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GOVERNMENT REVENUES AND EXPENDITURES IN THE UNITED STATES ECONOMY

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CHAPTER 6

THE ECONOMIC ROLE OF THE STATE

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THE ECONOMIC ROLE OF THE STATE

Chapter 2 illustrated that under ideal circumstances, the market will allocate resources efficiently. The previous three chapters have illustrated some less-than-ideal circumstances that might lead to inefficient allocation of resources by the market. This suggests that the government might intervene to improve resource allocation in imperfect markets. The government can tax or regulate externalities, produce public goods, and define and enforce property rights. One might also question whether the distribution of income is fair or whether citizens of a nation might want the government to undertake activities to help out those who are less fortunate. Furthermore, in a macroeconomic context, the government might have a role to play in stabilizing the economy. This early in the book, it is premature to decide what the economic role of the state should be, but some areas in which government activity might be beneficial have been identified. This chapter will look at areas in which the government might become involved in the economy to develop a framework for further analysis.

For a market economy to function at all, property rights must be defined and protected. Thus, the first role for the government is protection of individual rights. Where there are severe problems with externalities or public goods, there may be a role for government production of goods and services. Public production is the second role of government. Sometimes the government might be able to increase the efficiency of markets without directly getting involved in production, by regulating the activities of market participants. Regulation is the third role of government. If the government becomes involved in helping those less fortunate in society, or providing a safety net for those who cannot care for themselves, then redistribution provides another role for government. Finally, if the government intervenes in the economy to reduce business fluctuations or help pull the economy out of economic downturns, it undertakes the role of stabilization. All these roles are undertaken by the same government, and some government activities might overlap several roles, but it is useful to divide the functions of government up this way to systematically analyze the various activities of government.[1]

Protection of Rights

Market exchange presupposes that the parties to an exchange have clearly defined and well-protected rights to the goods and services that they exchange. The protection of individuals' rights is almost everywhere done by government, although a substantial amount of private sector protection augments government protection. There are two reasons to consider the protective role of the state in an economic framework. One is that the protection of rights is necessary for a functioning economy, and the other is that this protection makes up a sizable fraction of the public budget. As was seen in chapter 1, national defense made up more than half the federal government budget as recently as the 1960s and remains an important function of government. At the state and local levels, police, courts, and the criminal justice system all are important parts of government activity.

Protection of Rights in a Market Economy

The government uses three basic institutions to protect individual rights in a market economy. Police protection is used to prevent individuals within a society from violating one another's rights. National defense is used to protect the rights of individuals within a nation from foreign aggressors. The courts and criminal justice system are used to resolve disputes among individuals within a society so that those who have disagreements do not have to resort to the use of force to settle their disputes. In all cases, the use of government to protect individual rights is intended to create a system in which all individuals interact with one another through voluntary agreement, and the legitimate use of force against others is reserved to the government.

The granting of a monopoly on the use of force to government can help protect individual rights but raises potential problems because the government itself might violate the rights of its citizens. Typically, models of market economies not only assume that individuals have securely protected property rights but also assume that the government powerful enough to protect individuals' rights from being violated does not use that power against its citizens. In the real world, individuals face both types of threats. Their rights can be violated by their neighbors, but at the same time it is not uncommon for governments themselves to be accused of violating the rights of individuals.

Market economies require the protection of individual rights

[1] The dividing lines here are somewhat arbitrary. For example, one might consider regulation to be a subset of the productive state rather than a separate function. Stabilization, too, might be considered a subset of the productive state insofar as it aids in the allocation of resources. This taxonomy is similar to one in a classic public finance text, Richard A. Musgrave, *The Theory of Public Finance* (New York: McGraw-Hill, 1959). Musgrave divides the functions of government into allocation, distribution, and stabilization branches. He took for granted that property rights would be protected by what here is called the protective state and does not consider directly the role of government regulation.

This raises the interesting question of how government power can be constrained. The American model of checks and balances uses one branch of government to constrain the others, and democratic election of officials can also have the effect of constraining the power of government. Furthermore, constitutional rules can be used as guidelines to limit government power—if those in government can be enticed to abide by those rules. The next three chapters deal with democratic decision making to see how government activity can be channeled to further the interest of its citizens rather than being directed toward benefiting those in government at the expense of the general citizenry.

How Much Protection Is Optimal?

