

**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

**2 Diagrams for solving market failure (externalities):**

**1. indirect taxes + 2. subsidies**

**Tutor Instructions:**

**Follow instructions step by step. Take time to answer each question in each of the 3 tasks.**

**Task 1: (15 -20 minutes)**

1. Start with a question: Tutor asks which diagram can be used to solve a negative externality of production using an indirect tax? (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 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. Make any corrections to their diagram. Any Questions?

**Task 2-Box A: (15-20 minutes)**

1. Tutor asks if an indirect tax can also be used to solve **over-consumption** of processed chicken from the same chicken farms in the UK? (5 minutes)
2. **Assign** each student to show how an indirect tax can also be used to reduce **over-consumption** and reduce the welfare loss of chicken consumption using complete labels. 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)**

1. Tutor asks each student to draw how a subsidy can be used to increase underproduction of green energy reducing the welfare loss: (5 minutes).
2. Use the diagram **289-C** provided to show that a subsidy can be used to solve positive externality of production (**under-production**) (5 minutes).
3. Tutor asks each student needs to be able to make a connection between their diagram 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).
4. Group Question: If the market does not produce where  $MSB = MSC$  is this allocative efficiency? **Yes or No?** Then **Why?** (5 minutes).

**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