Public Finance II.

Lecture VIII - Political Economy

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Readings:

- Gruber, J. (2005). Public finance and public policy. Macmillan.
- Congdon, W. J., Kling, J. R., & Mullainathan, S. (2011). Policy and choice: Public finance through the lens of behavioral economics. Brookings Institution Press.
- Sunstein, C. R. (2020). Behavioral science and public policy.
 Cambridge University Press.

Political economy

- We learned how to determine the optimal level of public goods by setting social marginal costs and benefits equal; we also learned how to use cost-benefit analysis to quantify the costs and benefits of public projects.
- In the real world, however, economists do not get to decide whether public policies are undertaken or not.
 Instead, such decisions are made in the context of a complex political system. In some countries, these decisions may be made by a single ruler or group of rulers. In others, the decisions are made by elected officials or by the direct votes of citizens.
- Do any or all of these mechanisms deliver the optimal interventions suggested by the theoretical analyses of this book? In some cases they will, but in other cases they will not.
- This lecture discusses how government actually operates when it makes decisions about the economy, such as
 the provision of public goods. We begin by discussing the best-case scenario in which a government
 appropriately measures and aggregates the preferences of its citizens in deciding which public projects to
 undertake. We then discuss the problems with this idealized scenario and turn to more realistic cases.
- One more realistic case is that of direct democracy, whereby voters directly cast ballots in favor of or in opposition to particular public projects. We discuss how voting works to turn the interests of a broad spectrum of voters into a public goods decision. The second case is that of representative democracy, whereby voters elect representatives, who in turn make decisions on public projects. We discuss when it is likely or not likely that representative democracy yields the same outcomes as direct democracy. Finally, we move beyond models of voting behavior to talk in broader terms about the prospects for government failure, the inability or unwillingness of governments to appropriately address market failures. We discuss some of the implications of government failure and discuss evidence about its importance to economic well-being.

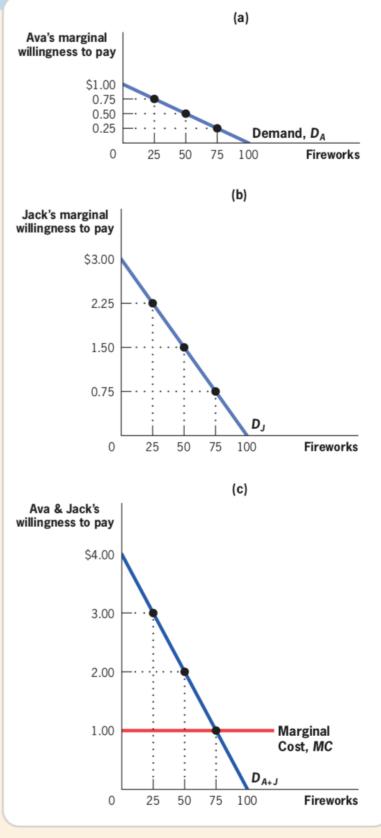
Unanimous Consent on Public Goods Levels

- Let's start with the example of a government that is able to optimally determine the level of public goods to provide through the unanimous consent of its citizens. It does so through Lindahl pricing, a system by which individuals report their willingness to pay for the next unit of a public good, and the government aggregates those willingnesses to form an overall measure of the social benefit from that next unit of public good.
- This marginal social benefit can then be compared to the marginal social cost of that next unit of public good to determine the optimal amount of the public good, and the good can be financed by charging individuals what they were willing to pay.

Lindahl pricing mechanism

- With Lindahl pricing, the government does not need to know the utility functions of individual voters: it gets the voters to reveal their preferences by stating their willingness to pay for different levels of the public good.
- The Lindahl equilibrium involves charging Ava 25¢ and Jack 75¢ for each of 75 fireworks.
- This is an equilibrium for two reasons. First, both Ava and Jack are happy: they are both happy to pay those tax prices to get 75 fireworks. Second, the government has covered the marginal cost of producing the fireworks by charging each individual his or her marginal willingness to pay.
- Lindahl pricing corresponds to the concept of benefit taxation, which
 occurs when individuals are being taxed for a public good according
 to their valuation of the benefit they receive from the good.
- Importantly, this equilibrium is also the efficient level of public goods provision, the point at which the sum of the social marginal benefits of the public good is set equal to social marginal cost.