The protection of rights is not an all-or-nothing proposition. Individuals' rights can be more or less secure as government devotes more or less resources toward protecting them. How much protection is optimal? The economist's answer is that resources should be expended to protect rights up until the point where the marginal cost of additional protection just equals the marginal benefit. Although this answer is good in theory, it does not provide much practical guidance. Consider resources devoted to national defense. Although one would want defense adequate to protect against foreign invaders, or perhaps significantly stronger to act as a deterrent against invasion, the United States faces no serious threats of invasion. Some defense is useful to protect the rights of citizens, but the United States also uses what is called "defense" to undertake offensive military operations, such as the one that dislodged Iraq from Kuwait in 1991, or to support humanitarian efforts as was begun in Somalia in 1992. At the margin, the United States could spend much less on defense without compromising the security of its borders. The marginal dollars spent on defense clearly are spent to further United States interests and policies outside the nation's borders. Chapter 22 deals with national defense in more detail, but the key point here is that the government is going to provide some amount of national defense. The real issue is whether the benefits of national defense are worth the costs at the margin.

The optimal level of protection equates the marginal benefits of protection with the marginal cost

Most of the analysis in this book assumes that the government protects the rights of its citizens to allow them to participate in market exchange and that the government enforces its laws so that, for example, citizens pay the taxes they are obligated to pay. A number of interesting issues arise, however, when this assumption is abandoned and the marginal costs and benefits of additional protection are analyzed. The issue is complicated when we realize that the government that has the power to protect us also has the power to exploit us and that a government powerful enough to protect our national borders is also powerful enough to project its power across national borders.

Government Production

The main issues surrounding the government's productive activities in the economy have been dealt with in the previous three chapters. If there are externalities, public goods, or poorly defined property rights, then the market may not produce goods and services efficiently, leading to a role for government to get involved. Government involvement not only can include regulation of the private sector, to be discussed later, but also can include public production, as is done with highways, schools, and public radio.

Externalities and public goods provide the main theoretical justifications for government production. Even when the production is undertaken to protect individual rights or for redistributive purposes, public production to achieve those goals tends to be rationalized based on an externality or a public good argument. National defense is a public good, in addition to protecting individuals' rights. Public education is redistributive in that it provides everyone with an equal opportunity, and public production is often justified based on a positive externality that is produced. The productive state promotes economic efficiency by undertaking production in areas where the market would fail to optimally allocate resources.

GOVERNMENT REGULATION

Sometimes resources might be allocated inefficiently because producers do not have an incentive to take account of the social costs of their actions. Other times market participants might be better able to allocate resources if better information were available to them. Although the government might directly take over production in these areas, another alternative would be for the government to regulate the behavior of private sector economic activity. The regulatory state might, in one sense, be viewed as a subset of the productive state. Regulation is applied in cases in which the private sector allocates resources inefficiently but in which the imposition of rules can provide the incentive for more efficient private sector production without the government having to take over production itself.

Information and Regulation

In the abstract, an omniscient government could do much in the face of market inefficiency to push markets toward optimal resource allocation. Regulations to protect the environment, to fairly and completely label products, and to ensure the safety of products and of workplaces are some of the possibilities. Governments are not omniscient, however, and insufficient information can make regulation counterproductive. For example, the Food and Drug Administration has met with some criticism for being too slow to approve drugs for life-threatening illnesses. Some people may benefit if a drug that later proves to be harmful is held off the market, but, if the drug eventually proves beneficial, the regulatory delay will have prevented many people who could have benefited from the drug from getting those benefits while the drug was waiting for approval.

The discussion of regulation or corrective taxation for externalities in chapter 4 illustrates another case in which, in the abstract, government regulation might prove beneficial. The illustrations in the text showed supply curves along with clearly defined external cost curves added on to show the true social cost. In the real world, however, information on the social cost of externalities is not easy to come by, so regulations with good intentions could do more harm than good. A fair assessment looks beyond just the problems that might exist with market allocation to compare the outcome in a market both with and without regulation.

Politics and Regulation

Some of the most interesting issues regarding regulation arise because regulations are the product of a democratic decision-making process rather than an omniscient government. When democratic governments are involved, all interests are represented, and often the interests of those who are to be regulated are represented more strongly than are the interests of those the regulations are intended to benefit. Natural monopolies such as electric utilities and telephone companies are often regulated by public service commissions to try to overcome some of the inefficiencies of monopoly. Not surprisingly, the regulated firms participate actively in the process to try to push regulations to favor the firms, while the consumers who are supposed to be the beneficiaries of regulation are rarely even aware of the type of regulation that takes place. When was the last time you contacted your public service commission about telephone or electric rates?

Government regulation may be influenced by politics

The real issue, then, is not in the abstract how beneficial an ideal regulation could be, but rather, given the realities of the political process, what type of regulation is likely to emerge. The next several chapters examine public policy formation in a democratic environment, and chapter 24 is devoted specifically to regulation.

REDISTRIBUTION

Chapter 1 illustrated that at the end of the twentieth century, American government spends more of its budget on redistribution than on any other single activity. Sometimes this redistribution comes in the form of direct monetary payments from taxpayers to recipients. Other times it comes in the form of in-kind payments such as food stamps, housing vouchers, or publicly financed medical care. At other times, a redistributive justification is given to public goods such as education, which can help to provide everyone with an equal opportunity. Redistribution has been the fastest growing component of government growth for decades and warrants attention for that reason if no other.

