

Lecture # 18 –Roles for Government Intervention

I. Government as a Monopolist

- 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.
- 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?
 - If objectives are complex, so that difficult to align objectives with profits, public provision may make sense.

- What objectives might a government-run monopoly have?
 - Possibilities include
 - Maximizing quantity and/or quality of service
 - Ensuring equitable distribution of services
 - Minimizing costs
 - Maximizing revenues
 - Note that achieving all these goals simultaneously will not be 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.
 - The article on utilities in California considers whether private or public organizations are better able to manage risk.
 - 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
 - Finally, consider differences in the incentives faced by government and firms. Incentives to minimize costs come not from competition, but from voters, in the case of government agencies.

II. Efficiency and Equity

- Thus far, we have focused only on efficiency. Might the government have a role to play even if the market can allocate resources efficiently?
 - Markets allocate resources based on *ability to pay*. In some cases, this may lead to outcomes that society finds unacceptable.
 - The key point is that efficiency alone is not enough to rank alternative allocations of resources.
 - Explicit value judgments are necessary.
- What do we mean by efficiency?
 - When economists talk about efficiency, they are talking about Pareto efficiency.
 - A Pareto efficient allocation occurs when no one person can be made better off without making someone else worse off.
 - This is the standard goal of economists. If not Pareto efficient, we are being wasteful, because someone could be made happier without making someone else less happy.
 - First Theorem of Welfare Economics – Competition results in a Pareto efficient allocation.
- But many government programs are designed to make some people better off and others worse off. How can we think of those?
 - Kaldor-Hicks efficiency (a/k/a potential Pareto efficiency) occurs when resource allocation makes some better off and some worse off, but results in positive net benefit so that the gainers could, in theory, fully compensate the losers.
 - The trade policy case is an example.
 - But note that implementing compensation causes additional distortions in the economy.
 - Moreover, compensation isn't guaranteed to occur.
 - Example: a policy generates \$100 in benefits to person A, \$90 in costs to person B. Person A can compensate B fully for their loss and still be better off.
- Note that the First Theorem of Welfare Economics only guarantees that an efficient outcome will occur in a perfectly competitive market. *It does not say whether or not the outcome will be equitable.*
 - Note how this relates to the Kaldor-Hicks notion of efficiency.
 - By making total income larger, compensation is possible so that no one is hurt by a policy. But compensation is unlikely to occur without policy intervention.
- Thus, we face a tradeoff between efficiency and equity.
 - Governments may choose to intervene in an economy to improve equity, even if the intervention is not efficient.
 - Essentially, efficiency is about how big the economic "pie" is, and equity is about how slices of the pie are divided up.

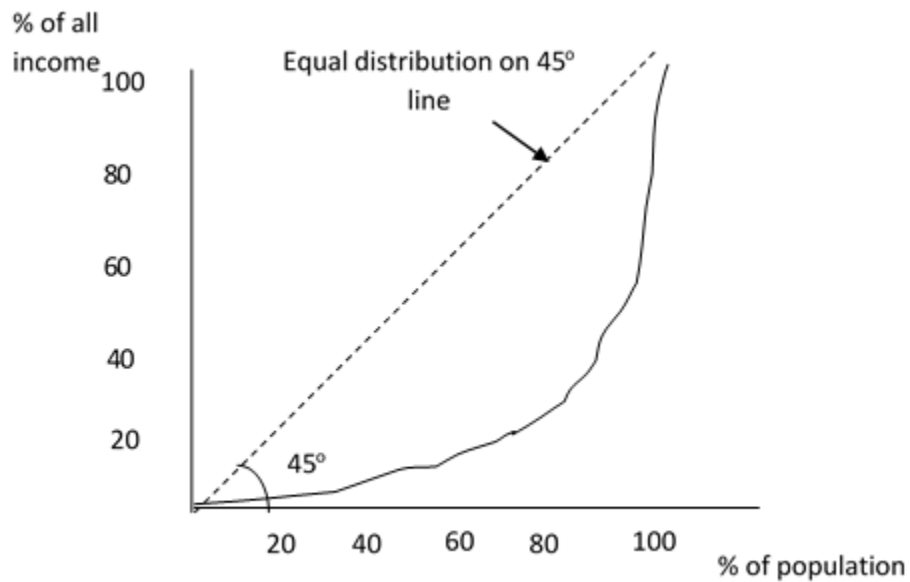
- What is equity? What equity goals can policy try to achieve? Possible goals include:
 - Equity of endowments: considers fairness of the initial distribution of wealth and resources
 - E.g. should inheritances be taxed, so that each generation starts on level footing?
 - If so, are there other advantages parents give to children (e.g. better schools, health, etc.). Is full equity of endowments possible?
 - Equity of process: considers whether everyone has equal opportunity to earn income commensurate with their abilities
 - Analogy: Equity of endowments is about the characteristics of runners at the start of a race. Equity of process is about the rules of the race: does everyone face the same conditions?
 - Equity of outcomes: Looks at market outcomes.
 - If looking at outcomes, how much equity is fair?
 - Possible goals:
 - Utilitarian social welfare maximizes the sum of each individual's utility
 - Because of diminishing marginal utility, the marginal utility from an extra dollar of income will be greater for a poor person than a rich person.
 - Thus, utility theory provides theoretical justification for at least some redistribution.
 - Compare to a Rawlsian criterion: the welfare of society depends only on the utility of the person with the lowest utility.
 - The philosophy behind Rawls' criterion follows from the notion of original position
 - Imagine that, before you are born, you have no idea what your position in society will be. What distribution of income would you like society to have?
 - Rawls refers to this as the "veil of ignorance"
 - Rawls assumes people are risk averse, and thus would thus choose an outcome that raises the welfare of the least advantaged
 - Critiques:
 - Does this provide incentives to create wealth?
 - Are people actually that risk averse?
 - People might be willing to take chances.
 - In-between positions are also possible
 - E.g. place greater weight on outcomes for lower-income people, but not only focus on them