■ FIGURE 9-1



Lindahl Pricing • Panel (a) shows Ava's marginal willingness to pay for fireworks, and panel (b) shows Jack's marginal willingness to pay for fireworks. These marginal willingnesses to pay are summed in panel (c). The marginal cost of a firework is \$1, so the optimal level of firework provision is 75 fireworks, the point at which marginal cost equals the sum of willingness to pay.

Problems with Lindahl Pricing

- Although Lindahl pricing leads to efficient public goods provision in theory, it is unlikely to work in practice. In particular, there are three problems that get in the way of implementing the Lindahl solution.
- **Preference Revelation Problem:** The first problem is that individuals have an incentive to lie about their willingness to pay, since the amount of money they pay to finance the public good is tied to their stated willingness to pay. Individuals may behave strategically and pretend that their willingness to pay is low so that others will bear a larger share of the cost of the public good. The incentive to lie with Lindahl pricing arises because of the free rider problem: if an individual reports a lower valuation of the public good, she pays a lower amount of tax but she doesn't get much less of the public good.
- **Preference Knowledge Problem**: Even if individuals are willing to be honest about their valuation of a public good, they may have no idea of what that valuation actually is.
- **Preference Aggregation Problem:** Even if individuals are willing to be honest and even if they know their valuation of the public good, there is a final problem: How can the government aggregate individual values into a social value?
- Thus, the Lindahl pricing solution, while attractive in theory, is unlikely to work in practice. More practical solutions to determining the optimal level of public goods need to answer the following questions: First, how can societies use voting mechanisms to effectively aggregate individual preferences? Second, how well do elected representatives carry out the preferences of individual voters?

Mechanisms for Aggregating Individual Preferences

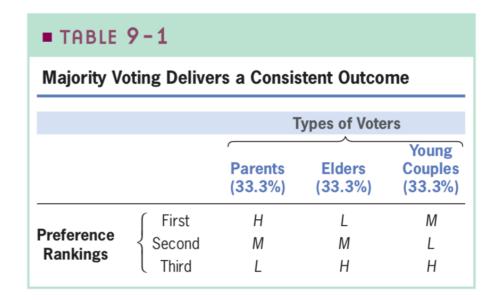
• Direct voting on policies

- Referendum allows citizens to vote on laws or constitutional amendments that have already been passed by the legislature
 - Legislative referenda citizens accept or reject the legislation proposed by officials
 - Popular referenda citizens, if they collect enough petition signatures, can place on the ballot a
 question of whether to accept or reject a given piece of legislation
 - The important feature of a referendum is that it is designed to elicit reactions to legislation that politicians have already approved.
- Voter initiatives allow citizens, if they can collect enough petition signatures, to place their own legislation on the ballot for voters to accept or reject
- Referenda and initiatives can be sparked by all kinds of issues. In U.S., early in the twentieth century,
 voters changed election rules, alcohol regulation, labor laws, and the administration of government. By
 the 1970s voters were interested in tax reform, environmental issues, and nuclear developments. By the
 1990s, physician-assisted suicide, animal rights, gaming regulations, and politician term limits were
 among the many issues considered directly by the voters.

Majority Voting: When It Works

- The Lindahl pricing scheme had a very high standard for setting the level of public goods: only when all citizens were unanimously in agreement did the government achieve the Lindahl equilibrium. In practice, the government typically does not hold itself to such a high standard. A common mechanism used to aggregate individual votes into a social decision is majority voting, in which individual policy options are put to a vote and the option that receives the majority of votes is chosen. Yet even this lower standard can cause difficult problems for governments trying to set the optimal level of public goods.
- Success of majority voting means being able to consistently aggregate individual preferences into a social decision. To be consistent, the aggregation mechanism must satisfy three goals:
 - **Dominance**: If one choice is preferred by all voters, the aggregation mechanism must be such that this choice is made by society; that is, if every individual prefers building a statue to building a park, the aggregation mechanism must yield a decision to build a statue.
 - **Transitivity**: Choices must satisfy the mathematical property of transitivity: if a large statue is preferred to a medium-size statue, and a medium-size statue is preferred to a small statue, then a large statue must be preferred to a small statue.
 - Independence of irrelevant alternatives: Choices must satisfy the condition that if one choice is preferred to another, then the introduction of a third independent choice will not change that ranking. For example, if building a statue is preferred to building a park, then the introduction of an option to build a new police station will not suddenly cause building a park to be preferred to building a statue.

