Economics of Politics Ch.1: Government Failure

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Government Failure: Definition

- What is government failure? How should it be defined?
- Market failure
 - The case when the Invisible Hands Theorem (the first fundamental theorem of welfare economics) fails to hold due to, e.g., externalities, public goods, imperfect competition, and asymmetric information.
- No formal definition of government failure has been provided.
 - Is it appropriate to define it as the case when government cannot achieve a Pareto efficient allocation?
 - Government usually faces the second best situation, where Pareto efficient allocations are naturally impossible to achieve owing to technical reasons such limited availability of policies.
- Government failure occurs if government will not achieve a Pareto improvement though being able to do it [Besley and Coate (AER, 1998)].

Government Failure: Diagrammatic Exposition

- What is the utility possibility frontier? Define it.
- Suppose that market equilibrium occurs at A due to market failure.
- The shaded area is the set of utilities that can be achieved within available policies.
- Does government failure occurs when B is realized? How about C, D, and F?



Distributional concerns

- Though government achieves an allocation that cannot be Pareto dominated within its available policies, the income distribution may be unfair and socially permissible, such as point D in figure 1.
- Should we call such a case government failure?
 - Consult Besley (Ch.1) and discuss his argument.
- Social-choice view of government failure
 - A group or a organization like government may fail to make rational decisions even when each individual in it can do so.
 - Rational choice: complete and transitive preferences
 - Recall Arrow's impossibility theorem
 - Review: Paradox of voting and single-peaked preferences in the single-issue case
 - McKelvy's Chaos theorem (skip, might be taught in Public Choice)
 - Anything can happen in the two or more-than-two issue case

A voting model of public goods provision 1

- ► Voters i = 1, 2, · · · , K are deciding on a provision of a public good, G, by majority voting (K ≥ 3: odd #)
- ▶ Voter *i*'s utility is $U_i = B_i(G) T_i$, where B_i denotes benefits with $B'_i > 0$ and B''_i while T_i does tax burdens.
- The cost of provision is C(G) = G.
- Pareto efficient allocation
 - An allocation $(G, T_1, T_2, \cdots, T_K)$ is Pareto efficient if it maximizes $B_1(G) - T_1$ subject to $\sum_{i=1}^K T_i \ge G$ and $B_j(G) - T_j \ge \overline{U}_j$ for all $j \ge 2$, taking some $\overline{U}_2, \overline{U}_3, \cdots, \overline{U}_K$ as given.
 - A Pareto efficient allocation is such that $G = G_0$ and $\sum_{i=1}^{K} T_i = G_0$, where $\sum_{i=1}^{K} B'_i(G_0) = 1$ (Samuelson condition).

A voting model of public goods provision 2

- Voting behavior
- ► Assume uniform tax burdens among voters, T_i = G/K
- ► G_i: voter i's most preferred quantity of a public good, maximizing B_i(G) - G/K.
- The FOC: $B'_i(G_i) = \frac{1}{K}$
- If all voters have single-peaked preferences, the group preferences are complete and transitive under majority voting.

Single-peaked preferences



Figure 2: Single-peaked Preferences

Condorcet Winner

- Condorcet Winner: an alternative that is never defeated by any other alternative in a pairwise majority voting
- ► Suppose a set of alternatives is A = {G₀, G₁, G₂, · · · , G_K} and consider repeating pairwise votes to make a decision.
 - 1. Pick up two arbitrary alternatives from \mathcal{A} and put them to a majority vote to decide the winner.
 - 2. Pick up a new alternative from \mathcal{A} and put it on the ballot against the winner in the previous vote.
 - 3. Repeat this process in 2 until all alternatives are put to votes and decide on the alternative that survived.
- Assume sincere voting (cf. strategic voting)
- The survivor is the Condorcet winner when every voter's preferences are single-peaked.
 - Otherwise, what happens? Recall the paradox of voting.

The median voter theorem

- When voting takes place over a single issue (i.e. the policy space is uni-dimensional) and voters' preferences are single-peaked, the Condorcet winner coincides with the median voter's most-preferred alternative.
- Who is the median voter?
 - Suppose without loss of generality G₁ ≤ G₂ ≤ G₃ ··· ≤ G_K. Then, the median voter is voter m = (K + 1)/2 and the equilibrium provision is equal to G_m such that B'_m(G_m) = 1/K.
- What would happen if the set of alternatives are not uni-dimensional?
 - Generally, no Condorcet winner exists. But with voters having very special preferences, its existence is guaranteed.

