

Lecture # 18 -- Limits to Government Intervention

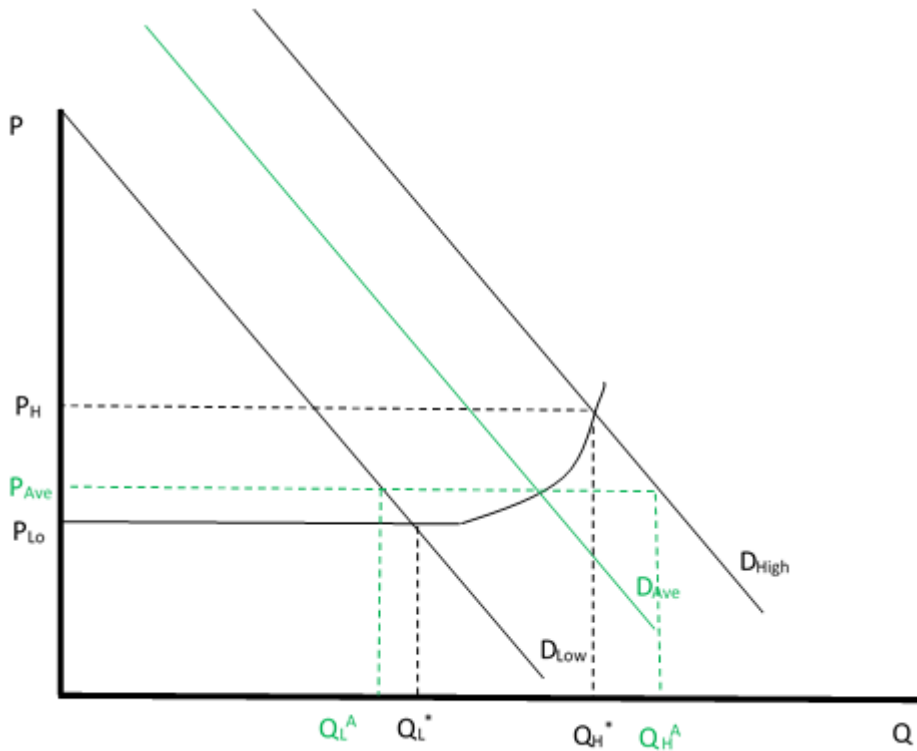
We'll begin class on Wednesday finishing the material on public sector pricing. The remainder of the class will focus on the roles of the public and private sector in the economy. Much of the class will be discussion based. The notes below highlight key points from the reading, but may differ from what we end up discussing during class.

I. Alternative Pricing Strategies

- We began class continuing our discussion of other pricing strategies for monopolies besides average cost pricing.
- Two-part tariff
 - Includes a flat fee, such as a membership fee, to use a service, plus a per-unit charge based on consumption.
 - The flat fee helps cover fixed costs
 - The per-unit charge can be based on marginal costs.
 - Charging consumers per unit gives them proper incentives to conserve.
 - But, the flat membership fee might discourage some low income users.
 - Using subsidies for the flat fee can address this concern.
 - For example, low income families could be exempt from the flat rate fee.
 - The flat fee will then need to be higher for other families to cover the fixed costs.

- Price discrimination
 - Charging different prices to different buyers of the same product.
 - Price discrimination allows the monopolist to capture more consumer surplus.
 - Examples:
 - Perfect Price Discrimination – Charging a different price to each consumer.
 - Each consumer is charged her reservation price -- the maximum she is willing to pay for each unit bought.
 - Allows the producer to capture all consumer surplus
 - However, difficult to implement in practice, as requires negotiating a price with each buyer.
 - Perfect price discrimination applies when prices are negotiated between buyers and sellers, such as buying a car.
 - Segmenting the market into two or more groups with different demands for a product in order to charge different prices to each group (e.g. student discounts, senior citizen discounts).
 - The article on pricing of popular community college courses in California is an example.
 - Peak pricing
 - Here, we segment the market by time. A higher price is charged during periods of peak demand.
 - Peak pricing allows the producer to capture higher willingness to pay when demand is high
 - Such as a cold beverage on a hot summer day.
 - Peak pricing addresses two issues
 - Facilities need to be priced to encourage efficient use
 - Sufficient capacity is needed to meet peak demand (e.g. rush hour)