Majority Voting: When It Works



- These three conditions are generally viewed as necessary for an aggregation mechanism to provide a successful translation of individual preferences to aggregate decisions. In fact, however, majority voting can produce a consistent aggregation of individual preferences only if preferences are restricted to take a certain form.
- To illustrate this point, consider the example of a town that is deciding between alternatives for school funding. Schools, an impure public good, are financed by taxes, so a higher level of funding also means higher taxes. The town is choosing between three possible levels of funding: H is the highest level of funding (and thus highest taxes); M is a medium level of funding and taxes; and L is a low level of funding and taxes. There are three types of voters in this town, with equal numbers in each group:
- Parents, whose main concern is having a high-quality education for their children. This group's first choice is H, their second choice M, and their third (least-preferred) choice is L.
- Elders, who don't have children and therefore don't care about the quality of local schools, so their main priority is low taxes. This group's first choice is L, their second choice is M, and their third choice is H.
- Young couples without children, who do not want to pay the high taxes necessary to fund high-quality schools right now but who want the schools to be good enough for their future children to attend. This group's first choice is M, their second choice is L, and their third choice is H.
- In this example, the option chosen by majority voting will be the medium level of funding, the choice of the median voter (the young couples).

Majority Voting: When it does not work

■ TABLE 9-2				
Majority Voting Doesn't Deliver a Consistent Outcome				
		Types of Voters		
		Public School Parents (33.3%)	Private School Parents (33.3%)	Young Couples (33.3%)
Preference Rankings	First Second Third	H M L	L H M	M L H

- Suppose now that the town is the same except that the elderly are replaced by individuals who have children but are contemplating choosing private school over the local public schools to make sure that their children get the best possible education. This group's first choice is low public school spending and low taxes: if taxes are low, they can afford to send their children to private school. If they can't get low school spending, then their second choice is high school spending and high taxes. Without the low taxes, they will not be able to afford to send their children to private schools; they will therefore choose public schools, in which case they want the highest quality public schools and are willing to pay the taxes to support them. From these new families' perspective, the worst outcome would be medium spending. They would face somewhat high taxes, but because the schools wouldn't be top quality, they would send their children to private school anyway.
- This set of outcomes is problematic because there is no clear winner: L is preferred to H, and H is preferred to M, but M is
 preferred to L! Indeed, no matter what order the pairwise votes occur, there is never a clear winner. These results violate the
 principle of transitivity, resulting in cycling: when we when we aggregate the preferences of the individuals in this town, we do
 not get a consistently preferred outcome. So majority voting has failed to consistently aggregate the preferences of the town's
 voters.
- Note that the failure to get a consistent winner from majority voting does not reflect any failure of the individuals in the town;
 as described, each individual has a sensible set of preferences across the spending levels. The problem is in aggregation: we
 are unable to use voting to aggregate these individual preferences into a consistent social outcome. This creates the problem
 that the agenda setter, the person who decides how voting is to be done (which mechanism and in which order), can
 significantly influence the outcome.
- For example, an agenda setter who wanted low spending could first set up a vote of M versus H, which H would win, and then of H versus H, which H would win, and declare that H was the winner. Or an agenda setter who wanted high spending could first set up a vote of H versus H, which H would win, and declare that H was the winner. The inability to get a consistent winner from majority voting can, ultimately, give dictatorial power to the agenda setter.