Reasons for Government Redistribution

At first glance, the reasons why government might engage in some redistribution of income might appear obvious, but a closer look reveals that there are several closely related rationales for redistribution. Those rationales that at first appear similar have policy implications that are different in important ways. One rationale is to use public policy to improve the well-being of those members of society who are least fortunate, providing a safety net for people who have fallen on hard times and ensuring that everyone has access to some minimal standard of living. Alternatively, greater equality might be desired as a social goal. Although these two goals have a similar ring to them, note that they are different goals and might imply different public policies. Helping the poor is not necessarily the same thing as promoting greater equality.

Sometimes the goals of helping those who are less fortunate and creating more equality can conflict

The poor in wealthy nations tend to be better off than the poor in poorer nations, suggesting that improving the well-being of the poor can be consistent with increasing everyone's standard of living. At the extreme, the goal of equality could be achieved by confiscating the wealth of above-average wealth holders and giving it to those below average until everyone's wealth is the same. This would destroy the incentive to be productive and would result in equality by creating a very poor society for everyone. This extreme example shows that the goals of equality and the alleviation of poverty are not necessarily the same.

Higher taxes on upper-income individuals will further the goal of equality but might reduce the incentive for upper-income individuals to earn income, resulting in less total tax revenue. Likewise, taxation of investment income can discourage saving and investment, making the economy less productive. This will further the goal of equality, but perhaps at the cost of reducing economic growth and making those at the lower end of the income scale worse off, too. Issues like this must be considered when designing a tax system, but a different tax structure will be called for depending upon whether the goal of redistribution is to create more equality or whether it is to help those who are the least fortunate in society. Likewise, redistribution programs themselves might be designed differently depending upon what goals the programs are intended to accomplish.

Politics and Redistribution

In the United States, the bulk of government transfers go not to the poor but to middle-income individuals. Social Security, the largest single transfer program, pays beneficiaries who, on average, are wealthier than the population as a whole. Farm price support programs, designed to maintain the incomes of farmers, primarily go to farmers whose incomes are above average. Because most taxes are also paid by middle-income individuals, redistribution in the United States is primarily from middle-income individuals to middle-income individuals.

Because of politics, most redistribution comes from middle income people and goes to middle income people

This should not be surprising when it is recognized that the government's redistribution policies are determined through a political system based on majority rule. There are many more middle-income people than there are people at either extreme, so although more revenue can come from middle-income individuals, they also have the political power to see that more redistribution goes their way. Retired Americans, in particular, have the reputation for being more politically active than the average citizen, with the result that they have more than proportional political clout and are able to use the democratic process to send resources their way.

Farmers find themselves in a similar situation. In urban areas, many different industries are present, so elected representatives must consider the interests of a diverse population. In rural areas, farming is the dominant industry, so farming has much more concentrated representation in Congress than any other industry. Thus, many representatives from rural areas represent primarily farming interests, while representatives from urban areas represent a variety of industries and would not concentrate on producing benefits for any particular industry. This enables farm interests to use the political process to generate a substantial number of benefits for their industry in a way that no other industry can. Although some subgroups of the population may have representation in greater proportion than their numbers, special interests of all types try to lobby Congress for benefits focused on them. Ironically, the poor, who have few resources to expend to influence the legislature, are likely to be underrepresented.

The point is not to focus on any particular redistributive issues but rather to see that the government's redistributive elements are a product of the democratic decision-

Interest groups can use the political system to gain redistributive benefits

making process. In the abstract, one might consider how redistribution could promote the general welfare, but actual public policy is conducted within a democratic framework, and those with political power tend to get benefits produced for themselves.

How involved should the government be in redistribution? Undoubtedly most people would support programs that care for the most needy and that help people who are down on their luck to get an opportunity to move into the mainstream of society. But when democratic government gets involved in redistribution, it opens the door to special interests who attempt to use the system to provide themselves benefits. The next three chapters discussing democratic decision making can shed some light on the underlying process. With this foundation, chapters 18, 19, and 20 look at particular redistribution programs.

STABILIZATION

Lack of information may prevent the government from optimally allocating resources

Before the Great Depression in the 1930s, there was the widespread belief among economists that the macroeconomy was self-regulating, in the sense that if there were economic downturns, the economy would automatically adjust and return to full employment and economic growth. That belief was shaken during the depression, and, indeed, even before the depression economists believed that the government could productively get involved in creating a more stable economic environment. In response to banking crises that would occur during recessions, Congress created the Federal Reserve System in 1913 to stabilize the banking system. A host of stabilizing programs appeared during the Great Depression, and, after World War II, the government explicitly pledged itself to pursue policies that would produce full employment.