- Marginal cost starts flat, but increases as congestion becomes a problem
 - If a single price were set, it would be based on average demand (in green)



- Note that, with a single price, usage is too high during the peak period and too low at other times
 - The quantity used in peak demand is Q_H^A , and the quantity used off-peak is Q_L^A .
 - Setting a high price in peak demand (P_H) and lower price off-peak (P_L) increases usage off-peak and reduces the quantity demanded in peak times.
- Potential issues
 - May lead to overcrowding near thresholds
 - E.g. people who try to ride the subway right before rush hour fares begin
 - Only works if peaks are well-defined and predictable
 - Distributional issues
 - Low income people are more likely to be priced out of peak times
- The articles on Uber's pricing strategy provides an example.

II. Public vs. Private Sector Provision

- Our focus thus far has been on regulating markets to correct market failures. However, might there also be a role for the government to be involved in production of a good or service?
 - If so, it is likely that the government acts as a monopolist, so that the same pricing strategies discussed earlier apply here as well.
 - Examples where the government acts as a monopolist include mail delivery and public transportation.
 - Often done through independent agencies
 - E.g. Massachusetts Port Authority, Corporation for Public Broadcasting
 - Typically in settings where the market would only support one producer.
- In addition, one can also consider cases where the government is a sole buyer (that is, a monopsonist). Examples include national defense and NASA.
- Question to discuss: When is it appropriate for the government to be the monopoly provider?
 - Is this simply a case of market failure? That is, does the government step in because no one else will provide the service? Are there other reasons?
 - The text argues that moral hazard is an argument for government provision
 - Consider using a private army, rather than a government-run army. Conflicting incentives in the private sector may raise questions about loyalty and reliability.
 - The text uses a double market failure argument to justify government provision:
 - First, evidence that markets have failed
 - Second, evidence that other generic policies discussed previously will lead to an inferior outcome.
 - For example, if it is difficult to set up a policy that aligns the incentives of private actors with the goals of society.
 - This relates to the argument in the *New York Times* article about whether the goals can be clearly stated.

- What are the tradeoffs faced when deciding to produce a good or service using the public versus private sector?
 - We've already discussed the possibility of regulated natural monopolies. Thus, a privately owned monopoly can be regulated.
 - What about efficiency? Are public firms less efficient than private firms?
 - What motivates private sector firms to do better?
 - Do all private sector firms face these incentives?
 - For example, what incentives does a regulated natural monopoly have to reduce costs?
 - Do public sector firms face the same incentives?
 - Are goals clear cut?
 - Is contracting out a possibility?
 - The private sector can contract with the government to provide needed services.
 - While the service may be provided in a way consistent with government goals, competition for the contract provides incentives for efficiency.
- What objectives might a government-run monopoly have?
 - Note that achieving multiple goals simultaneously often is not possible. For example, maximizing revenue would require setting a price higher than marginal cost, so that quantity of service could be higher.
 - One way to balance these competing interests is through price discrimination: charging different prices to different sets of consumers.
 - Public sector organizations may also be constrained by limits on what they are allowed to do.
 - Consider, for example, limits faced by the U.S. Post Office
- At the same time, conditions may change, making the line between private and public provision difficult to establish. The reading on Pacific Gas and Electric (PG&E) provides an example.
 - Under California law, PG&E has been held liable for its role in wildfires in 2018.
 - As a result, they have filed for bankruptcy, and are now turning off power in windy conditions to help prevent further blackouts.
 - The article notes that, because of changes to electricity markets, the goals of a publicly regulated utility have become more complicated. They have to:
 - Provide electricity to everyone in their service area
 - Manage a diverse range of energy sources
 - Change how they generate power in response to climate change regulations
 - Adapt to changing climate, such as increased risk of wildfires
 - We will discuss whether these changes make public sector ownership of utilities more desirable.

