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## Answers

# Exam-style questions

## Questions on negative externalities

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This resource provides answers to the questions posed in the Exam-Style Questions column, in the February 2023 issue of ECONOMIC REVIEW.

### Question 1

Using data from Table 1, calculate the external cost per unit of output produced when output is 100,000 units. (2 marks)

#### Answer

External cost = Social cost – Private cost = £319,000 – £180,000 = £139,000

External cost per unit = £139,000/100,000 = £1.39

### Question 2

With the help of a diagram, explain how taxes can be used to reduce the market failure caused by industrial pollution. (9 marks)

#### Answer

Diagram showing an indirect tax on output (either ad valorem or unit tax) will shift the supply curve to the left — moving output level closer to the socially optimal level (where marginal social costs and marginal social benefits of production are more closely aligned).

Depending on the elasticity of the marginal social benefits curve, the tax may need to be significantly high to lead to a reduction in output.

## Question 3

To what extent can behavioural economics alone be used to correct all environmental market failures?  
(25 marks)

### *Answer*

Behavioural economics can help reduce environmental market failures as follows:

- Giving consumers more information about alternative choices.
- Making 'greener' options the default choice.
- Use of nudges to change consumer and business behaviour, e.g. loft insulation nudges, etc.

Traditional policies can reduce environmental market failure as follows:

- Taxes can act as a proxy for external cost and lead to reduction in pollution.
- Regulations can change methods of production or levels of output (and output of pollution).
- Education and information can lead to consumers opting to less 'damaging' output being the more popular choices.

Evaluation:

- Behavioural economics may not always be as effective as more traditional methods — may help but not eliminate the market failure.
- Governments can use a mix of traditional and behaviour policies.
- Consumers may be more influenced by behavioural policies.
- Businesses under pressure from shareholders may not respond to behavioural changes.
- Businesses are assumed profit maximisers and may not change behaviour.