

Exercise walk-through

6.3

Public and Private Goods

AP Microeconomics

Classify the service using both properties

Rivalry : does one person's use reduce availability to others?

Excludability : can non-payers be kept out?

Service	Rival?	Excludable?
Sandwich	Yes	Yes
Noncongested paid stream	No	Yes
Open-access ocean fish	Yes	No
Nonexcludable warning signal	No	No

A **private good** has both properties; a **public good** has neither. Public funding is a different question.

Why a valuable public project may lack finance

One neighbourhood warning project

Cost \$50. Three households value the single project at \$30, \$20 and \$10. Is the project worthwhile? Would one household want to pay the full cost alone?

Collective financing may provide a worthwhile project. Donations can sometimes work; “nobody ever pays” is not a definition of public goods.

Why a valuable public project may lack finance

One neighbourhood warning project

Cost \$50. Three households value the single project at \$30, \$20 and \$10. Is the project worthwhile? Would one household want to pay the full cost alone?

Total benefit is \$60, exceeding cost by \$10. Each household values it less than paying \$50 alone. Non-payers can enjoy the signal and **free-ride**.

Collective financing may provide a worthwhile project. Donations can sometimes work; “nobody ever pays” is not a definition of public goods.

Shared resources and free public services are different

Open-access fishing Common resources are rival and non-excludable. An extra catch can leave less stock for others. The **tragedy of the commons** is inefficient overuse under these incentives.

A publicly funded school place It uses limited classroom capacity, and access can be controlled. Government finance does not make the service non-rival and non-excludable.

Access rights, quotas and community rules can change common-resource incentives. Classification depends on the actual service and access rules.

Exercises 2.1-2.3

2.1 Define a public good.

[1]

2.2 State the free-rider problem.

[1]

2.3 Give one example of a common resource.

[1]

Exercises 2.1-2.3

2.1 Define a public good.

[1]

2.1

- a good that is non-rival and non-excludable
-

2.2 State the free-rider problem.

[1]

2.2

- people can enjoy a good without paying for it, so too little is provided
-

2.3 Give one example of a common resource.

[1]

2.3

- ocean fish stocks, a public grazing field, or clean air (any one)

Exercises 3.1-3.2

3.1 A public good is

[1]

☐

A rival and excludable

B non-rival and non-excludable

C rival and non-excludable

D non-rival and excludable

3.2 The tragedy of the commons is the

[1]

☐

A overuse of a common resource

B underuse of a club good

C free provision of a private good

D effect of a tax

Exercises 3.1-3.2

3.1 A public good is

[1]

☐

- A rival and excludable
- B non-rival and non-excludable
- C rival and non-excludable
- D non-rival and excludable

3.1 B

- non-rival and non-excludable.

3.2 The tragedy of the commons is the

[1]

☐

- A overuse of a common resource
- B underuse of a club good
- C free provision of a private good
- D effect of a tax

3.2 A

- overuse of a common resource.

Exercise 3.3 (a)

3.3 National defence protects everyone, and no one can be excluded from it.

(a) Name the type of good.

[1]

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(a) Name the type of good.

[1]

(a)

- a public good

Exercise 3.3 (b)

3.3 National defence protects everyone, and no one can be excluded from it.

(b) Name the problem that means markets underprovide it.

[1]

Exercise 3.3 (b)

3.3 National defence protects everyone, and no one can be excluded from it.

(b) Name the problem that means markets underprovide it.

[1]

(b)

- the free-rider problem

Exercise 3.3 (c)

3.3 National defence protects everyone, and no one can be excluded from it.

(c) State who typically provides it.

[1]

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(c) State who typically provides it.

[1]

(c)

- the government