

## READING PASSAGE 2

## The Lighthouse in the Argument

*Why a beam of light became one of economics' most contested examples*

- A** For more than a century, students opening an economics textbook have met the same homely illustration of a problem that markets are said to be unable to solve. A lighthouse, the argument runs, casts its beam across the sea for the benefit of every passing ship; no vessel can be prevented from seeing it, and one ship's use of the light in no way diminishes another's. A private owner, unable to charge the ships that benefit, could never recover the cost of building and tending such a structure. The conclusion seemed inescapable: if lighthouses are to exist at all, the state must provide them. Few examples in the discipline have been repeated so often or, as it later emerged, examined so little.
- B** The lighthouse owed its prominence to the theory of public goods. Economists distinguish ordinary commodities, which can be withheld from anyone unwilling to pay, from goods that are both *non-excludable* — impossible to deny to those who have not paid — and *non-rival*, meaning that one person's consumption leaves no less for everyone else. National defence is the standard case; so, it was argued, is the light of a coastal beacon. Where such goods are concerned, each individual has an incentive to enjoy the benefit while leaving others to bear the cost — the so-called free-rider problem. A succession of distinguished economists, from John Stuart Mill in the nineteenth century to Paul Samuelson in his mid-twentieth-century textbook, drew the same moral: provision must fall to government, since no profit-seeking individual would supply a service from which payment could not be extracted.
- C** In 1974 this comfortable consensus was disturbed by the economist Ronald Coase, who made a deceptively simple observation: the scholars who invoked the lighthouse had, almost without exception, neglected to ask how lighthouses had actually been provided. Turning to the history of England and Wales between the seventeenth and nineteenth centuries, Coase found that the supposedly impossible had in fact been commonplace. For long stretches of that period, lighthouses were built and operated not by the state but by private individuals, who ran them for profit.
- D** The mechanism that made this possible was the collection of charges known as light dues. An individual wishing to erect a lighthouse would petition the Crown for a patent — occasionally confirmed by an Act of Parliament — granting the right to build the light and to levy dues on the ships that benefited from it. The crucial detail, overlooked by the armchair theorists, was where the money was gathered. Rather than attempting to charge vessels at sea, where exclusion truly would have been impossible, the dues were collected in port by customs officers, calculated according to a ship's tonnage and the route it had sailed. A ship could decline to pay only by declining to make port — and so the free-rider problem, fatal in theory, was quietly solved in practice. Supervision of the system rested with Trinity House, a body descended from a medieval seamen's guild.
- E** The private arrangement did not endure. Across the nineteenth century the privately held lights were bought up and brought under the control of Trinity House, some of them changing hands for sums that would today amount to many millions. Yet Coase argued that this transfer should not be read as the failure of private provision. The pressure for it, he suggested, came not from any inability of the lights to pay their way but from shipping interests, who preferred that the cost of the service be shifted from the shipowners who used it onto taxpayers at large.

- F** Coase’s account was, in time, subjected to the same scrutiny he had applied to his predecessors. Later scholars accepted his central historical finding — that private individuals had indeed operated lighthouses — but questioned what it proved. The right to collect light dues, they pointed out, was no ordinary commercial bargain: it was a monopoly privilege granted by the Crown, and the dues themselves were compulsory, gathered by government officers rather than freely negotiated. Trinity House, though nominally a private corporation, was supervised by the state and held the sole authority to license new lights. On this reading, the “private” lighthouses had depended at every turn on a scaffolding of government-granted and government-enforced rights, and to call them a triumph of the free market was to claim more than the evidence would bear.
- G** What began as a tidy illustration thus ended as a tangle. The lasting interest of the episode lies less in lighthouses than in the caution it carries: that a convenient example, endlessly repeated, can harden into a fact that no one troubles to check, and that the line between public and private provision is seldom as sharp as a textbook requires it to be. The lighthouse, once the unanswerable case for government action, is today cited with equal confidence by those who argue the very opposite — which is perhaps the surest sign that the real lesson lies somewhere else entirely.

**TRUE / FALSE / NOT GIVEN**

**Questions 1–5.** Do the following statements agree with the information given in Reading Passage 2? Tick (✓) one box for each statement.

