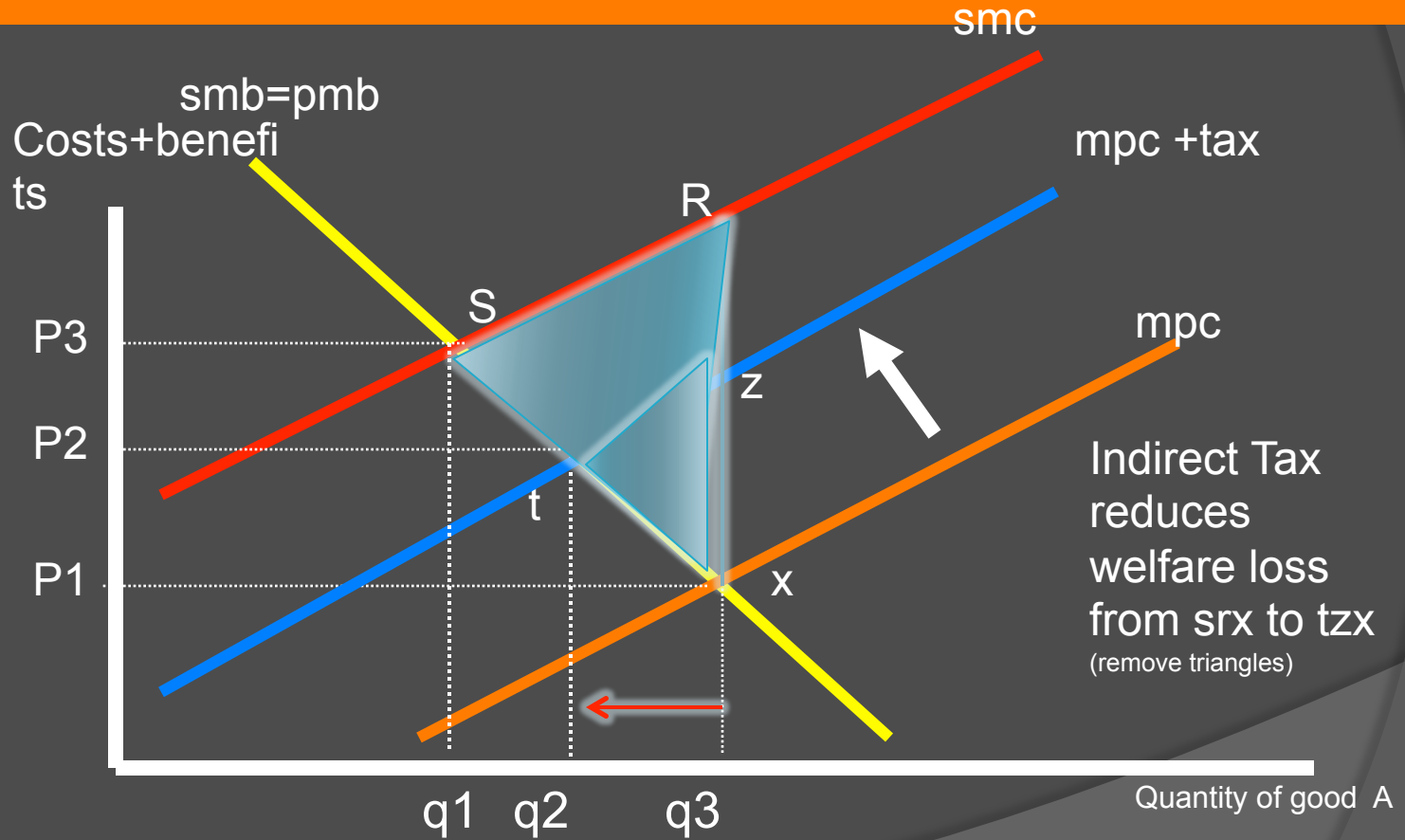
See
Webnote
144



Big Idea

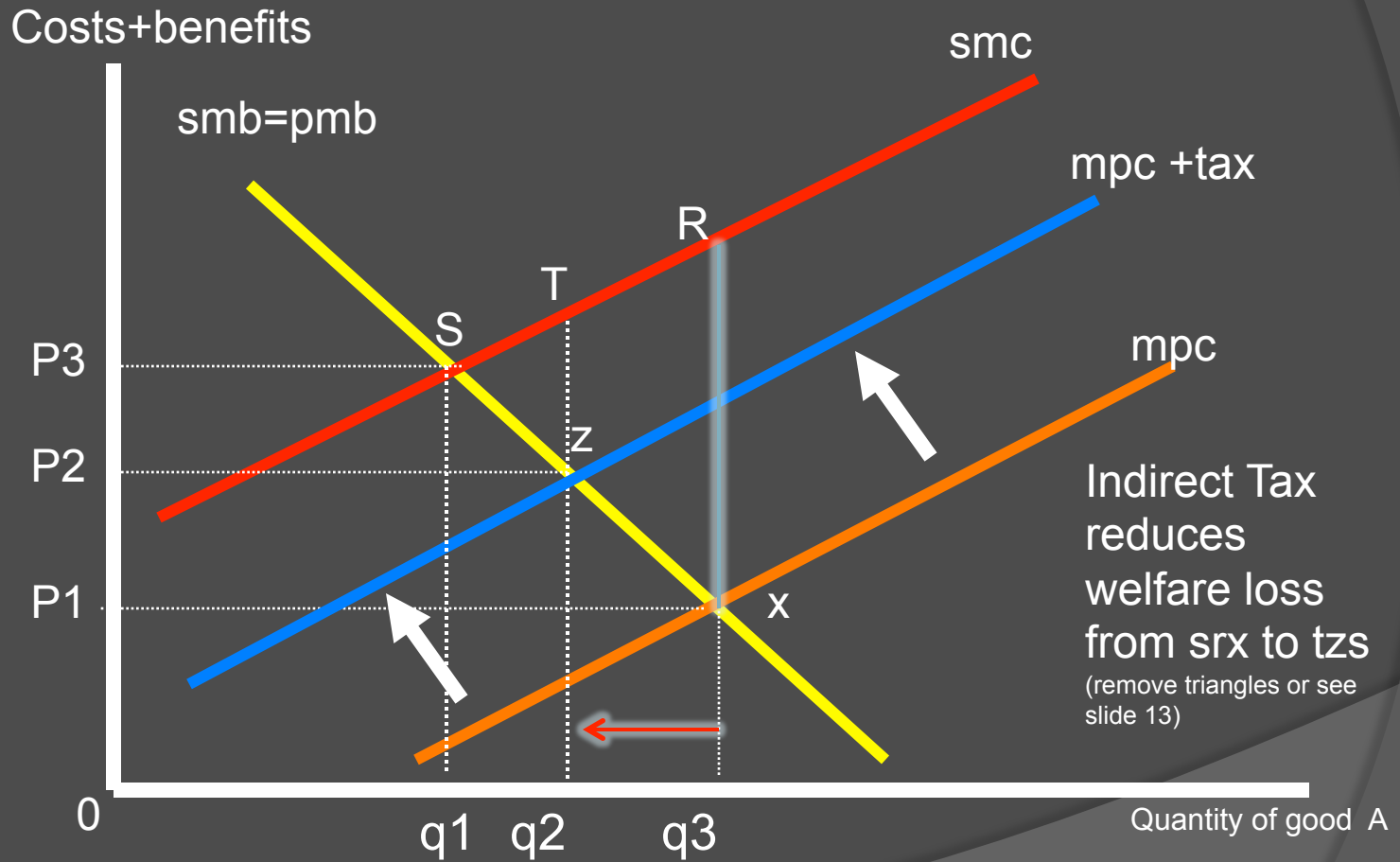
8