Monetary policy and fiscal policy are the primary tools that are used to stabilize the economy. Monetary policy is aimed at controlling the money supply and the banking industry, while fiscal policy uses taxes and government expenditures for the purpose of maintaining full employment and low inflation. The stabilizing functions of the state are covered in macroeconomics and monetary economics, so despite their importance, they will receive minor attention in this text devoted to public finance. There are, however, direct implications for public finance with regard to the government's use of deficit finance and money creation. The public finance implications of borrowing and money creation are discussed in chapter 23.

CAN THE GOVERNMENT PERFORM THESE FUNCTIONS

The world is far from perfect, as the previous chapters have indicated. Externalities create harm because individuals do not consider the effects of their actions on others, and public goods create a situation in which valuable goods might be underproduced. Monopolies can dominate markets and lower economic welfare. However, just because a problem exists in the market does not necessarily mean that the government can allocate resources more efficiently. Consider first the protective, productive, and regulatory functions of government, which for efficiency all require the government to either produce some public good or regulate the private economy in such a way as to produce optimally. In all cases, a substantial amount of information was required to find the optimal allocation of resources. Can the government obtain the information necessary to allocate resources efficiently?

Information Problems

For a public good to be produced efficiently, the sum of the demands of individuals for the good must equal the marginal cost of producing that good. How would the government discover what the demands of individuals are for the public good? Without any revealed preference, the government must make an educated guess. If the market is left to produce the public good, it may be that an inefficiently small amount of the good will be produced, but the market for the good provides information about the demand for the good that is unavailable if production is moved into the public sector. Furthermore, public sector production means raising tax revenue, so the associated costs of the tax system must be included. Although the government may be able to produce a public good more efficiently, there is no guarantee.

Likewise, when an externality exists, there is no market data available to evaluate the cost or benefit of the externality. This follows by definition, since an externality allocates resources externally to the market. If the government does get involved, it may improve the allocation of resources, but, in a world with imperfect information, the government's solution will not necessarily improve on the market's allocation. Keeping the Coase theorem in mind, individuals in the market do have an incentive to allocate resources efficiently on their own. Are transactions costs a big enough barrier to recommend government intervention? Often they will be, but again there is no guarantee.

Policy Conflicts

Perhaps a bigger issue is that at times there will be conflicts among the government's many goals. If the government pursues redistributive goals, for example, the burden of the tax system on the economy from transferring income from one group of people to another will reduce the efficiency of resource allocation. Thus, there is an explicit trade-off between efficiency and equity. These trade-offs can be dealt with in an analytical fashion if members of a nation can agree on a social welfare function. If there is general agreement on policies that would further the social welfare, citizens might desire to trade off a little efficiency in exchange for more equity. However, if there is disagreement among individuals regarding what policies would further the public interest, then a direct conflict can emerge regarding public policy. Abstract criteria for judging social welfare were discussed in chapter 2. Operationalizing these criteria to allow clear comparisons of real-world policy alternatives is a more difficult proposition.

The government may have conflicting goals

The point is that the resource-allocation problems that were analyzed in the past several chapters were discussed in an abstract and isolated framework. The analysis assumed that a large amount of information was freely available regarding the misallocation that was taking place and that no other policy issues came into conflict with the issue being analyzed. In the real world, information is not so readily available, and the best answer is not always apparent to experts. Furthermore, policies intended to achieve one goal may conflict with the policies that would further other goals. Thus, the government may have trouble performing these functions in the real world because the real world is more complex than the abstract model that depicts the real-world problem.

WILL THE GOVERNMENT PERFORM THESE FUNCTIONS?

Perhaps there is enough information to solve a problem in the market, and an efficient policy is clear to policymakers. Even then the government might not act efficiently. Public policy is not made by public policy experts but rather emerges as a result of a democratic political process. Interest groups will always become involved in public policy issues that affect them directly, and their interests are not necessarily the interests of the general public. Furthermore, public sentiment on particular issues may conflict with the conclusions arrived at by public policy experts. This is to say that just because a well-informed government acting in the public interest could act to improve the general welfare does not necessarily mean that a democratic government, being pushed by political pressures, will act in the public interest.

Democratic decisions may not always further the public interest

This was clearly recognized two hundred years ago when the Founding Fathers wrote the Ninth and Tenth amendments to the Constitution limiting the power of the federal government.[2] If the government could be trusted always to act in the general public interest, placing such restrictions on the government would be counterproductive. But because the Founding Fathers realized that governments can act against the public interest, the power of the government was intended to be closely limited by the constraints of the Constitution. This is simply a recognition that the government will not always do what it potentially could do to further the public interest.