III. Incentives of Public Officials

- In markets, potential profits help determine which goods and services are provided
- For government officials, elections provide guidance as to what services are demanded.
- What incentives do public servants have?
 - Do the incentives of bureaucrats differ from elected officials?
- Rent seeking and public choice
 - The *Economist* article notes the negative effects of rent seeking.
 - Why does rent seeking occur?
 - What influences who is likely to become politically active?
 - How important are public interest versus self-interest?
 - Individuals are more likely to be publicly active when the benefits they get are greater.
 - What is necessary to overcome concentrated interests? The text suggests three possibilities:
 - Attention to the policy from a large segment of voters
 - Low public trust in concentrated interests
 - Political entrepreneurs willing to promote diffuse interests
- Incentives faced by bureaucracies
 - In the private sector, “getting ahead” means making your business more profitable
 - In the public sector, “getting ahead” focuses on the prerequisites of office, power, prestige, and patronage, because the monetary gains are small
 - Consider, for example, the bureaucrat’s incentive to reduce costs
 - In the private sector, lower costs mean larger profits
 - However, the government cannot earn a profit.
 - If costs are reduced, the bureaucrat in charge does not earn extra income
 - Indeed, the budget for next year may be reduced, making reducing costs ineffective for the bureaucrat.

- Principal-agent problem
 - Aligning organizational goals with the interests of employees is important.
 - Consider, for example, the example from the *NY Times* on police who were rewarded for arrests in Baltimore.
 - Arrests went up, but focus was on small crimes (e.g. violating bicycle regulations).
 - Murder rate did not fall.
 - The principal-agent problem occurs when employers (the principal) and employees (the agent) do not have the same interests
 - As a result, monitoring of the agent is necessary
 - Note that this occurs in both the public and private sectors.
 - Do you think this is a greater problem in the public sector?
- Does a lack of competition reduce innovation?
 - Does this differ at the national and local level?
 - That is, do local governments compete?
 - For example, do voters “vote with their feet” and move elsewhere if they aren't satisfied?

IV. The Role of Voting

- Will voting lead to a stable outcome that reveals true preferences?
- Unfortunately, finding everyone's true valuation can be difficult. Consider the problem of the median voter.
 - Governments often use the results of votes to determine how much value the public places on a public good.
 - A voter will vote yes for a project if their valuation is greater than their share of the payment (e.g. their tax payment).
 - The median voter is the person for whom half of society has a higher valuation, and half has a lower valuation.
 - The median voter theorem states that a project will pass if the median voter's valuation is greater than the cost to that voter.
 - Unfortunately, simple yes-no majority rule voting does not calculate the full value of a public good, and thus does not guarantee that an efficient outcome will occur.
 - The problem is that intensity of preferences is ignored.

- There are other limitations to voting, known as the paradox of voting.
 - For example, the final outcome can depend on how choices are presented.
 - Consider the example in the chapter from the text, which considers a vote for a school budget.
 - Society consists of three groups, with different preferences for spending on education
 - If each vote considers one of two options, with the winner then taking on the remaining option, the outcome will depend on the order in which these choices are presented.
 - Even worse if we allow for strategic voting, or ‘sophisticated voting’ when people realize that voting against one’s own preferences in early rounds can lead to a more desired outcome in the final round.
 - This phenomenon, known as cycling (e.g. inconsistency of outcomes depending on order), occurs because of double-peaked preferences
 - Effective schoolers in the text are an example of double-peaked preferences.
 - Rather than preferring high, medium, low, they prefer low spending to a mid-range outcome
 - Why might this occur?
 - They prefer high spending on education. If the community doesn’t provide it, they can enroll their children in private schools. If they do, they won’t want to pay much in taxes for public schools.
- Leads to Arrow’s general possibility theorem
 - Any rule of voting that satisfies a basic set of four fairness conditions can lead to an illogical result. The four are:
 - Each person has transitive preferences over the options (axiom of unrestricted domain). Recall the principle of transitivity; if A is preferred to B and B is preferred to C, then A is preferred to C as well.
 - If one alternative is unanimously preferred to a second, then the rule of choice will not select the second (axiom of Pareto choice).
 - The ranking for any two alternatives should not change if a third alternative is introduced (axiom of independence).
 - The rule should not allow one person dictatorial power over the other members deciding (axiom of non-dictatorship).