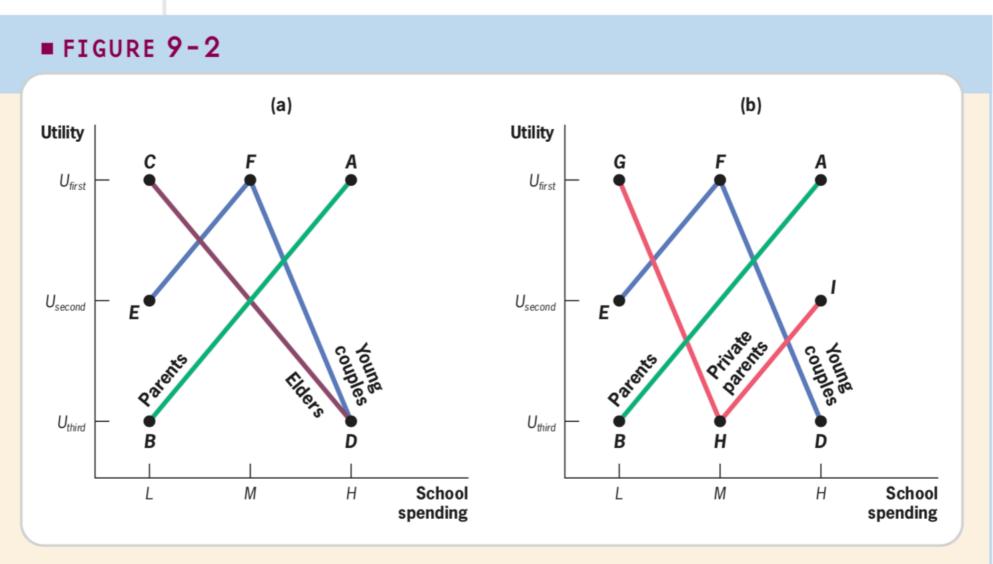
Arrow's Impossibility Theorem

- The failure to consistently aggregate individual preferences is not just a problem with majority voting. In the example with the private school parents, there is in fact no voting system that will produce a consistent outcome. Consider some alternative approaches:
 - We could let everyone vote on their first choice, rather than pairwise voting, but this would just produce a three-way tie in both examples since each group is the same size and has a different first choice.
 - We could do weighted voting by assigning, for example, 3 points for one's first choice, 2 points for one's second choice, and 1 point for one's third choice, and then pick the outcome with the most points. In the first example, M would win with 7 points while L would have 6 and H would have 5. In the second example, however, there would be a three-way tie, with each option having 6 points.
- One of the most important insights of political economy theory was developed by Nobel Prize-winning
 economist Kenneth Arrow in 1951. Arrow's Impossibility Theorem states that there is no social decision
 (voting) rule that converts individual preferences into a consistent aggregate decision without either (a)
 restricting the type of preferences assumed for voters or (b) imposing a dictatorship.
- That is, no matter what the voting rule is, one can always find examples where it cannot be used to turn individual preferences into a clear, socially preferred outcome through majority voting unless one chooses one of two shortcuts. The first is to restrict voters' preferences by imposing some additional assumptions on the general structure of preferences. The second shortcut is to impose a dictatorship: a dictator can always make a consistent social decision simply by imposing her preferences.

Restricting Preferences to Solve the Impossibility Problem

- The most common restriction of preferences that is used to solve the impossibility problem is to impose what are called single-peaked preferences. A "peak" in preferences (also called a local maximum) is a point that is preferred to all its immediate neighbors. Single-peaked preferences feature only one such point, so utility falls as choices move away in any direction from the peak choice. Multi-peaked preferences feature more than one such point, so that utility may first rise to a peak, then fall, then rise again to another peak.
- The key advantage of single-peaked preferences for economic theory is that any peak can be assured of being the only peak. That is, if utility falls in both directions away from any point, we can be sure that a voter prefers this option most. With multi-peaked preferences, this is not necessarily the case; utility may fall away from a peak but then rise again to a new peak.
- If preferences are single-peaked, majority voting will yield consistent outcomes.
- Fortunately, single-peakedness is generally a reasonable assumption to make about preferences. In most cases, when choosing among public goods such as national defense, individuals will have one preferred level, with utility falling as spending either rises or falls from that level. Single-peakedness is a potentially problematic assumption, however, when there is the possibility of a private substitute for a public good (schools, parks...)

Restricting Preferences to Solve the Impossibility Problem



Single-Peaked vs. Non-Single-Peaked Preferencess • Panel (a) graphs the preferences from Table 9-1, which are all single-peaked; utility is always falling as each individual moves away from the preferred choice. Panel (b) graphs the preferences from Table 9-2; now the parents considering private school don't have single-peaked preferences since utility first falls then rises as spending levels increase.