CLUBS AND GOVERNMENTS

Much of the material in this chapter has pointed toward the problems that can arise when trying to use government to improve the allocation of resources and further the public interest. This illustrates that government is not always the optimal solution even when a problem with resource allocation or distribution arises in the private sector. One possibility that should be considered explicitly is a voluntary formation of a collective organization to provide public goods or to internalize externalities. If a swimming pool is a public good, one way to provide it collectively is through a swimming club. Members must pay dues but then are provided access to the facility. Country clubs provide golf courses in much the same way.

2 The Ninth Amendment states, "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people." The Tenth Amendment states, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

Some clubs, such as bridge clubs, may provide collective services to their members in a very noncoercive way. Country clubs might be more coercive and require members to buy ownership shares and pay dues as long as they are members. When public goods are provided by governments, even more coercion will be involved. But though there are differences between clubs and governments, they might be viewed as opposite ends on a continuum of collective organizations that provide public goods. Consider some examples that illustrate the continuum from clubs to governments.

Clubs

At one end of the continuum are organizations such as bridge clubs. The game of bridge, like so many endeavors, is necessarily a collective undertaking because it takes four people to play the game. The simplest bridge club might be made up of four people who agree to meet once a week, rotating the meeting place from one player's house to the next, so that each person is the host of a meeting every four weeks. The person at whose house the meeting takes place is responsible for providing refreshments for the entire group.

Obviously, the benefits of playing bridge cannot be enjoyed alone. Collective action becomes necessary to provide the collective benefit, but it encompasses certain obligations as well. First, each individual has the responsibility to attend the meetings of the club because the game cannot be played with only three people. Second, once every four weeks, each individual has the responsibility of providing a meeting place and refreshments. In effect, this amounts to a tax (or perhaps dues) that must be paid by the members of the club in exchange for the benefits provided by the collective organization.

Club members relate to their clubs in a manner similar to the way that citizens relate to their governments

The provision of refreshments is analogous to a tax imposed by a government, and the requirement that the members attend each meeting (which is necessary for the good to be produced) is analogous to the laws that citizens of a government must obey. The club might also have penalties for disobeying the laws. For example, it could be agreed that if a member misses two meetings in a row, the club will replace that member. Frequently, bridge clubs are much larger, in which case they may have a regular meeting place, elected officers, and mandatory dues. Is the bridge club a government? Of course it is not, but it is interesting to see the similarities between clubs and governments and to note that principles of collective decision making, such as a majority-rule voting, and principles of public finance, such as the paying of dues or taxes to finance public goods, can apply to both. Clubs and governments share many characteristics.

Collective Facilities

Consider another case. When new subdivisions are being developed, the developer may include swimming pools and tennis courts in the development to attract buyers for homes. Often, the ownership of the collective facilities will go to the collective group of homeowners. Restrictive covenants (discussed in more detail in chapter 3) can be used to govern the homeowners' association, and the homeowners will elect officers to oversee the facilities. Each homeowner must participate in the collective activities as a part of the responsibility of buying a house in that neighborhood. Indeed, the developer requires that the buyer of a home also buy a share of the common facilities, which is then bought and sold along with the home in the future. According to the contract, every homeowner not only has the right to vote for officers and use the facilities but also has the obligation to pay dues.

Here the fine line between a club and a government begins to blur. This club is set up in the private sector and is independent of any government organization. And yet, just by virtue of owning property in a particular area, the resident is obligated (by contract) to pay dues, which now seem to more closely resemble taxes, in exchange for the right to use the common facilities. In what ways does this arrangement differ from a government?

Government

By comparison, residents of a small city like Tallahassee, Florida, pay taxes to the city and in exchange get to use city parks, pools, and tennis courts, as well as other collective services. If a person does not want to participate in the city government, Tallahassee is small enough that one can live in another nearby city, or can choose to live outside the city limits of any city, even if the person works in Tallahassee. Thus, as in the subdivision just described, a person can live within the geographic boundaries of the area, pay dues or taxes, and participate in the collective benefits produced. But it is also possible in both cases to live outside the boundaries of either the city or the subdivision, thus avoiding the taxes but also forgoing the benefits. In either case, because one can choose to live there, participation has a significant voluntary aspect to it.

Now compare city government with state government. Again, taxes must be paid, and a person has an option of living in one state as opposed to another. But though one can choose to live outside the boundary of any city, one must live in a state, and it is more difficult to choose one's state than one's city. The federal government is even more encompassing. One can move to a different country, but this is not a meaningful choice for most people. Thus, one must ultimately abide by the rules of the federal government and pay taxes in exchange for benefits received.

The Characteristics of Government

We have noted the element of compulsion in every club or government, although admittedly it is easier to escape a tyrannical bridge club than a tyrannical national government. Both clubs and governments provide collective benefits but expect some type of payment in return. In the continuum from club to government, what characteristics enable us to identify one organization as a club and another as a government?

