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TOPIC 15: TYPES OF GOODS

I. Definitions
   a. There are lots and lots of different types of goods. We'll be investigating a few of them based on two dimensions: excludability and rivalry.

	Rivalrous	*Non-rivalrous*
Excludable	Private goods • onions • pants • congested toll roads	Club goods • country club • satellite radio • uncongested toll roads
Non-excludable	Commons • ocean fish • river water in the desert • congested nontoll roads	Public goods • national defense • AM/FM radio • uncongested nontoll roads

   b. Excludability describes how easy it is to prevent people from using the good without permission. Some goods are harder than others to exclude users but typically we simplify this by having two categories: excludable and non-excludable.
      i. That said, excludability is really a spectrum. Sometimes it's very costly to exclude users and sometimes it's very cheap. A categorial approach is a nice starting point for introducing this concept but if you want a fuller picture, think in terms of a spectrum. A challenge in this, and many other areas, is that reality is incremental but language is categorical.
   c. Rivalry describes how much worse the good becomes when you add another user. Are consumers rivals or not? Satellites are non-rivalrous. When you use GPS to get directions, that doesn't interfere with my ability to use GPS.
      i. Rivalry is also a spectrum. One more car on a nearly empty road doesn't hurt anyone else but one more car on a crowded road does. But, again for simplicity, we might think in terms of categories. Under ordinary circumstances, is the marginal cost of adding an additional user at or near zero? If so, it's non-rivalrous.
   d. While categories are useful for simplicity, a more sophisticated and full approach treats them as a spectrum. You can, if you want, ditch

the table for a scatterplot, as Randall Holcombe did for his *Public Sector Economics*:

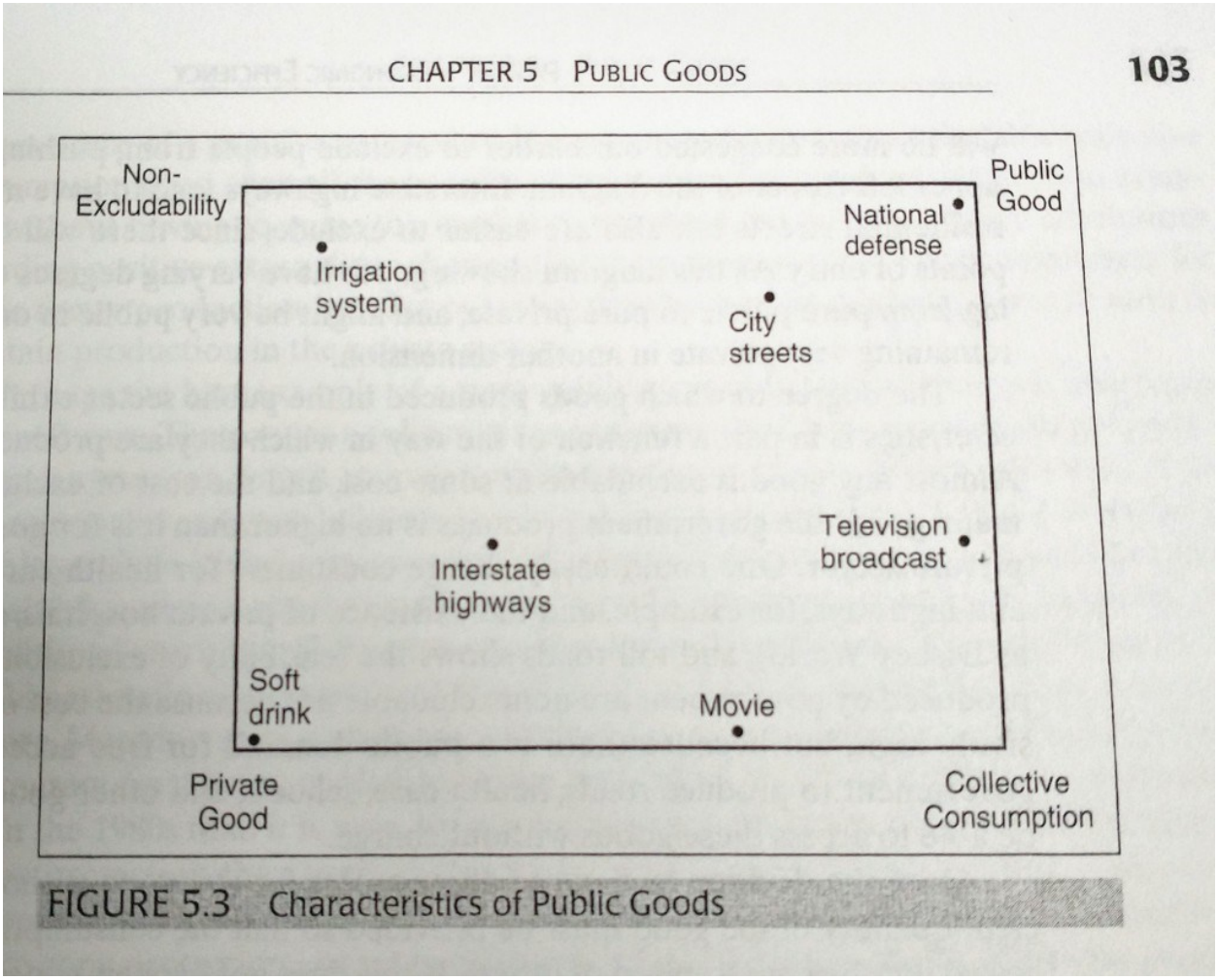

FIGURE 5.3 Characteristics of Public Goods

II. Private Goods
   a. These are typical goods. Food, clothing, furniture, books, etc. Much of this course focuses on private goods so there's no need to talk about them much here.

III. Public Goods
   a. People often invoke the phrase "public good" when making an argument for the government support of various programs—health care, museums, and so forth.
   b. There is, however, a very precise definition of public goods in economics. Public goods are *non-rivalrous* **and** *non-excludable*.
   c. National defense, attractive buildings, the light from a lighthouse, police patrols, and so forth are examples. In each case, the costs of exclusion are prohibitive and the marginal cost of adding an additional user is zero.

        i. Note that some things people call public goods—such as education and health care—don't fulfill either criterion.
    d. Because of their nature, public goods often suffer from *free riders*—people who don't contribute to make the good but still consume it. If the Department of Defense just *asked* the American people to send them a check, most won't do it. They will free ride off of other people's contributions. Thus public goods often have to be provided by the government.
        i. But they don't always! FM radio is a classic example of a public good yet most radio is privately provided because it's funded by advertising. Be careful about oversimplifying the inventiveness of people who have an incentive to solve these problems.

IV. A production game

V. The Tragedy of the Commons
    a. A *commons* is a good that everyone has the right to use.
    b. The *tragedy of the commons* arises when free access leads to overexploitation, dooming the resource.
    c. Nobody has a vested interest in protecting what's there because such work will subsidize everyone else.
    d. Everybody has a vested interest in taking as much as they can because the costs of doing so are burdened by everyone.
    e. There are many examples: pollution (water, air, soil); public parks (litter and general decay); clear cutting of forests; elephants and other presumably protected wildlife.
    f. At the same time, it's not so simple! Sometimes, the survival of a community depends on proper governorship of these common resources so people develop institutional arrangements to mitigate these problems. Elinor Ostrom's *Governing the Commons* discusses the clever ways people work around these problems in great detail, and earned her a Nobel Prize in 2009.

VI. Club Goods
    a. These are goods where efficiency suggests everyone should use them (because the marginal cost of an additional user is at or near zero) but it's very practical to exclude people.
    b. Because it's practical to exclude people and easy to serve people, a lot of firms use it in their business strategy.
        i. Video games, swimming pools, digital music, and subscription services are examples.

    ii. Club goods that are “congestible”, like swimming pools, are best served when the number of users is carefully managed. If a lot of people want to buy a product, a congestible club good—like a gym membership—is more likely to increase prices.
c. Sometimes these goods benefit from a *network effect*—when the value of the good increases as the number of users increases.
    i. Imagine only two people used email. Getting an email address wouldn’t be that beneficial because you could only contact two people. As more people get email, the benefits to having an email address grow as there’s a greater network to contact.
    ii. Language is another example, which is why English is a common second language and other languages are dying out.
    iii. This effect encourages monopoly. Facebook is used because so many people are on it. If you try to create a competitor (Google+), you’ll have a hard time breaking into the market.