Median Voter Theory

- If the preferences of voters are single-peaked, majority voting will deliver a
 consistent aggregation of the preferences of the individual voters. Under this
 assumption of single-peaked preferences, in fact, we can make an even
 stronger statement about the outcome of majority voting across public goods
 options.
- The Median Voter Theorem states that majority voting will yield the outcome preferred by the median voter if preferences are single-peaked. The median voter is the voter whose tastes are in the middle of the set of voters, so an equal number of other voters prefer more and prefer less of the public good.
- In both examples, the median voters are the young couples; their first preference is for the middle option, and in each case there is one voter group that prefers low spending and another that prefers high spending. In the first case, where preferences are single-peaked, the outcome preferred by the median voter is the one chosen (medium spending). In the second case, where one voter group has double-peaked preferences, the outcome is not consistent.

The Potential Inefficiency of the Median Voter Outcome

- The median voter outcome from majority voting is very convenient. Taken literally, it implies that the government need find only the one voter whose preferences for the public good are right in the middle of the distribution of social preferences and implement the level of public goods preferred by that voter. The government need not know anything about the preferences of the many voters on either side of the median: all the government has to do is find the median voter and then implement that voter's preferences.
- While this median voter outcome is convenient, however, it might not be socially efficient.
 Social efficiency requires that the social marginal benefits of a public project equal its social marginal costs. This may not be true with median voter outcomes because such outcomes do not reflect intensity of preferences.
- Recall that the social marginal benefits of a public good are the sum of the private marginal benefits that each individual derives from that good. If a small number of individuals derive enormous benefits from the public good, then they should be accounted for in computing total social marginal benefits. This will not necessarily be the case with the median voter, however, because the outcome is determined only by the ranking of voters and not by the intensity of their preferences.

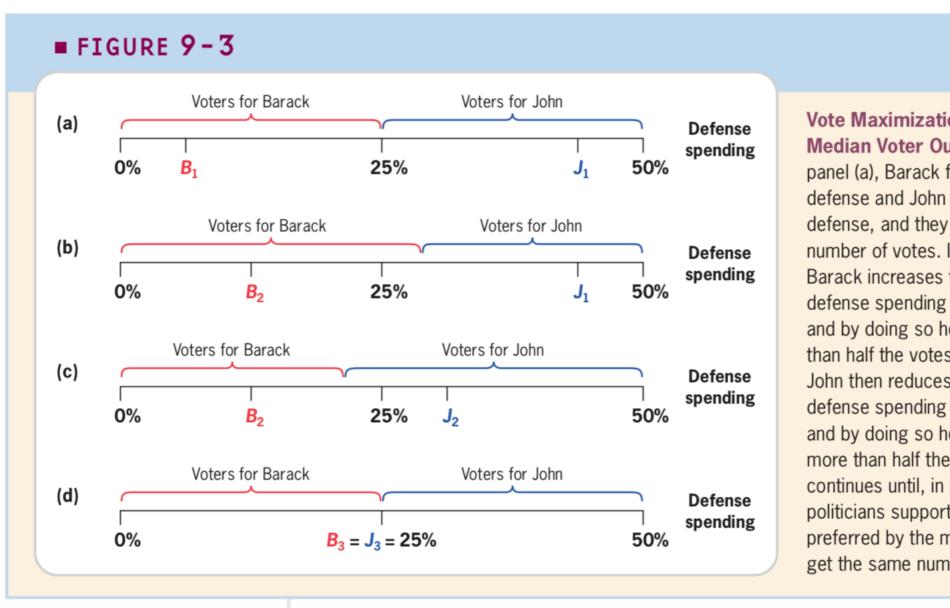
Representative Democracy

- In reality, people in most developed nations don't vote directly on public goods. Rather, they elect representatives who are supposed to aggregate the public's preferences and take them into account when they vote on the appropriate level of spending on public goods.
- To understand outcomes in a representative democracy, we therefore need a theory that explains how politicians behave. The most common theory that has been used in public finance is a version of the median voter theory that we discussed for direct democracy: politicians will choose the outcome that is preferred by the median voter.
- In this section, we review the median voter theory for representative democracies, discussing the assumptions underlying it and presenting the empirical evidence for and against it.