Clubs are voluntary organizations but governments are not

The key element in the continuum described here was the degree of coercion that could be used by the club to get members to abide by its rules.[3] It is easy to quit a bridge club, but, if one must buy a share in a country club to be a member, getting out of the country club is more difficult, which gives the country club more coercive power over its members. The collective swimming pool in the subdivision described earlier is even more difficult to divest oneself of because it comes with home ownership.

[3] The distinction between clubs and governments is discussed in more detail in Randall G. Holcombe, *The Economic Foundations of Government* (New York: New York University Press, 1994).

To get out of that organization, members would have to sell their homes and move. The same is true of city governments. With state and national governments, moving may not be a realistic alternative, giving the government much more coercive power over its residents.

An important issue then becomes how the coercive power of government can be controlled so that it can be used to further the common interests of its citizens but cannot be used to oppress those over whom it wields this power. Because clubs, which are voluntary organizations, can substitute for governments in some situations, one way to control the power of governments is to keep the production of public goods in the private sector, using clubs as a vehicle for delivery of public goods. Considering this alternative, when will government provision be justified?

THE FREE RIDER PROBLEM

One case in which voluntary arrangements may not produce a satisfactory outcome is when a nonexcludable public good allows individuals to be free riders. If the public good will be available to people whether or not they pay for it, they have an incentive to understate their demand for the good because they will be able to use the output that is produced by others. Recall from chapter 5 that the free rider problem creates a prisoners' dilemma situation, in which if all individuals pursue their own self-interests, the outcome makes individuals worse off than if they all had undertaken a cooperative strategy.

Free Riding and Shirking

In one example from chapter 5, two individuals shared a common driveway and had an incentive to cooperate to shovel the driveway on days that it snowed. Although such an agreement could be made between two individuals in a small-numbers setting, an agreement is unlikely in a large-numbers setting such as a whole town. Consider the situation in which everyone in a town agrees to participate in clearing the town's streets after it snows. Of course, infirm and ill persons cannot be expected to help out, but that gives people who have only a small illness (or a large imagination) the incentive to free ride and allow others to clear the roads. After the roads are clear, the free riders can use the roads just like those who actually helped do the work.

Even individuals who actually are helping will have an incentive not to work as hard when they are part of a group. If they are working alone, hard work will get the job done sooner, but, with many other individuals working, each individual has the incentive to allow others to carry most of the burden. Individuals who are working with the group, but do not work as hard as they would if they were doing the job themselves, are shirking. Shirking, like free riding, reduces the production of the collectively produced good and results in inefficiency. Both the shirkers and the free riders are hoping to consume the public good produced primarily by the effort of others.

Free Riding and Understatement of Demand

Imagine what might happen if, rather than using coercive taxation to finance national defense, people were asked to contribute voluntarily. Presumably, almost everyone wants to be protected by a system of national defense, but the possibility of free riding on national defense is very strong. If national defense is provided for some people in an area, it also defends other people in the area whether they want it to or not. But what if people are asked to contribute voluntarily to national defense? They will figure that if everyone else contributes, then the area will be well defended and their individual contribution will make little difference to the overall level of defense. Thus, if others provide defense, they see little reason why they should contribute to the effort. If they see that no one else is contributing, they will figure that, in this case, their own individual defense effort will make little difference—one person cannot defend against a foreign army.

When free riding is possible, everyone could be better off being forced to contribute

Like the individuals in the prisoners' dilemma who find it in their self-interest to confess no matter what the other prisoner does, here each individual finds it in his interest not to contribute to the national defense effort, no matter what anyone else does. Even those who might decide to contribute something will have an incentive to contribute less than the true amount that the good is worth to them, so people will be shirkers or free riders.

The result is that less than the optimal amount of national defense will be produced with voluntary contributions. People will have different demands for national defense, and some pacifists may actually demand none at all. However, no one will know what another person's actual demand is, so every person will have an incentive to understate her true demand. Therefore, with the potential of the free rider problem, government can be justified not only to see that the good is produced but also to see that everyone contributes his fair share.

The Holdout Problem

The holdout problem can arise whenever unanimous approval among members of a group is required for some Pareto superior move to occur. For example, assume that an individual decides to build a highway to connect two locations. To put the example in explicitly economic terms, the highway in this example will be a toll road, and the individual expects to be able to make a profit on the road if it is built. The proposed road will run over the property owned by ten individuals, each of whom, without knowledge of the toll road, is willing to sell her property for $10,000. The individual building the highway calculates that if all ten pieces of property are obtained for the highway, their combined value would be $150,000. The holdout problem exists because the builder of the road needs all ten pieces of property to complete the road. But if the individual owners find out about the road project and can estimate the value of the road to the builder, they will have an incentive to hold out for a price not only higher than they were originally willing to sell for but also higher than the builder could pay.

