Lecture I:

Political Economy and Public Finance: Overview

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- Why should economists care about political economy issues?
  - To understand the proper role of the state, it is important to appreciate how incentives work in the public sector.
  - Could inform constitution design issues
  - Helps to appreciate the relevance of normative models of policy

- Traditionally economists have looked at government through a paradigm which ignores the performance of government.

- Political economy – new and old
  - The main influential strand of thinking in economics has been Public Choice theory
  - But
    * It has rarely specified in detail the incentive problems that government faces
    * It throws around terms like government failure and political failure very loosely

    * It works with an excessively pessimistic view of politics.

- In contrast:
    * My approach is heavily influenced by thinking about politics as a principal agent problem.
    * Also by worrying about selection issues
- Clearly government can work in both the public and private interest, but the question is whether the agency problems can be solved and what are there implications.

Comepting Views of Government

- Government in the public interest (Pigou)
  - the market failure paradigm
  - the notion of optimal income distributions
    - link to social choice theory.
- Government as a private interest (Buchanan)
  - rent-seeking
  - log-rolling

– corruption

- The public choice literature is that it was born as critique of one of the most admired political systems in the world (the U.S.)
  - This contrasts with Hayek's critique of socialism which put much more weight on the problem of omniscience than the problem of non-benevolence.
  - It is has a special poignancy in view of the triumph of liberal democracy.
  - It is now appreciated that the institutions of liberal democracy are no panacea.

The public choice approach (Buchanan)

- "Individuals must be modeled as seeking to further their own narrow-self interest, narrowly defined, in terms of measured net wealth position, as predicted or expected." (Buchanan (1989, page 20)).

- This view is shared by Chicago political economy (e.g. Peltzman).

- Also David Hume!

  "In contriving any system of government and fixing several checks and controls of the constitution, every many ought to be supposed a knave and to have no other end, in all his actions, than private

interest. By this interest, we must government him, and by means of it, nothwithstanding his insatiable avarice and ambition, co-operate to the public good." (Hume (1875) page ...)

- "To improve politics, it is necessary to improve or reform rules, the framework within which the game of politics is played. There is no suggestion that improvement lies in the selection of morally superior agents who will use their powers in some "public interest"" (Buchanan (1989, page 18)).

My View (owes a lot to Madison)

- Motivated agents – those who are willing to perform acts of public service are a part of the economic and political landscape.

- A key issue is to how benefit from such motivated agents.

- This means moving beyond a very narrow paradigm based on pure self-interest

- This means that *selection matters*

- "The nature of the workings of goverment depends ultimately on the men who run it. The men we elect to office and the circumstances we create that affect their work determine the nature of popular government. Let there be emphasis on those we elect to office." V.O. Key (1956), page 10.

Background Facts:

- Increase in size of government – a feature of democracy
- Declining trust?
- Increasing transparency?

Standard Economic Model of Policy

- A community of individuals (citizens) have to make a policy choice denoted by x.

- Feasible set of policies by $\mathcal{A}$.

- Preferences are $V^i(x)$ for $i = 1, ..., N$.

- *Pareto efficiency*. A policy x is said to be Pareto if efficient if there is no other policy in $\mathcal{A}$ which makes every citizen either weakly or strongly better off.

  - Defines a set of policies.

- Welfarist social welfare functions are defined on $\left\{V^i(x)\right\}_{i=1}^N$.
  - These will pick from among the Pareto efficient policies
  - Non-welfarist objectives do not necessarily pick Pareto efficient points.

- This defines a paradigm for good (benevolent) government and has been taught to generations of economics students.

Critiques of the Standard Economic Model

- Substance:
  - Difficulties in defining social welfare
  - Rights based approaches
    - Sen
    - Buchanan
- Relevance
  - Public choice critique:

  - There is no real reason to expect the government to pick a Pareto efficient policy

  - There is even less reason to expect a welfare maximizing policy

  - The economic model is not closed (it does not have a theory of government).

- "It is not sufficient to contrast the imperfect adjustments of unfettered enterprise with the best adjustment that economists in their studies can imagine. For we cannot expect that any State authority will attain, or will even whole-heartedly seek, that ideal. Such authorities are liable alike to ignorance, to sectional pressure and to personal corruption by private interest." Guess who?