Constrained Pareto Efficiency

- Is the voting equilibrium inefficient?
 - Generally, G_m ≠ G_o. The equality holds if the median voter's marginal utility coincides with the average.
- Does the government failure occur? (Wittman (1989))
 - The equilibrium is not Pareto efficient. But this does not mean government failure occuring, because it is constrained Pareto efficient.
- Constrained Pareto efficiency
 - Given some constraints, technical or informational, the allocation achieved is "constrained" Pareto efficient if there is no feasible allocation under the constraints that produces a Pareto improvement.
 - In this example, the constraint is that the government has to use uniform taxation to finance the cost of public good provision.
- Government failure does not occur when a constrained Pareto efficient allocation is realized.

Controversy over government failure 1

- Chicago vs. Virginia
 - Chicago school traditionally insists that the invisible hands functions in the political arena as well as in the markets, whereas Virginia school does that government behaves like Hobbs' Liviathan, who chooses policies for its own sake.
- Chicago School: Stigler, Becker, Wittman, Peltzman, etc.
 - Government failure never occurs at least in the long run.
 - Political competition removes any inefficient policies, institutions, and government like market competition does so.
 - Suppose that a current government fails to achieve a constrained Pareto-efficient allocation.
 - Then, in the next election, the incumbent government should be replaced by a candidate or a party that promises a Pareto-improving policy, since it will obtain a majority of votes;
 - Or even during the term of the current government, some interest groups may press it to reform its policy to achieve a constrained Pareto-efficient allocation.

- 'What is' is efficient.
 - Policies, politicians, institutions that appear to be inefficient will be gone sooner or later, and only efficient ones will survive.
- Government chooses the most efficient way of redistribution and economists' policy recommendation is meaningless.
 - Why is a price support policy is changed into a lump-sum subsidy scheme, following the economists' standard advice?
 - Because such a reform is *not* Pareto-improving unlike the argument.
 - Owing to informational constraint of government, it is impossible or very costly for the government to distribute income through lump-sum subsidies in the same way as it does through the price-support policy.
 - The economists' standard argument fails to capture such a constraint facing the government.

Controversy over government failure 3

- ► Virginia (Public Choice) School: Buchanan, Tullock, Downs, etc.
 - Government failure persists even in the long run.
 - Government behaves like Hobbs' Liviathan, who chooses policies for its own sake.
 - Voters' rational ignorance and fiscal illusion make it difficult for citizens to discipline politicians by elections.
 - In elections, it is not rational for individual voters to collect information about candidates, their past performances and campaign promises at a cost.
 - Because each of their votes has almost zero probability to change the outcome of the elections with.
 - It is rational for voters to be ignorant about candidates.
 - Voters often have fiscal illusion, with which they prefer budget deficits to tax increases, in spite of both having the same impact on their lifetime income.
 - Citizens need to constrain government's behavior by law, especially by constitution.

- If property rights are well-defined and there are no transaction costs, economic agents will contract to achieve an efficient outcome, irrespective of who holds the property rights on particular assets.
- What is the property right?
 - The ability to freely (i.e. without penalty) exercise a choice over a good or service (Allen, 1999)
- Example: the right to sunlight vs. the right to building construction
- When does Coase Theorem fail to hold?
 - Interested parties can write only incomplete contracts.
 - Some contracts lack commitment and are not enforceable.
 - Some contracts are not verifiable.
 - Court cannot verify if the terms have been excuted exactly as written.

Political Coase Theorem

- Political Coase Theorem (Acemoglu, 2003)
 - An extension of Coase Theorem to the political sphere suggests that political and economic transactions create a strong tendency towards policies and institutions that achieve the best outcomes given the varying needs and requirements of societies, irrespective of who, or which social group, has political power.
- Conditions fro Political Coase Theorem to hold:
 - the rights to political assets such as policy making, voting, lobbying, etc. are well defined
 - It is often not clear who has the right to policy making (politician vs. bureaucrats), who is the decisive voter (due to uncertain turnouts).
 - political actors can (implicitly) conclude complete contracts
 - Most political contracts such as campaign promises lack commitment.
 - Voters are not committed to reelecting government who accomplished promises.