Exercise walk-through

Externalities ▪ 6.2

eXercise

You must be able to

- define an **externality 外部性** as a cost or benefit on a third party
- distinguish a **negative externality 负外部性** from a **positive externality 正外部性**
- show how a negative externality causes **overproduction** and a positive one **underproduction**
- evaluate corrective policies: a **Pigouvian tax 庇古税**, a subsidy, and tradable permits

Method — Externalities

A **cost or benefit** that falls on a third party outside a market transaction.

- **Negative** (e.g. pollution): marginal social cost exceeds private cost → the market **overproduces**.
- **Positive** (e.g. vaccination): marginal social benefit exceeds private benefit → the market **underproduces**.

Either way there is a **deadweight loss** compared with the socially efficient outcome.

Method — Corrective policy

A **Pigouvian tax** on a negative externality, a **subsidy** for a positive one, or **tradable permits**.

Practice 2.1 ▪ 1 mark

Define an externality.

Solution 2.1

Worked steps

a cost or benefit that falls on a third party outside the transaction **B1**.

Practice 2.2 ▪ 1 mark

State whether a negative externality causes over- or under-production.

Solution 2.2

Method: Corrective policy

Worked steps

overproduction B1.

Practice 2.3 ▪ 1 mark

Name a policy to correct a negative externality.

Solution 2.3

Method: Corrective policy

Worked steps

a Pigouvian tax (or tradable permits) **B1**.

Exam-style 3.1 ▪ 1 mark

A negative externality causes the market to

A underproduce

B overproduce

C produce the efficient amount

D stop producing

Solution 3.1

- **A** underproduce
- **B** overproduce ✓
- **C** produce the efficient amount
- **D** stop producing

Worked steps

B.

Exam-style 3.2 ▪ 1 mark

A tax set equal to the external cost of a good is called a

A tariff

B Pigouvian tax

C subsidy

D quota

Solution 3.2

A tariff

B Pigouvian tax ✓

C subsidy

D quota

Worked steps

B.

Exam-style 3.3 ▪ 1 mark

A factory pollutes a river, harming nearby residents.
(a) Name the type of externality.
(b) State whether the market over- or under-produces.
(c) Name a corrective policy.

Solution 3.3

Method: Corrective policy

Worked steps

(a) a negative externality **B1**. (b) it overproduces **B1**. (c) a Pigouvian tax (or tradable permits) **B1**.