Augmenting the Standard Economic Model

I. Process

- Consider a vector of "political actions"
  - $x = P(y)$.
  - $V^i(x, y_i)$
  - We could also allow $\mathcal{A}$ to depend on y.
  - We need to define equilibrium political actions $x = h(P(\cdot))$, $y = f(P(\cdot))$.

- We can then define optimality relative to processes rather than policies:

$$v^j\left(P\left(\cdot\right)\right) = V^j\left(h\left(P\left(\cdot\right)\right), f\left(P\left(\cdot\right)\right)\right).$$

- In principle, the standard economic apparatus can be applied to the study of processes rather than policies

- i.e., efficiency and optimality.

II. Politicians

- The above was rather a disembodied view of th policy process.
- But policy is made by politicians and competition is for political office.
  - $V^i(x, j)$ where j is the identity of the citizen who is in office.
  - $x \in \mathcal{A}^j$.
- One key issue is how politicians view holding office:
  - Pure office holding

$$V^i(x, j) = \begin{cases} v^i(x) + \Delta & \text{if } i = j \\ v^i(x) & \text{otherwise.} \end{cases}$$

- Pure selfish: $V^i(x, j)$ is just the personal payoff from policies (creates a premium from holding office).
- Pure Policy Oriented: $V^i(x, j) = V^i(x)$ with no-indepdent office holding payoff.

- Comptence is captured by $\mathcal{A}^j$.

Bottom Line

- The standard economic apparatus and welfare economic tools are easily adapted to political economy.

- As we will see below, it is fairly straightforward, therefore, to have an account of good government which goes beyond the standard economic model
  - Good and bad decision making processes
  - Good and bad selection – is the right political class being selected?

Modeling Elections

- Downsian model and its variants
- Citizen-candidate model – allows us to think about selection of politicians
- Political agency models – focus on information

Good Government

- Welfare economics provides a foundation for the notion of good government in terms of two criteria
  - efficiency
  - equity
  - there is also the murkier criterion of surplus maximization
- Buchanan works with quite a different paradigm – rooted in classical liberalism

  - government is a contract that should generate a Pareto improvement over the "no government" situation.

- We will not look at three definitions of political failure that are rooted in these possibilities.
  - Pareto Inefficiencies
  - Distributional Failures
  - Wicksellian political failures

Political Resource Allocation and Political Failure

- The Model
  - A community of N individuals has to make a single social decision – whether to build a discrete public project.
  - Project is denoted by $e \in \{0, 1\}$
  - There are two kinds of citizens – those who get a utility of b from the project and those who receive nothing.
  - The citizens who enjoy the project are a fraction γ of the population.

- All citizens have an income of y and the statue costs c. (Assume that $y > \frac{c}{N}$.)
- Observe that $e = 0$ and $e = 1$ are both Pareto efficient policy choices in this setting.
- Utilitarian perspective (same as social surplus in this context.)
- Project is worthwhile if

$$N\gamma b \geq c.$$

- Lindahl-Samuelson rule
- Building the project fails Wicksell's unanymity test.
  - Not true with benefit taxation.

Public Resource Allocation

- Majority rule:

$$e = 1 \text{ if } \gamma \geq 1/2 \text{ and } e = 0 \text{ otherwise.}$$

- The *median voter outcome is always Pareto efficient*.

- The literature is confused about this.

- Majority rule need not coincide with the surplus maximizing outcome if $\gamma < 1/2$ since then the project will not go ahead even though $N\gamma b > c$.

- Majority generates a Wicksellian political failure if $\gamma \geq 1$.

- Corruption
  - The policy maker can earn a private monetary rent of $r > 0$ for building the project whether or not it is worthwhile.
  - (To keep the model closed, we suppose that this is paid as a transfer by some subset of the citizens.)
  - Suppose that
$$r > c/Ny.$$
  - Then the policy maker will implement the project regardless of his personal preferences for it.
  - The policy outcome is, therefore, always $e = 1$.

- The utility of the citizens depends on whether they finance the transfer.

- Suppose that a fraction of $\beta < \gamma$ do this.

- Then those who favor the project and share the cost of the transfer get utility of

$$b - c/Ny - r/N\beta$$

  while those in favor who do not pay receive:

$$b - c/Ny.$$

- Citizens who do not favor the project transfer have a payoff of

$$-c/Ny.$$

- Assuming that $b - c/Ny - r/N\beta > 0$, corruption cannot generate a Pareto inefficient policy outcome in this setting.

