

JARGON ALERT

Public Goods

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In the centuries before radar and GPS, lighthouses guided ships safely through dangerous waters. Today, they exist mostly as relics of the past, providing scenic backdrops for postcards and photos. But lighthouses have also fulfilled an important role in economics textbooks: illuminating the concept of public goods.

There are two qualities that set public goods apart from other goods. They are “nonrival,” meaning their use or consumption by one party does not inhibit their use or consumption by another, and they are “nonexcludable,” meaning that it is impossible (or too costly) to prevent any consumers from using them. In the case of lighthouses, one ship captain can make use of the light to avoid danger without inhibiting other captains from doing the same. Additionally, once a lighthouse is constructed, it is impossible to block any ship on the water from using its light. Other textbook examples of public goods include fireworks displays, national defense, and environmental quality.

Nonexcludability can create a “free rider” problem. Imagine there is an entrepreneur who wants to build a new lighthouse.

He knows the lighthouse provides a valuable service to ship captains, and he asks each captain to contribute to its construction. The captains want to see the lighthouse built, but they also know they can enjoy the benefits of the completed lighthouse whether or not they paid for it. This means they can choose to contribute nothing and hope to “free ride” on the generosity of others. But if enough of the captains think this way, then the entrepreneur will not raise sufficient funds, and the lighthouse won’t be built. This has led many economists to conclude that public goods represent a form of market failure that the government can correct by providing them through tax revenue.

Paul Samuelson, who provided the modern economics definition of public goods in a 1954 article, wrote in his seminal textbook: “A businessman could not build [a lighthouse] for a profit, since he cannot claim a price from each user. This certainly is the kind of activity that governments would naturally undertake.”

But in the decades that followed, economists began to challenge the assumption that public goods could only be provided by the public sector. In a 1974 paper, Ronald Coase investigated the history of lighthouses in England. He discovered that, contrary to common assumption, many of the lighthouses had been built and maintained by private

individuals. These individuals raised money for the lighthouses by collecting a fee from ship captains at ports. This is an example of what economists would later call “tying”; that is, lighthouse owners were able to tie the use of the public good (the lighthouse) with the use of another good for which private property rights are assigned (the port). Any captain who refused to pay for the lighthouses could easily be excluded from the port. Lighthouses in England continue to be funded the same way today.

Changes in technology can also make it viable to privately provide goods that once seemed nonexcludable. When TV debuted, it was seen as a public good. Anyone with a receiver in range of the signal could enjoy the broadcast, making it impossible to charge for TV and exclude

those who refused to pay. But as technology improved, private cable companies were able to exclude nonpayers by requiring proprietary cable boxes to descramble their signal.

Not all economists agree that public goods should be provided privately even if it is feasible to do so, however. Because such goods are also

nonrival, it is in theory costless to provide them to any number of consumers. In the case of TV broadcasts, Samuelson argued that it was not in the best interest of society to exclude any individuals from watching programs, since doing so would only diminish society’s overall happiness.

But other economists countered that providing public goods always entails costs. Economist Jora Minasian argued in a 1964 article that TV broadcasters must determine which programs to provide with finite resources. Making that choice efficiently requires some sort of market pricing system to determine the programs that will generate the most utility for viewers. Minasian concluded that “the theory of public goods is of little help in distinguishing those goods that are best provided via community action from those that should be left to individual decisions and preferences.”

Research conducted by Coase, Minasian, and many others during the 1960s and 1970s revealed that there were in fact fewer examples of truly public goods than economists initially thought. Rather, the public or private provision of any good involves costs and benefits, and it may not always be immediately clear which solution results in the best outcome. Additionally, those tradeoffs can change over time as technology improves.



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