Vote-Maximizing Politicians Represent the Median Vote

- The median voter theory in the representative democracy context rests on the single key assumption that all politicians care about is maximizing the number of votes they get. If this is true, then elected politicians will choose the outcome preferred by the median voter (as long as preferences are single-peaked). That is, with vote-maximizing politicians, the theory we used to explain direct democracy can be applied to representative democracy as well.
- In this context, as with direct democracy, the median voter model is a powerful tool. Politicians and political analysts need not know the entire distribution of preferences to predict vote outcomes in this model. All they need to understand is the preferences of the median voter.

Vote-Maximizing Politicians Represent the Median Vote



Vote Maximization Leads to the Median Voter Outcome • In panel (a), Barack favors small defense and John favors large defense, and they get an equal number of votes. In panel (b), Barack increases the level of defense spending he will support, and by doing so he obtains more than half the votes. In panel (c), John then reduces the level of defense spending he will support, and by doing so he now obtains more than half the votes. This continues until, in panel (d), both politicians support the outcome preferred by the median voter and get the same number of votes.

Assumptions of the Median Voter Model

- Although the median voter model is a convenient way to describe the role of representative democracy, it does so by making a number of assumptions:
- **Single-dimensional Voting.** First, the median voter model assumes that voters are basing their votes on a single issue. In reality, representatives are elected not based on a single issue but on a bundle of issues. Individuals may be located at different points of the voting spectrum on different issues, so appealing to one end of the spectrum or another on some issues may be vote-maximizing. For example, if the median voter on most issues happens to advocate a lot of spending on defense, then politicians may position themselves toward high spending on defense to attract that median voter on all the other issues.
- At the same time, if voter preferences on different issues are highly correlated, voting may end up close to single-dimensional. That is, if all voters who want small defense spending also want more spending on education, more spending on health care, and greater benefits for the unemployed, and all voters who want large defense spending also want less spending on education, less spending on health care, and fewer benefits for the unemployed, then voting may in effect be single-dimensional even with multiple issues.
- Only Two Candidates. Second, the median voter model assumes that there are only two candidates for office. If there are more than two candidates, the simple predictions of the median voter model break down. If all three candidates are at the median, then moving slightly to the left or right will increase the votes of any one candidate (since she will get all of one end of the spectrum), while the other two candidates split the other end. Indeed, there is no stable equilibrium in the model with three or more candidates because there is always an incentive to move in response to your opponents' positions. There is never a set of positions along the line where one of the politicians can't increase his or her votes by moving.

Assumptions of the Median Voter Model

- No Ideology or Influence. Third, the median voter theory assumes that politicians care only about
 maximizing votes. In practice, politicians may actually care about their positions and not simply try to
 maximize their votes. Moreover, in practice, politicians with ideological convictions may be able to shift the
 views of voters toward their preferred position. Ideological convictions could lead politicians to position
 themselves away from the center of the spectrum and the median voter.
- **No Selective Voting.** Fourth, the median voter theory assumes that all people affected by public goods vote, but in fact only a fraction of citizens vote. Even if the views of citizens on a particular topic are evenly distributed, it may be the most ideologically oriented citizens who do the voting. In that case, it could be optimal for a politician to appeal to likely voters by taking a position to the right or left of center, even if this position is not what is preferred by the majority of citizens (including both voters and nonvoters).
- **No Money.** Fifth, the median voter theory ignores the role of money as a tool of influence in elections. Votes are the outcome of a political process, but there are many inputs into that process. One key input is resources to finance reelection campaigns, advertisements, campaign trips, and other means of maximizing votes.
- **Full Information.** Finally, the median voter model assumes perfect informa- tion along three dimensions: voter knowledge of the issues; politician knowledge of the issues; and politician knowledge of voter preferences. All three of these assumptions are unrealistic.