The holdout problem can hinder the efficient allocation of resources

Assume that the builder of the road has already bought nine of the ten pieces of land, paying $10,000 each for a total of $90,000. All ten parcels together are worth $150,000, so the value of the remaining parcel to the builder is $60,000. As a result, the owner of the remaining parcel of land has an incentive to hold out and demand $60,000 for the property, even though he would have been willing to sell for $10,000 had he not known about the road.

The problem the road builder faces is this. Before he buys any land at all, each land owner is potentially a holdout. Realizing that the last parcel will be worth $60,000 each landowner has an incentive to hold out and ask as much as $60,000 for the property, in which case the potential developer will find it almost impossible to assemble the tract. Building the road would be a potential Pareto superior move, but, because each existing landowner has an incentive to hold out, the developer may not even try to complete the project. This type of problem is likely to arise any time someone wants to assemble a large parcel of land currently owned by a large number of people, as, for example, when a utility company or railroad tries to buy a right-of-way for power lines, pipelines, or railroad tracks or when a developer tries to assemble enough land to buy a shopping center.

Solutions to the Holdout Problem

There are market solutions to the holdout problem

One way to avoid the holdout problem, when the alternative exists, is to assemble the property from fewer rather than more individual tracts. A shopping center can be developed outside of a heavily developed area by buying a large farm owned by one individual, for example, rather than trying to assemble a tract owned by many people. Another solution may be to have alternatives to present to prospective sellers. A shopping center may require ten pieces of land, but, if an alternative site exists, holdouts may be enticed to sell. Similarly, a highway, railroad, or pipeline may be able to take alternative routes to reach a destination. Contingency contracts may also be used. The buyer may agree to buy one of the tracts of land contingent upon being able to reach agreements to buy the rest. Thus, if a holdout problem develops, the buyer is released from the obligation, reducing the incentive of one seller to hold out.

When the Disney company was purchasing land in central Florida to build Disney World, it assembled the entire tract of land secretly. Over a period of years, it established several corporations and bought land through a number of different real estate companies, never revealing that it was Disney or that it was assembling a large tract of land. Only after the entire parcel had been assembled did it announce that it had acquired the land and was going to build Disney World there. Because people did not realize they were selling to Disney, the Disney company was able to avoid the holdout problem when it assembled its large tract of land. There are ways in which the private market can deal with the holdout problem.

Eminent Domain

Eminent domain is a government solution to the holdout problem

The government frequently finds itself involved in situations in which a holdout problem could arise, and the holdout problem provides the justification for the law of eminent domain. Eminent domain allows the government to force owners to sell their property at a fair market value. If the government and the property owner cannot agree on a value, they can go to court to have a value established, but, if the government wants the property, it can claim it through eminent domain, although compensation must be paid. Eminent domain has been used to buy land for highways, railroad right-of-way, power lines, and even urban development projects.

Unanimity and Holdouts

The key to the holdout problem is that everyone in a group must agree on an exchange for a Pareto superior move to take place. Recall that a Pareto superior move, by its very nature, produces net benefits for the group. People have an incentive to hold out to capture a larger share of the net benefits produced by the exchange. Because everyone has an incentive to be a holdout, agreement is difficult to reach.

The holdout problem can exist when unanimous agreement is required

Clearly, the holdout problem will exist if unanimous approval is required in voting situations as well. In a group using unanimity rule, a proposal might benefit everyone in the group, yet some people might vote against it with the hope of obtaining a larger share of the collective benefits through an alternative proposal. If unanimous agreement is required, this is the same as giving every individual in the group veto power. Because the holdout problem potentially can stand in the way of economic efficiency, it can be used to justify government intervention, like the free rider problem. The government prevents holdouts by forcing people to go along.

CONSENT AND COERCION

The problems posed by the free rider and the holdout exist when an action that would benefit everyone in a group is not taken because each individual has an incentive not to cooperate with the group but rather to reap the potentially greater gains from not cooperating, regardless of what anyone else does. In such a situation, all individuals have an incentive to minimize their cooperative behavior. The result may be that the government coerces people to cooperate with the group, as when people are forced to pay taxes for national defense or to sell their property under the government's right of eminent domain. Because everyone is better off when the free rider and holdout problems are overcome and because government coercion can overcome these problems, it might be said that in such situations, people would agree to be coerced.

The argument that people would agree to be coerced goes as follows. For many goods, such as snow removal and national defense, people generally desire for the goods to be produced, but they have an incentive to free ride if others are willing to produce them. In recognizing the free rider problem, individuals can volunteer to contribute to the production of the good as long as everyone else is willing to contribute as well. This solution resembles the contingency contract often drawn up when assembling a large plot of land—an individual agrees to cooperate under the condition that all others likewise agree.