Show how to solve a negative externality of production using an indirect tax

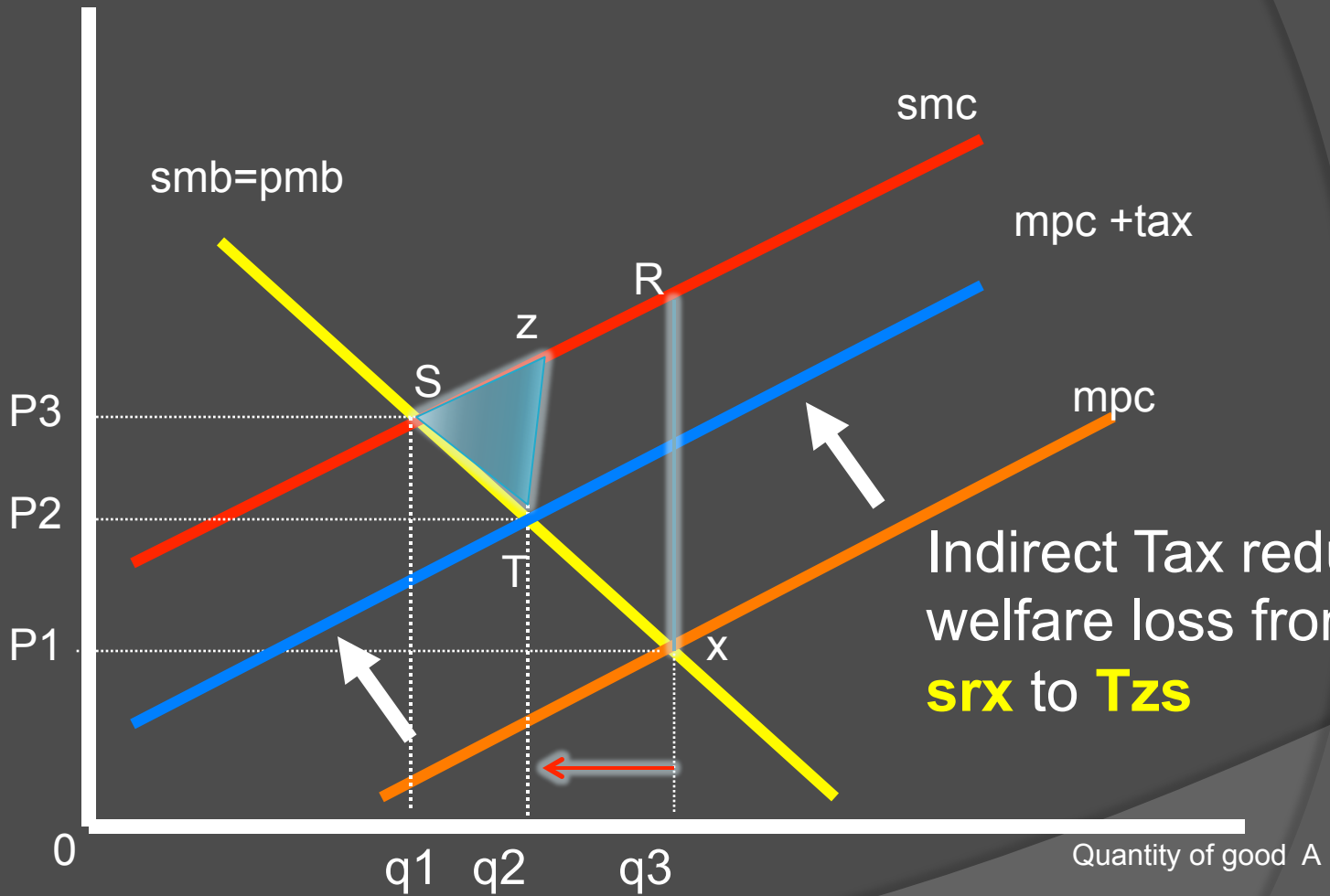


Webnote 140