Lobbying

- These problems of information and the advantages of money make it likely that elected representatives will be lobbied by highly interested and informed subgroups of the population. Lobbying is the expending of resources by certain individuals or groups in an attempt to influence a politician.
- Politicians find it in their interest to listen to lobbies for two reasons. First, these groups can provide
 relevant information about an issue to an uninformed politician: when particular subgroups have a
 strong interest in a complicated issue, they also typically have a thorough and deep understanding of
 the issue. Second, these groups will reward politicians who support their views by contributing to the
 politicians' campaigns and getting group members to vote for the politicians, which can help the
 politicians' overall vote maximization.
- In principle, lobbying can serve two useful roles: providing information and representing intensity of
 preferences. Indeed, given the potential inefficiency of the median voter outcome, some amount of
 lobbying is probably optimal. The problem that arises with lobbying is that when there is an issue that
 particularly benefits a small group and imposes only small costs on a larger (perhaps even majority)
 group, lobbying can lead politicians to support socially inefficient positions.
- The key point to recognize here is that large groups with a small individual interest on an issue suffer from a free rider problem in trying to organize politically. Small groups with large individual interest, however, may be able to overcome this problem, leading to a socially inefficient outcome.

Evidence on the Median Voter Model for Representative Democracy

- While the median voter model is a potentially powerful tool of political economy, its premise rests on some strong assumptions that may not be valid in the real world. A large political economy literature has tested the median voter model by assessing the role of voter preferences on legislative voting behavior relative to other factors such as party or personal ideology.
- Studies of this nature have provided mixed conclusions. On the one hand, the preferences of the median voter clearly matter: where the median voter is more conservative, politicians vote more conservatively. The median voter model is therefore a sensible starting point for modeling politician behavior.
- On the other hand, the preferences of the median voter do not completely explain legislator voting behavior. There is strong evidence that legislators consider their own ideology when they vote on policies and seem not only to cater to the median voter in their district or state but also to pay particular attention to the position of their own "core constituency".

Public Choice Theory: The Foundations of Government Failure

- Theoretical policy analysis assumes a government intent on maximizing social welfare. Similarly, we have discussed the assumption that in both direct democracy and representative democracy, politicians will ultimately strive to represent the will of the people.
- Starting in the 1950s, however, a school of thought known as public choice theory began to question this assumption. Begun by James Buchanan and Gordon Tullock (the former of whom won the 1986 Nobel Prize), public choice theorists noted that governments often do not behave in an ideal manner, so that the traditional assumption of benevolent social-welfare-maximizing government may not be appropriate.
- In this section, we review some of the important sources of government failure, the inability or unwillingness of the government to act primarily in the interest of its citizens.

Size-Maximizing Bureaucracy

- Some of the earliest critiques of idealist conceptions of government began with the idea
 that bureaucracies, organizations of civil servants in charge of carrying out the services of
 government, might be more interested in their own preservation and growth than in
 carrying out their assigned missions efficiently.
- In 1971, William Niskanen developed the model of the budget-maximizing bureaucrat. In this model, the bureaucrat runs an agency that has a monopoly on the government provision of some good or service. Niskanen notes that while the private sector rewards its employees for efficient production, a bureaucrat's salary is typically unrelated to efficiency. In Niskanen's model, a bureaucrat's compensation (wages, benefits, status, quality of support staff, and so on) is based on the total measurable output of his bureaucracy.
- The goal of the bureaucrat is therefore to maximize the size of the agency he controls, and thus maximize its budget, not to choose the level of service that maximizes efficiency. Even if the larger town government knows that the bureaucrat is pursuing a self-interested, inefficient goal, it is hard to enforce efficient production in the agency because the bureaucrat knows much more than the town government knows about the true cost of the service he is providing.

Private vs. Public Provision

- The key question raised by this discussion is whether goods and services are provided more efficiently by the public or the private sector. For the production of purely private goods and services, such as steel, telecommunications, or banking, it seems abundantly clear that private production is more efficient.
- Correspondingly, a large literature finds that when state-owned companies are privatized—that is, sold to private (presumably) profit-maximizing owners efficiency improves dramatically, and a smaller company is required to produce the same level of output.
- Several studies have investigated the sources of the efficiency gain from privatization, and they conclude that the productivity increase from installing new, profit-oriented management in place of government-appointed bureaucrats is the source of most of the gains in efficiency. Indeed, in privatized firms that retain their government managers, productivity gains are not nearly as large as when new managers are brought in.

