

How to use an indirect tax and a subsidy to solve market failure?**3 Tasks: each student in the group must do the 3 tasks below-see page 2.****BOX A: Externalities diagrams**

1. Negative externalities of production – W 287
2. Negative externalities of consumption – W 287
3. Positive externalities of production – W 287
4. Positive externalities of consumption – W 287
5. Taxes and subsidies to solve market failure – W 289

Market Failure Solutions:**2 Diagrams for solving market failure (externalities):****1. indirect taxes + 2. Subsidies****(Students need to be able to apply an indirect tax or a subsidy to solve a market failure problem.)****Tutor Instructions (read these before the peer tutoring):****Follow instructions step by step. Take time to answer each question in each of the 3 tasks.****Task 1: (15 -20 minutes) Indirect tax + overproduction (Use diagram A) Over production**

1. Tutor asks which diagram can be used to solve a negative externality of production using an indirect tax? The negative externality is due to farm pollution e.g. factory chicken farming. (5 minutes)
2. Give students 5 minutes to review the **Four externalities** diagrams selecting which diagram they would use to answer the question in Task 1 above? Use Webnote 287 for this. (5 minutes)
3. **Assign all students to draw a diagram to show the farm pollution problem. This where an indirect tax provides a solution to 'welfare loss' caused by over-production of chicken farms in the UK. Students should label diagram expertly. Draw the diagram from memory. Draw diagram large enough for all members of group to see and understand. (5 minutes)**
4. Now show the students webnote **289-A** diagram showing how an indirect tax reduces the welfare loss – note that welfare loss is not completely removed. Make any corrections to their diagram.
5. Answer any Questions?

Task 2-Box A: (15-20 minutes) Indirect tax + overconsumption (Use diagram B) Overconsumption

1. Tutor asks if an indirect tax can also be used to solve **over-consumption** of alcohol in the UK? (5 minutes)
2. **Assign each student to show how an indirect tax can also be used to solve the problem of alcohol in the UK. This diagram shows the reduction of over- consumption. This reduces the welfare loss of alcohol consumption. Draw the diagram from memory. Draw diagram large enough for all members of group to see and understand. (5 minutes)**
3. Use the diagram **289-B** provided to show that indirect tax can be used to solve negative externality of consumption (5 minutes).

Task 3-Box B: (20 minutes) (Use diagram C) Underproduction

1. Tutor asks each how a subsidy can be used to increase underproduction of green energy? (5 minutes).
2. **Assign each student to show how a subsidy can be used to solve the problem of green energy?**
3. Use the diagram **289-C** provided to show that a subsidy can be used to solve positive externality of production (**under-production**) (5 minutes).

Task 4: (10 minutes) Group work

1. **Assign each student to make a connection between any of their diagrams and ONE key concept outlined in Box B (above). What key concept is worth mentioning in relation to the diagram you have drawn? (5 minutes).**
2. Group Question: If the market does not produce where $MSB = MSC$ is this allocative efficiency? **Yes or No?** Then **Why?** (5 minutes).
3. Any questions?

B: 9 Key Concepts: connect to your chosen diagram

1. scarcity,
2. choice,
3. efficiency,
4. equity,
5. economic well-being,
6. sustainability,
7. change, (long run vs short run)
8. interdependence,
9. intervention

How to use an indirect tax and a subsidy to solve market failure?**3 Tasks: each student in the group must do the 3 tasks below-see page 2.****Group Instructions:****Students need to be able to apply an****Task 1(Use diagram A):****Focus- Indirect + Negative Externality**

1. Ask students to draw an externality diagram to show damage caused to the river Wye in the UK as a result of farm pollution.
2. Tutor shows how an indirect tax can be used to solve this problem.
3. What is a relevant key concept here and briefly explain why? (see Box B above for key concepts)
4. Any questions?

Task 2. (Use diagram B) : Focus-Indirect tax + Externality

1. Ask students to draw an externality diagram to show damage caused by consumption of too much alcohol in the UK.
2. Tutor shows how an indirect tax can be used to solve this problem.
3. What is a relevant key concept here and briefly explain why? (see Box B above for key concepts)
4. Any questions

Task 3. (Use diagram C): Focus-Subsidy + Externality

1. Ask students to draw a diagram to show how a shortage of green energy can be solved by government intervention.
2. Tutor shows how subsidy can be used to solve this problem.
3. What is a relevant key concept here and briefly explain why? (see Box B above for key concepts)
4. Any questions?

Task 4: (10 minutes) Group work

1. Assign each student to make a connection between any of their diagrams and ONE key concept outlined in Box B (above). What key concept is worth mentioning in relation to the diagram you have drawn? (5 minutes).
2. Group Question: If the market does not produce where $MSB = MSC$ is this allocative efficiency? Yes or No? Then Why? (5 minutes).
3. Any questions?

B: 9 Key Concepts: connect to your chosen diagram

1. scarcity,
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