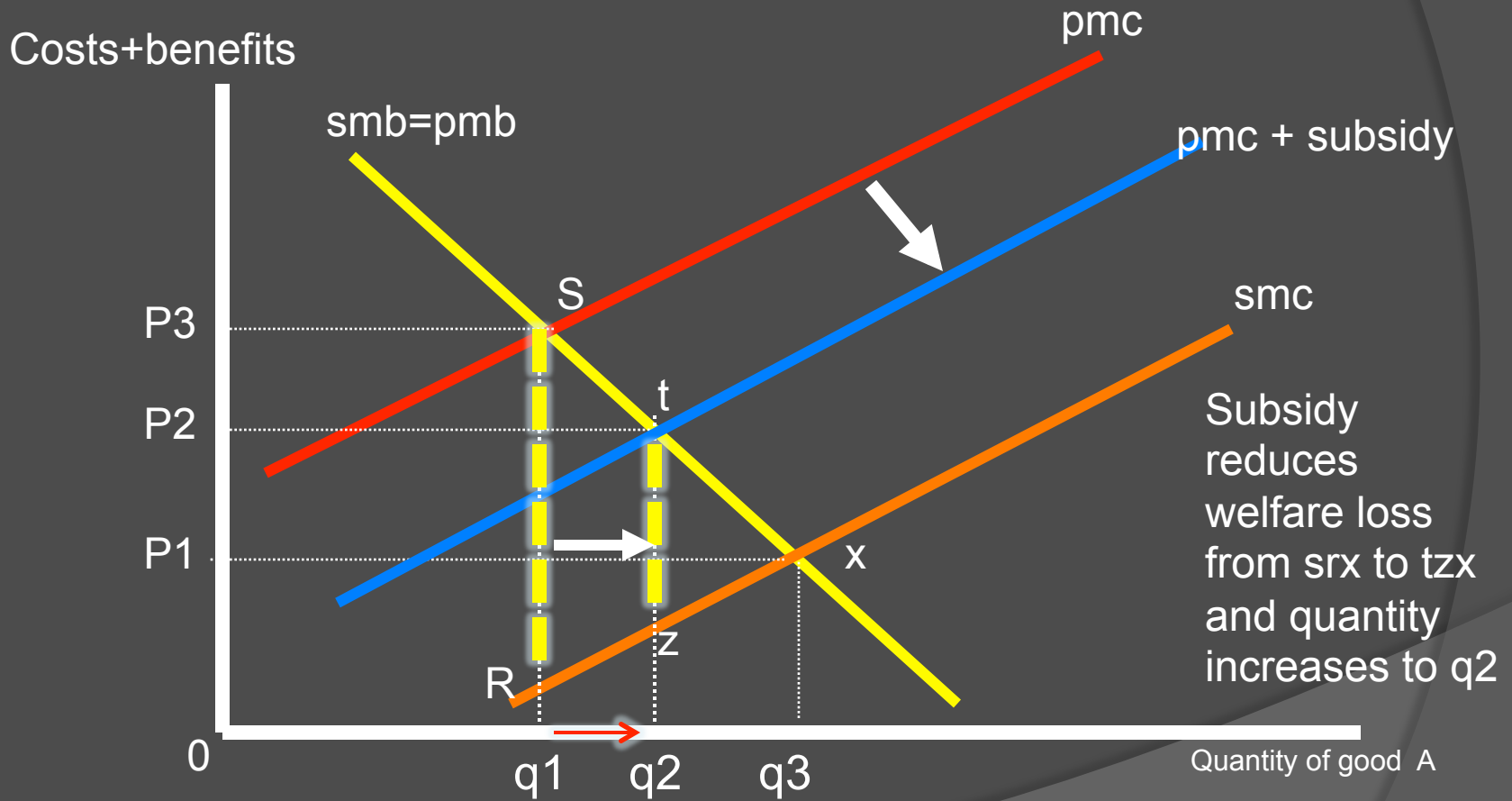
Pollution: solving a negative externality of production using an indirect tax