Problems with Privatization

- The strong presumption of the benefits of privatization implied by the Niskanen model, however, is subject to
 two limitations. First, some markets may be natural monopolies, markets in which, because of the nature of
 the good, there is a cost advantage to have only one firm provide the good to all consumers in a market.
 Examples of such markets are those for utilities such as water, gas, or electricity.
- The provision of natural monopoly goods requires sufficient scale or size of the producer: it is not efficient for, say, five or six water companies to lay the pipes for water delivery all over town. The high level of the fixed costs associated with the provision of natural monopoly goods leads to economies of scale, whereby the average cost of production falls as the quantity of the output increases. Thus, in natural monopoly markets, only one firm will exist in the private market equilibrium.
- As a result, in natural monopoly markets, private provision will not be associated with competitive pressure; privatization in such markets can therefore lead to higher costs to consumers than does government provision.
- In natural monopoly markets, therefore, pure privatization may end up costing consumers more than a middle ground option of contracting out, an approach through which the government retains responsibility for providing the good or service, but hires private sector firms to actually provide the good or service. Governments can harness the forces of competition in this context through competitive bidding, asking a number of private firms to submit bids for the right to perform the service or provide the good. In principle, the government then grants the right to provide the good or service to the private entity that can provide the good most efficiently. When the government contracts out, it exploits its own monopoly power for good, not evil, by finding the most efficient provider and delivering the savings to the taxpayer.

Problems with Privatization

- In practice, however, the bidding in contracting out is often far from competitive. In many situations, government bureaucrats may exploit their power and award contracts not to the most efficient lowest-cost bidder, but to the one that assists them in maximizing their own bureaucratic power (or, in the case of kickbacks and bribes, personal wealth).
- The application shows some examples of the problems with contracting out. If
 these problems are severe, then pure government or pure monopoly private
 provision may be more efficient than contracting out. Thus, whether contracting
 out is best depends on the nature of the contract.
- In addition, while privatization of goods markets may increase efficiency, it is not clear that private provision of social services, such as health insurance, cash welfare, or public safety, is more efficient than public provision.
- Markets for social services often involve market failures that impede efficient private provision, such as the externalities of health insurance.

Leviathan Theory

• Niskanen's theory assumes that individual bureaucrats try to maximize the size of their own agencies and that a larger government tries to rein them in. In contrast, Brennan and Buchanan (1980) see these two entities as one monopolist (which they call "Leviathan") that simply tries to maximize the size of the public sector by taking advantage of the electorate's ignorance. Under this theory, voters cannot trust the government to spend their tax dollars efficiently and must design ways to combat government greed, such as tying the government's hands in terms of taxes and spending or ensuring that politicians face electoral pressure to deliver public services efficiently.

Corruption

The theory of size-maximizing bureaucrats and Leviathan governments
describes how governments will take action to maximize their size and power in
carrying out their legitimate functions. Even more problematic is corruption, the
abuse of power by government officials seeking to maximize their own personal
wealth or that of their associates.

Takeaways

- In theory, a government can efficiently finance public goods by simply asking individuals to pay their valuation of the good (Lindahl pricing).
- In practice, such a solution faces the problems of preference revelation (individuals not honestly reporting their preferences), preference knowledge (individuals not knowing their preferences), and preference aggregation (the government being unable to collect data on each individual's preferences).
- One way to aggregate preferences is through direct democracy, where votes are directly cast on particular issues. This voting mechanism will consistently aggregate preferences only if preferences are restricted to a particular form (single-peaked preferences).
- If preferences are single-peaked, the option chosen will be the one preferred by the median voter. This will not be the efficient outcome, however, if voters on one side or another of an issue have particularly intense preferences.
- Representative democracies will also support the policy preferred by the median voter if politicians are
 vote-maximizing and if other fairly restrictive assumptions hold. In practice, it appears that factors such as
 ideology, not just vote maximization, are important in determining legislator behavior.
- Public choice theory directly models the preferences of legislators and the government failures that can
 arise when legislators pursue their own interests rather than the common good. Government failures such
 as corruption can have serious negative ramifications for the economic well-being of societies.