PUBLIC GOODS

Market failure

When everyone wants to consume and no one wants to pay

No doubt you have occasionally considered tossing some coins into the hat of a talented street musician. After all, a busker will play for you (and everybody else for that matter), regardless of whether you decide to pay him or her anything. Right? Perhaps you reasoned, 'Why should I of all people give something? I'm still a student. The other passers-by can jolly well dig into their pockets instead…!' Even though you knew that the musician would eventually stop playing if everyone were to follow your logic, you decided not to throw anything into the hat, preferring to merge with the crowd of other onlookers who were quite happy to listen, smile and nod politely, but were unwilling to reach into their wallets. The next day you found that the street musician had gone – and your morning pick-me-up was no more. 'Pity,' you might have thought to yourself. 'If each of the onlookers had made just a small contribution, the musician might have stayed.' Nonetheless, after briefly entertaining this idea, you realised that coordinating and executing such a plan with perfect strangers would have been too tricky, so you dismissed it and went on your way.

Positive externalities

In economics, the offerings of street musicians are classified as public goods. Such goods typically have two defining characteristics. First, no one can be prevented from using or consuming them – people cannot be excluded from listening to street music, for example; economists call this 'non-excludability' (from consumption). Second, one person's use of a public good does not interfere with or reduce the amount available to be consumed by others; 'rivalry' (in consumption) does not enter the equation with public goods – a virtually unlimited number of people can listen to a street musician without impairing each others' experience. Public goods are thus said to produce 'positive externalities'. In cheering up the public without demanding compensation, the street musician has generated a positive externality.

Pure public goods

If public goods are non-excludable and non-rivalrous in all circumstances, they are classed as 'pure public goods'. These are rare. Public knowledge (e.g. Pythagoras's Theorem) is an example of a pure public good. Goods that fulfil most, but not all, of these criteria are classed as public goods. Street music, for instance, is a public good but not a pure public good: while theoretically nobody can be prevented from listening, in practice, once the audience exceeds a certain size, people in the back rows will have trouble hearing it.

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People who benefit from offerings such as street music but prefer to rely on the financial contributions of others are known as 'free riders'. While such behaviour is rational on an individual level, it may have contributed to the street musician's decision to stop playing at the site in question. If a public good is not offered in the required quantity due to a lack of financial incentives, economists speak of an 'undersupply '. The undersupply of public goods is an example of market failure.

Other types of goods

But when it comes to everyday goods (clothes, food, leisure items), there is no risk of undersupply; people are willing to pay something for such goods as only those who pay for them can enjoy their benefits. These kinds of goods, which are excludable and rivalrous, are known as in economics as 'private goods'. Then there is a category of goods known as 'common pool resources'; these should not be confused with public goods. Although common pool resources are similar to public goods in that they are non-excludable, they are different to the extent that they are rivalrous. Commonly cited examples include the world's fish stocks and congested public roads. With common pool resources the key risk is not undersupply but overuse.

Possible solutions

An undersupply of public goods can be alleviated in various ways; the approach chosen will depend on who benefits from the positive externality generated by the public good. For example, where a public good benefits a relatively small group of people, members can be pressured into making a contribution: once there is a consensus that everyone in the group should contribute, compliance or non-compliance can be managed via rewards or punishments. The expectation that everyone should contribute and the associated pressure stem from prevalent social norms.

Where the positive externality generated by a public good benefits society as a whole, punishing free riders or rewarding contributors is often ineffective or hard to enforce. Public goods from which the whole of society derives benefit are thus often financed by the state, which can raise the necessary funds through taxation. However, this only makes sense if the benefit of the public good exceeds the cost of state intervention.

Key points

A public good in the economic sense has two defining characteristics:
- Non-excludability, i.e. no one can be prevented from using or consuming it.
- Non-rivalry, i.e. one person's use of a public good does not reduce the amount available to be consumed by others.

Generally, we distinguish between the following types of economic goods:

	Rivalrous	**Non-rivalrous**
Excludable	Private goods	Club goods
Non-excludable	Common pool resources	Public goods

- Anyone generating a non-remunerated benefit for third parties is said to have generated a positive externality.
- People who enjoy such benefits without making any financial contribution are known as free riders.
- Public goods (and goods that produce positive externalities generally) tend to be undersupplied as the market cannot produce them in sufficient quantities due to prevailing incentives; this is an example of market failure.
- In groups, punishments or rewards can be used to solve an undersupply problem. At the level of society as a whole, government financing can be a solution.