Costs+benefits



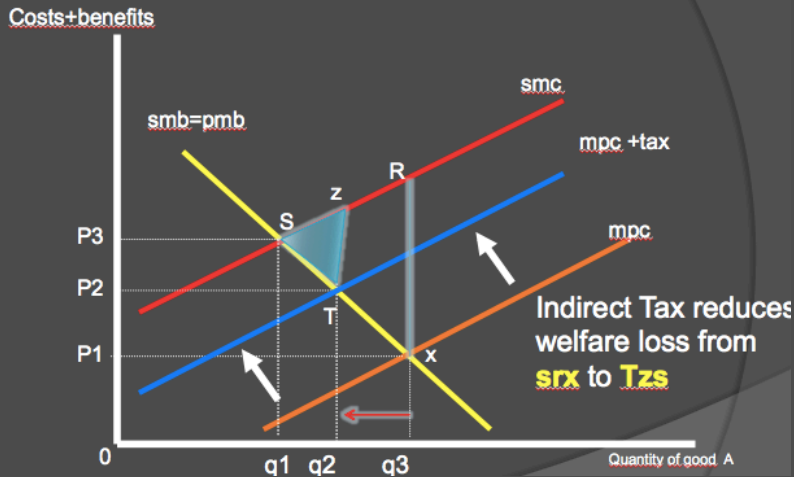
Show how to solve a positive externality of production using a subsidy



Understand how welfare loss is similar to deadweight loss. Welfare loss looks at change from point of view of society while deadweight loss looks at market perspective (impact on consumer + firm)

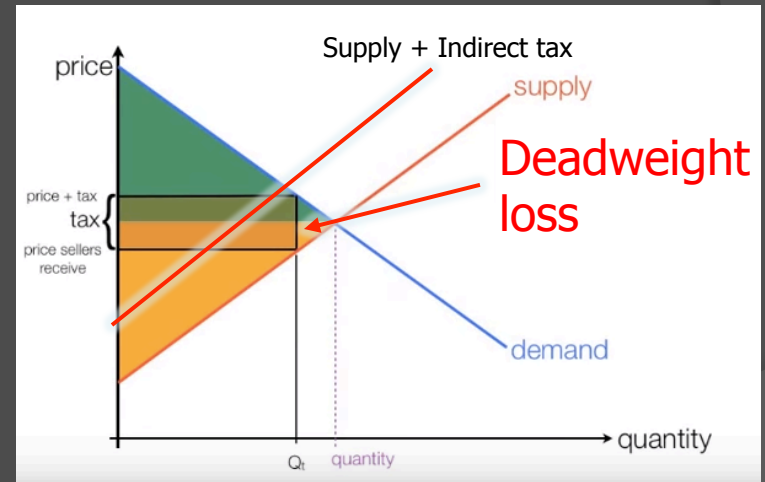
Welfare loss relates to society and the over or under production/ consumption of a good or service

Demerit good (tobacco)



Deadweight loss relates loss of production/consumption of a good or service due to an indirect tax i.e. market gets smaller

Normal good (luxury good, I phone)



In both cases market gets smaller but the language to describe the change is different. Loss in market size is acceptable for a demerit good but not for a 'normal' good

The Exam question...IBQ

See Webnote 145

May 2014 syllabus 1.2 HL

- **1a) Analyse the private and external benefits associated with the consumption of university education. (10 marks)**
- **1b) Evaluate the policies a government might use to increase the consumption of university education.(15 marks)**