- The transfers made are individually rational – the effect is purely a movement around the Pareto frontier.

- Since we have assumed that $\gamma Nb > c$, corruption here actually increases social surplus relative to any policy which generates $e = 0$.

- Corruption here generates a Wicksellian political failure

  * But this assumes that is always used to increase intervention.

  * Corruption could actually be good from a Wicksellian point of view if it reduces intervention.

- Costly Rent-Seeking
  - Suppose that citizen i can pay y_i to influence the policy maker to go ahead with the project.
  - This uses real resources, i.e. cannot be appropriated by the policy maker.
  - Let total resources in favor be E_f and the total against is E_a.
  - Probability that the project goes ahead is:

$$\frac{E_f}{E_f + E_a}$$

  - We look for a Nash equilibrium in influence levels where all citizens have access to the influence technology and there is symmetry among the groups in favor and against the project.

– Consider the decision of citizen i who favors the project. His payoff if he contributes y_i is:

$$\frac{E_f}{E_f + E_a}\left(b - \frac{c}{N}\right) - y_i.$$

– Citizen k who opposes the project has a payoff of::

$$-\frac{E_f}{E_f + E_a}\frac{c}{N} - y_k.$$

– Solving for the Nash equilibrium in the usual way, it is straightforward to see that the equilibrium probability that the project goes ahead is:

$$\left(1 - \frac{c}{bN}\right).$$

– The key magnitude here is c/bN – the ratio of the cost of con-

struction per capita to the benefit to having the project for those who favor it.

– As the cost per capita becomes small (high N or low c), then probability that the project is constructed goes to one.

– The total expenditure on "rent-seeking" at a Nash equilibrium is:

$$\frac{c}{N}\left(1-\frac{c}{Nb}\right).$$

– Aggregate (ex ante) surplus at the Nash equilibrium is:

$$\left(1-\frac{c}{bN}\right)\left(N\gamma b - c\frac{(N+1)}{N}\right).$$

– The sign of this depends on comparing the total benefit ($N\gamma b$) with the total resource cost c and the per capita influence cost

c/N.

- Where c/N is small, it is clear that whether total surplus is positive or negative is not really affected by influence.

- The outcome with influence is ex post Pareto efficient.

- However, it can be Pareto dominated from an ex ante point of view by fixing the probability that the project is implemented at $q = \left(1 - \frac{c}{bN}\right)$.

- Just closing down the influence activity without committing to the project with probability $\left(1 - \frac{c}{bN}\right)$ would not achieve this outcome.

- From a surplus maximization point of view, the outcome with costly influence activities could be better or worse.

- If the outcome would be $e = 1$ with probability one without influence, then influence makes things worse.

- But if it were $e = 0$, the effect on social surplus is ambiguous.

- From a Wicksellian point of view, there is also an ambiguity depending on what the outcome would be without influence.

- If this would be $e = 0$, then clearly influence makes things worse.

- However, influence could be exercised against implementing projects which fail the Wicksellian test and hence could be beneficial from a contractarian point of view.

- Log-rolling and Legislative Behavior
  - Multi-district world
  - To explore this issue, we extend the model above in a very simple way.
  - Suppose now that policy decisions are made in a legislature comprising representatives selected from geographic regions.
  - The n districts that they represent are labeled $j = 1, ..., n$.
  - Each district is of equal size containing m citizens so $m \times n = N$.
  - A project can be built in each one district and is enjoyed solely by the residents of that district.

- The legislature can authorize the building of up to n projects (one for each district).

- Let $e_j \in \{0, 1\}$ denote whether a statue is built in district j.

- We assume that there is common pool financing – the taxation levied equally across the districts is equal to the total cost of projects that are financed divided by all citizens in the polity (regardless of residence).

- We also suppose (following Shepsle, Weingast, and Johnsen (1981)) that project allocation is governed by a "norm of universalism" in which the representative in each district can unilaterally decide whether to implement a project in its district.

– Each representative maximizes the average utility of a district resident which is

$$e_j m\gamma b - \frac{\sum_{k=1}^{n} e_k c}{n}.$$

– Note that this assumes that each district comprises an equal fraction (γ) of citizens who are in favor of the project.