People can be better off if everyone is forced to obey certain rules

In effect, individuals are saying that they agree to be forced to participate as long as everyone else is forced to participate. People are agreeing to be coerced for the benefit of everyone, including themselves. In this way, the Paretian framework can be extended even to government activities that force people to contribute whether they agree or not, under the logic that individuals have an incentive not to agree—to be free riders—but that each individual is better off when all individuals are forced to participate. In this sense, there is no contradiction in saying that individuals can agree to be coerced.

The reader must be wary of this argument, however, for it has been extended from one in which people actually agree to one in which it is possible that people could agree. The agreement does not actually take place; we are only supposing that it could. We are saying that people are being coerced to pay their taxes but that they are better off being coerced than if no one was coerced. The problem with the argument that people would consent to be coerced is that there is no way to know whether it is true or not. Although we hope that the government makes Pareto superior moves, we might use the supporting argument to state that a Pareto superior move is being made when in reality it is not. In fact, such an argument might be used to justify virtually any type of government activity, simply by referring to a potential free rider problem.

This argument might be used to justify undesirable coercion

If one wants to remain strictly within the Paretian framework to justify public sector activity, it is unlikely that any government activity can be justified on the basis that individuals agree to be coerced. Although almost everyone might agree on certain things, it is highly unlikely that absolutely every one of millions of citizens would agree to any particular government activity. And if there is even one dissenter, then the government activity does not constitute a Pareto superior move.

CONCLUSION

This chapter has raised a number of interesting questions regarding the role of government in a democratic society. The government's role might be divided into several distinct categories. The government protects rights, produces goods and services, regulates the activities of firms and individuals, redistributes income, and stabilizes the economy. How far the government should go in pursuing each of these activities is an important public policy issue.

A theoretical framework for analyzing many of these issues has been developed, but often in the real world there is not enough information available for the government to perfectly implement the solutions that might in theory be possible. This means that the imperfect allocation of resources that would occur in the market must be compared with the imperfect allocation of resources that could be done by government to choose the best among imperfect options. Even when the information is available, democratic decision making may not lead government to choose the most efficient allocation of resources.

Given the problems with government resource allocation, what justification can be given for government activity at all? The free rider problem and the holdout problem create prisoners' dilemma-type situations in which all individuals pursuing their own self-interests end up producing a result that is worse than if all of them were coerced into acting to further the public interest. Government programs attempt to improve the welfare of the general public in those situations by forcing individuals to participate in activities that are socially beneficial. One hopes that government programs with good intentions actually do produce good results and that the government powerful enough to push us to act in the public interest does not abuse its power and exploit the citizens under its domain.

Free rider and holdout problems may justify government coercion

Economics has taken great strides in understanding the way that resources are allocated in markets. The desirable results of competitive markets have been discussed since Adam Smith wrote *The Wealth of Nations* in 1776, and economists also have long understood misallocations resulting from monopoly and other economic problems. But to make a good comparison between resource allocation in the public sector and resource allocation in the private sector, we must also understand something about the way that government allocates resources. The way in which democratic governments allocate resources is the subject of the next three chapters.

QUESTIONS FOR REVIEW AND DISCUSSION

1. Explain the role of the government in protecting the rights of individuals in a market economy. What government institutions are employed to protect individuals' rights? How are the basic protective functions divided up among those institutions?
2. In the real world, the government protects individuals' rights, but only imperfectly. How much rights protection is optimal? If the government devoted a little more or less resources toward the protection of rights, what would be the marginal benefits and costs?
3. What are the economic justifications for government production? What are the drawbacks to producing in the public sector rather than in the market? What goods and services do you think are most important to have produced in the public sector? Why?
4. When markets fail to allocate resources efficiently, perhaps because of an externality or lack of consumer information, the government often intervenes by regulating an industry. How can regulation improve the allocation of resources? What problems might arise that could prevent regulation from leading to the optimal allocation of resources?
5. What are some possible rationales for the government becoming involved in the redistribution of income? How might public policies toward redistribution vary depending upon the rationale for redistributive programs? Do you feel that any one rationale for redistribution is a better foundation for public policy than the alternatives? Do you feel that any rationale for redistribution is undesirable?
6. What types of redistributive activities would tend to be produced through a democratic decision-making process? Does redistribution through majority rule lead to desirable distribution of income? Does it solve the kinds of problems that you think should be addressed by redistributive policies?
7. Economic theory points to a number of problems with resource allocation in private markets, such as externalities, public goods, and monopoly. In theory, government policy can improve resource allocation in these cases. In practice, what types of problems might the government run into in trying to solve these problems? How might these problems be dealt with to produce public policies that are as successful as possible?
8. What are the free rider and holdout problems? Explain why these problems can be used to justify government intervention to allocate resources efficiently. Are these arguments persuasive?
9. Explain the argument that in order to overcome the free rider problem, individuals could agree to be coerced. Is this argument persuasive? Discuss both sides of the issue.