Learning Objectives

Upon completion of this unit, students should be able to:

1. Contrast the positive and negative externalities and how they can prevent efficiency from being obtained.
2. Analyze how the use of corrective taxes (subsidies) can be used to correct for negative externalities.
3. Analyze the relationship between property rights and resource use, as well as the internalization of externalities, including pollution.
4. Determine what conditions need to be presented for efficient output and why.
5. Compare the characteristics of the Lindahl equilibrium to the cooperative methods of supplying pure public goods.
6. Explain the importance of the median voter, the characteristics of political equilibrium for a single public good under the majority rule, and the results of the cycling of outcomes.
7. Assess the roles of political parties and special interest groups that impact the political process.

Written Lecture

Chapter 3 introduces you to the important concept of an externality. Externalities are defined simply as costs or benefits of market transactions not reflected in actual prices. This definition brings attention to market failures (inefficiencies) when externalities (both positive and negative) are present. Chapter 3 will provide you with an understanding of why markets fail to achieve efficiency when externalities exist. A few extended examples are provided to show you how prices fail to reflect marginal social benefit or marginal social cost when positive or negative externalities exist in competitive markets.

Chapter 3 also discusses the alternative means of internalizing externalities to achieve efficiency. Externalities are internalized when marginal private cost (or marginal private benefit) is adjusted so that resource users consider the actual marginal “social cost” (or marginal social benefit) of their actions when making decisions. Social costs include externalities. The textbook considers corrective taxes (or subsidies), emissions standards, and property rights assignment (the Coase theorem) as alternative means of internalizing externalities. The advantages and disadvantages of each approach are highlighted in the reading. The discussion is often very pragmatic, considering the transactions costs and data requirements for implementing each scheme, which makes it difficult to truly implement a price/cost system that effectively includes all externalities.

Chapter 4 discusses the properties of public goods. The concept of a pure public good is developed and contrasted with the concept of a pure private good. Many examples are given to help you understand the important differences between these two types of goods. In addition, Chapter 4 presents the important distinction between the demand curves for pure public goods and pure private goods.
goods. Throughout Chapter 4, the theory of externalities is applied to emphasize the fact that market provision of pure public goods is unlikely to be efficient. Intermediate cases between pure public goods and pure private goods are also analyzed. Congestible public goods and price-excludable public goods are explicitly considered along with many examples of other intermediate cases. The goal here is to make you aware of the fact that it is difficult to generalize about actual arrangements used to provide public goods.

An important goal of Chapter 4 is to derive the efficiency conditions for a pure public good. The external benefit associated with the provision of pure public goods is emphasized in this chapter. In this way, you can see that consumption of a unit of a pure public good by any one person results in external benefits to all others. A pure public good, therefore, requires the annual output up to the point at which the sum of the marginal benefits of all consumers equals the marginal costs of making the good available. The sum of the individual marginal benefits is the marginal social benefit of each unit of the pure public good.

An extended numerical example dealing with the provision of security protection in a small community is used to derive the efficiency conditions and to illustrate the Lindahl equilibrium. The model of cooperative supply for a pure public good shows you how the efficient output of a pure public good could be provided in a small community without government. It sets the stage for analysis of the free-rider problem and provides a basis for understanding why government supply with compulsory taxation emerges in large groups.

A free rider is someone who enjoys the benefits of goods without contributing to the cost. An example of a free rider would be MADD, Mothers Against Drunk Drivers. In the early 1980s, MADD proposed a legislation to change the drinking age from 19 to 21. By them pushing to change the drinking age, everyone benefits from the law changing.

If the marginal cost of a pure public good increases as more is purchased by a community, the Lindahl equilibrium holds that a resulting budget surplus will occur at the efficient annual output of the pure public good. The Lindahl equilibrium states that "the voluntary contribution per unit of the public good of each member of the community equals her marginal benefit of the public good at the efficient level of output" (Hyman, 2011, pp. 164-165).

It consists of an agreement on the division of the costs of producing the equilibrium quantity of a pure public good. In equilibrium, every person is paying his/her share at an agreed upon cost that is still equal to his/her marginal benefit for the public good. As the marginal cost of the public good increases, more people would be making contributions to pay for the marginal cost, resulting in an increase in revenues. If the increase in revenue is more than an increase in the cost of the public good, then a budget surplus will result.

Public choice theory and economic analysis of the political process are the subjects of Chapter 5. The concept of political equilibrium is introduced as a way of comparing market equilibrium with public sector equilibrium. Positive analysis is used to predict the outcome of political interaction under majority rule, while normative analysis is used to explore efficiency aspects of political interaction. At the outset of Chapter 5, you will learn about the simplifying assumptions. The dependent variable is the output of a pure public good over a given time period. It is also assumed that each voter knows his/her share of the cost per unit of the public good. These simplifications allow the determination of the conditions required for political equilibrium.
A major goal of Chapter 5 is to make clear the differences between political and market equilibrium. To do so, an analogy is made between the tax shares \( t \) of citizens for public goods and the prices of market goods. It is then a simple matter to point out that a person’s most-preferred political outcome corresponds to the output for which Marginal Benefit (MB) = \( t \). The political equilibrium itself depends on the public choice rule, information available to voters, the distribution of tax shares among voters, and the distribution of benefits of the public good among voters.

The median voter model is emphasized in Chapter 5, and its implications for the behavior of political candidates are highlighted. The possibility that political equilibrium is nonexistent due to multiple-peaked preferences is also explored. There is a discussion of the likelihood of multiple-peaked preferences and Arrow’s impossibility theorem.

Chapter 5 integrates important issues concerning the political process with the theory of public choice. These issues include (1) incentives to vote and the impact of nonvoting on political equilibrium, (2) political externalities and political transactions costs, (3) logrolling, and (4) the impact of special interest groups and bureaucracy on political equilibrium. The logrolling model shows how vote trading and the pairing of issues on the ballot can lead to losses in efficiency.

When discussing the trade of goods and services, there are other costs other than money price that impact transactions. For example, under discussion is a situation where the military bureaucracy, in attempt to maximize the size of its budget, misinforms Congress regarding the total costs it incurs as it produces military hardware, underestimating the costs, and Congress accepts the estimates as true. This process causes a loss in efficiency, including the efficient output of hardware and the output design, and finally, this process leaves Congress unable to create an efficient program (Hyman, 2008, p. 213).

When the military bureaucracy does not report the true and actual cost to Congress, it performs this way in attempt to increase its associated power with having a larger budget. Basically, the military bureaucracy is suggesting that with more dollars (a bigger budget), it can produce even more hardware. If the actual social benefit from the costs that Congress believed were true it would create an equilibrium with total social benefit equal to total social cost \( (TSC = TSB) \). However, the military bureaucracy is attempting to grab more dollars from Congress in attempt to increase the total social benefit, which it believes will increase the total social cost. When this happens, the total social benefit is appropriated to the military budget. If Congress is not paying attention or cannot get accurate performance from the military bureaucracy, it will appropriate dollars, thus decreasing the benefit to some other program.

Should Congress increase the military budget based on false cost reporting, it will indelibly decrease the benefit to some other program.

References