– It is apparent that the representative in any district will wish to have a project located in his district provided that

$$N\gamma b > c.$$

– A project is desirable only if the surplus that it generates in the district that it is located in is positive, i.e., if $m\gamma b > c$.

– Thus the legislative process that we have posited along with common pool financing will yield excessive publicly financed spending

if

$$N\gamma b > c > m\gamma b.$$

- The outcome is Pareto inefficient if $b < c/m$.
- The outcome can be Pareto dominated by a cooperative solution in the legislature, i.e. one where all projects are simultaneously agreed upon rather than the delegating that decision to the representative within a district.
- This outcome fails the surplus maximizing criterion if $N\gamma b > c > m\gamma b$.
- It also fails Wicksell's test.

- Selecting Politicians
  - Suppose that the policy maker in office is a citizen from among the polity and that there are two types of citizens (and therefore politicians) differentiated according to the cost of implementing the public project.
  - Specifically, $c_i \in \{c_L, c_H\}$ for $i \in \{1, ..., N\}$. Suppose that
$$b > \frac{c_H}{N} > \frac{c_L}{N}.$$
  - Conditional on any citizen being in power, the outcome where $e = 1$ is Pareto efficient.
  - However, if a type H citizen is in power, then all citizens (including the policy maker!) is worse off than if a type L were choosing policy.

- This begs the question of why any sensible political system would ever select an incompetent citizen.

- Two arguments:
  - rents
  - ideology

- Having an incompetent policy may interfere with having a surplus maximizing outcome if

$$\frac{c_H}{N} > \gamma b > \frac{c_L}{N}.$$

- In this case, an incompetent policy maker implements the project and reduces social surplus.

- Incompetence may be "good" from a Wicksellian point of view. This happens if

$$\frac{c_H}{N} > b > \frac{c_L}{N}.$$

- A Dynamic Model

- We need a model where policy making extends over two periods which we will label by $t \in \{1, 2\}$.

- Suppose that the project can be implemented in each period and let $e_t \in \{0, 1\}$ denote the policy decision in period t.

- There are again two types of citizens: $\theta \in \{f, a\}$ where f stands for "for" and a stands for "against".

- The project yields a benefit b (i.e., $b_{f1} = b$) to them in period one if it is implemented and $B(e_1)$ (i.e., $b_{f2}(e_1) = B(e_1)$) in period two.

- Notice that we allow the period two benefit to depend on whether the period one project was chosen.

- The projects can be either complements $B(1) > B(0)$ or substitutes $B(0) > B(1)$.

- The citizens against the project value neither the period one nor period two project (i.e., $b_{a1} = b_{a2} = 0$).

- The cost of the project is c in each period and is divided by all N citizens.

- Suppose also that there is a rent to holding office which we denote by r which makes being re-elected attractive to the incumbent.

- The timing of the model is as follows.
  - Policy maker who earns a rent r and must choose $e_1 \in \{0, 1\}$.
  - Policy maker faces re-election which can be conditioned on this decision.
  - The period two incumbent must then make a period two project choice.

- Let e_t^* denote the equilibrium project choice in each period.

- Period 2:

$$e_2^*(\tau_2, e_1) = 1 \text{ if and only } B(e_1) \geq c/N$$

where $\tau_t \in \{f, a\}$ denotes the policy maker's type in period t.

- Now let:

$$W\left(e_1, \tau_2, \theta\right) = e_2^*\left(\tau_2, e_1\right)\left[b_{\theta 2}\left(e_1\right) - \frac{c}{N}\right]$$

be any citizen's second period utility from the policy choice made by the period two incumbent.

- Let $\pi\left(e_1\right) \in [0, 1]$ denote the probability that the incumbent is re-elected as a function of the period one project that he implements.

- There are three cases.
  - Project is *neutral* if $\pi\left(1\right) = \pi\left(0\right)$,
  - P*olitically advantageous* if $\pi\left(1\right) > \pi\left(0\right)$,

– and *politically damaging* if $\pi(1) < \pi(0)$.

- Period 1: Politician's preference

$$e_1\left(b_\tau - \frac{c}{N}\right) + \pi(e_1)\left(r + W(e_1, \tau, \tau)\right) + \tag{1}$$

$$(1 - \pi(e_1))\left[qW(e_1, \tau, \tau) + (1 - q)W(e_1, -\tau, \tau)\right] \tag{2}$$

where q is the probability that the future policy maker is of type τ and $-\tau$ denotes the policy maker of the opposite type.