- The article on license plates in China shows the implications of different methods of allocation.
 - In this case, Chinese cities limit the number of license plates available.
 - Since there is a scarce supply, the allocation of plates must be decided somehow.
 - Beijing uses a lottery
 - Thus, allocation depends on luck
 - The value a potential owner places on a license is not reflected in the decision.
 - This makes a black market possible.
 - Shanghai auctions license plates
 - The auction uses market forces. Those willing to pay the most (e.g. valuing a license plate the most) win the auction.
 - But, this limits license plates to those with high incomes
- The articles on price gouging after natural disasters shows the implications of these choices.
 - The need for reconstruction after a disaster drives up the price of building materials (and of labor to do the work). It also increases prices for other services needed, such as hotel rooms
 - This higher price serves as a signal of the increased value placed on these goods and services.
 - It helps to allocate resources to areas of greater need.
 - While this is efficient, it also means that those who are rebuilding need to pay more. As we'll discuss in class, this is a concern to many people. Thus, we can consider alternatives to raising prices.

III. Measuring Inequality

- While we cannot measure social welfare directly, various indicators of both overall well-being and inequality are available.
 - Each has various strengths and weaknesses
- The traditional measure of macroeconomic performance is Gross Domestic Product (GDP).
 - GDP is the sum of the money values of all final goods and services produced in the domestic economy during a year.
 - Does not include sales of intermediate goods and services.
 - Only includes work done within a country's borders
 - Only includes market activities,
 - Note, for example, that this excludes the value of protecting the environment
 - In contrast, the health services used to help someone recover after an accident increase GDP, suggesting the accident makes us better off.
 - Similarly, unpaid work not counted in GDP
- Other indicators try to aggregate multiple measures of well-being
 - The [U.N. Human Development Index](#) (HDI)
 - Combines into an index: (1) GDP per capita, (2) Life expectancy at birth, (3) School enrollment
 - [Top countries in 2021](#)
 - Switzerland
 - Norway
 - Iceland
 - Hong Kong
 - Australia
 - The United States is number 21

- Measures of inequality
 - Lorenz curve – A curve that plots the percentage of national income earned by various income groups.
 - Constructed by ranking population from lowest to highest based on income
 - Tells us what percentage of income goes to the poorest X percent of the population
 - Perfect equality is along a 45° line
 - A larger area between the 45° line and the curve represents greater inequality



- We can measure the amount of inequality shown by the Lorenz curve using the Gini coefficient.
 - The Gini coefficient equals twice the area of the distance between the curves in the Lorenz diagram.
 - If the area equals 0, Gini coefficient = 0 => no inequality
 - If the area equals 0.5, Gini coefficient = 1 => total inequality (all income held by one person)
 - Sample data
 - Most equal countries (year of survey):
 - Slovak Republic (2019) 23.2%
 - Slovenia (2020): 24.0%
 - Belarus (2020): 24.4%
 - Ukraine (2020): 25.6%
 - Moldova (2021): 25.7%
 - Least equal countries (year of survey):
 - South Africa (2014): 63.0%
 - Namibia (2015) 59.1%
 - Suriname (1999) 57.6%
 - Zambia (2015) 55.9%
 - Other countries of interest:
 - United States (2021): 39.8%
 - China (2020): 37.1%
 - India (2021): 34.2%
 - France (2020) 30.7%
 - Canada (2019) 31.7%
 - South Korea (2016) 31.4%
 - Norway (2019) 27.7%
 - To see the effect of redistribution, we can compare Gini coefficients before and after redistribution
 - United States Gini coefficients before and after transfers

Year	Before transfers	After transfers
2019	0.505	0.395
2017	0.5056	0.390
2012	0.506	0.389
2000	0.476	0.357
1989	0.450	0.348
1974	0.406	0.316

- Of course, it is also important to consider the causes of inequality
 - If there are underlying causes, such as a lack of access to education or low assets making investment difficult, addressing the underlying causes may be more valuable than simply redistributing income.