1. A public good is one from which people who refuse to pay can easily be excluded.  
 TRUE     FALSE     NOT GIVEN
2. Most economists who used the lighthouse example before 1974 had not researched how lighthouses were actually provided.  
 TRUE     FALSE     NOT GIVEN
3. The right to operate a lighthouse and collect dues was granted to private individuals by the Crown.  
 TRUE     FALSE     NOT GIVEN
4. Coase claimed that the private lighthouses were taken into public ownership because they had stopped making a profit.  
 TRUE     FALSE     NOT GIVEN
5. The first lighthouse in England was built by Trinity House.  
 TRUE     FALSE     NOT GIVEN

**MULTIPLE CHOICE**

**Questions 6–9.** Choose the correct letter, **A, B, C** or **D**.

6. According to paragraph B, what are the two defining features of a public good?
- A It is costly to produce and benefits only a few people
  - B It cannot be withheld from non-payers, and one person's use does not reduce its availability to others
  - C It is supplied by the government and paid for through taxation
  - D It can be sold for profit, but only by a single supplier
7. How was the free-rider problem avoided under the private lighthouse system?
- A Ships paid a fixed annual membership fee in advance
  - B The light was withheld from vessels that had not paid
  - C Dues were collected in port rather than at sea
  - D The government reimbursed lighthouse owners directly
8. Why, in Coase's view, were the private lighthouses eventually brought under public control?
- A Because they had proved unable to cover their costs
  - B Because Trinity House was legally obliged to run every lighthouse
  - C Because shipping interests wanted the cost transferred to taxpayers
  - D Because the lights had become unsafe and out of date
9. What did later scholars conclude about Coase's argument?
- A That his historical facts had largely been invented
  - B That the private lighthouses relied on government-granted and government-enforced rights, and so were not a pure free-market success
  - C That lighthouses should never have been operated privately
  - D That the free-rider problem had never really existed

**SENTENCE COMPLETION**

**Questions 10–11.** Complete the sentences below. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

10. The charges that funded the privately operated lighthouses were known as \_\_\_\_\_.
11. The sum a ship paid was calculated according to its \_\_\_\_\_ and the route it had sailed.

**MATCHING INFORMATION**

**Questions 12–14.** The reading passage has seven paragraphs, **A–G**. Which paragraph contains the following information? Write the correct letter, **A–G**.

12. A formal explanation of the two features that make certain goods difficult for markets to supply.  
\_\_\_\_\_
13. A claim that the shift to public ownership was driven by those who used the service rather than by any failure of the private model. \_\_\_\_\_
14. An explanation of how charges were collected so that ships were unable to avoid paying. \_\_\_\_\_

## ANSWER KEY

For teacher / self-study use. Fold or detach before distributing to students.

Q	ANSWER	PARA	EXPLANATION
1	<b>FALSE</b>	<b>B</b>	A public good is <i>non-excludable</i> — it cannot be withheld from non-payers. The statement reverses this.
2	<b>TRUE</b>	<b>C</b>	Coase observed that his predecessors had neglected to examine how lighthouses were actually provided.
3	<b>TRUE</b>	<b>D</b>	Individuals petitioned the Crown for a patent to build a light and levy dues.
4	<b>FALSE</b>	<b>E</b>	Coase argued the move was <i>not</i> caused by loss of profitability, but by shipping interests shifting costs onto taxpayers.
5	<b>NOT GIVEN</b>	<b>D</b>	Trinity House is mentioned, but the passage never states who built the first English lighthouse. (A prior-knowledge trap.)
6	<b>B</b>	<b>B</b>	Non-excludable + non-rival. Option C is the <i>conclusion</i> drawn about public goods, not their definition.
7	<b>C</b>	<b>D</b>	Dues were gathered in port. B is the intuitive answer, but the passage says exclusion at sea was impossible.
8	<b>C</b>	<b>E</b>	Coase attributed it to shipping interests, not to the lights' failure (A) — A is the tempting prior-knowledge choice.
9	<b>B</b>	<b>F</b>	Critics accepted his facts (so A is wrong) but argued the system rested on state-backed rights.
10	<b>light dues</b>	<b>D</b>	“charges known as light dues”.
11	<b>tonnage</b>	<b>D</b>	“according to a ship’s tonnage and the route it had sailed”.
12	<b>B</b>	<b>B</b>	The non-excludable / non-rival definition and the free-rider problem.
13	<b>E</b>	<b>E</b>	Nationalisation driven by shipping interests, per Coase.
14	<b>D</b>	<b>D</b>	Collection in port, so a ship could avoid paying only by not making port.

### APPROXIMATE IELTS BAND EQUIVALENCE (14 QUESTIONS)

SCORE	14	13	12	11	10–9	8–7	6–5	≤4
BAND	9.0	8.5	8.0	7.5	7.0–6.5	6.0–5.5	5.0	<5.0