- This equation embodies the three main considerations that shape policy making in dynamic settings:

  – Short term policy considerations – these are represented by $\left(b_\tau - \frac{c}{N}\right)$. The policy could be worthwhile or otherwise in terms of its current benefits.

– Long-term policy considerations – these are represented by the dependence of $W(e_1, \tau, \tau)$ on e_1. The policy affects future period policy utilities because the benefit from future policy depends on today's policy choice. Crucially, this may be true when the future policy maker does not share the preferences of the current policy maker as represented by the payoff $W(e_1, -\tau, \tau)$. This is the term that is captured in the public debt papers referred to above.

– Long-term political considerations – This is represented by the way in which $\pi(e)$ depends on e_1.

- The following benchmark result is based on Besley and Coate (1998).

- Suppose that
  - (i) the policy is politically neutral and
  - (ii) $e_2^*(\tau_2, e_1)$ does not depend on e_1 for $\tau_2 \in \{f, a\}$.
  - Then the policy choice over e_1 will be Pareto efficient.

- At the heart of political failures in this setting, therefore, are the ways in which there is an affect on policy or the choice of policy maker.

- **Example 1:** Suppose also that if the policy maker implements the project, then he will be removed from office while he will be re-elected for sure if does not implement the project, i.e. $\pi(1) = 0$ and $\pi(0) = 1$. This violates the first condition required for efficient policy making above. There is no rent associated with holding office, i.e. $r = 0$. It should be now be clear that as long as:

$$b_{a1} - (2 - q)\, c/N < 0$$

then the project will not be implemented. The reason for this is that the cost of implementing the project in period one is to have a period two policy maker of the opposite type. This would not be an issue if $\pi(1) = 1$ since then the policy maker in period one would retain control of the period two policy outcome. It is only the fact that political controls is affected by policy choice that drives the result.

- **Example 2:** In the second example, we assume that the policy is politically neutral. Specifically, $\pi(1) = \pi(0) = 0$. Suppose also that $q = 0$ so that the a policy of the opposite preference is anticipated in period two. Suppose that a period two policy maker of type f values the project in period two only if the project was implemented in period one. Formally,

$$b_{f2}(1) > \frac{c}{N} > b_{f2}(0).$$

Then, of a period one policy maker is of type a and he implements the project, he will induce a future type f policy maker to implement the project whereas if he avoids the period one project, then neither type of policy maker will wish to implement the project. The project is not worthwhile for a type a policy maker in period one if:

$$b_{a1} - 2c/N < 0.$$

If this assumption holds, then a Pareto inefficient policy choice will be made. Here, the logic is the direct effect of period one policy choices on the optimal period two policy outcome. In this case

$$e_2^*(f,1) > e_2^*(f,0)$$

violating the second condition for Pareto efficiency policy above.

Common Sense Ideas of Good Government

- Responsive government
- Trust in government
- Legitimate Government
- Can these ideas be captured or is the framework too restrictive?

How to Measure the Quality of Government?

- La Porta et al (1999) who look at the institutional determinants of various measures of government performance.

- Their main dependent variables are:
  - (i) interference with private sector as measured property rights index, business regulation index, top tax rate,
  - (ii) efficiency measures such corruption, bureaucratic delays, tax compliance, average government wages/GDP per capita,
  - (iii) output of public goods as captured by infant mortality, school attainment, the illiteracy rate, and infrastructure quality,

- (iv) The size of the public sector as measured by transfers and subsidies as a proportion of GDP, government as a proportion of GDP, the importance of state owned enterprises in the economy, and public sector employment.

- (v) political freedom as captured by democracy and political rights indices. As independent variables, they use ethnolinguistic fractionalization, legal origin, religion, income per capita and latitude.

- Their main conclusions are

  - (a) that rich countries have better governments than poor ones,

  - (b) ethnolinguistically homogeneous governments have better governments than those that are heterogeneous,

- (c) common law governments have better governments than this with civil law or socialist law origins,

- (d) predominantly protestant countries have better governments than those that are predominantly Catholic or predominantly Muslim.

- (e) Better performing governments are larger and collect higher taxes.

Responses to Political Failure

- Constitutional Change
  - Procedural change
  - Policy constitutions
- Complementary institutions
  - civil society
  - media
  - watchdogs