

## Lecture 10

### Limits to Public Intervention: Government Failures

Direct democracy – voting.

Issues arise when using voting to reveal preferences.

Condorcet in France in the 18<sup>th</sup> century discovered that in a set of pair-wise votes, majority votes can disobey the properties of transitivity for a group.

Budget.

Low – low cost budget

Medium – same as the area norm

High – with fancy high cost stuff

Three groups in society:

Moderates, who prefer Medium, to High, to Low (45%)

Fiscal Conservatives, who prefer Low, to Medium, to High (35%)

Effective Schoolers, who prefer High, to Low, to Medium (20%)

	Preferences over Budget Levels			Percent of the vote
	First Choice	Second Choice	Third Choice	
Moderates	Medium	High	Low	45%
Fiscal Conservatives	Low	Medium	High	35%
Effective Schoolers	High	Low	Medium	20%

Table 8.1 : Two rounds of voting, pair-wise voting.

***Agenda A: Compare High to Low, then winner takes on Medium***

Round 1: High versus Low. High wins 45% moderates, 20% effective schoolers = 65%

Round 2: High versus Medium. Medium wins 45% of moderates, 35% of fiscal conservatives=80%

**RESULT: Medium**

***Agenda B: Compare Medium versus Low, winner takes on High***

Round 1: Medium versus Low. Low wins 35% of conservatives, 20% of effective schoolers = 55%

Round 2: Low versus High. High wins 45% moderates, 20% effective schoolers = 65%

**RESULT: High**

***Agenda C: Compare High versus Medium, winner takes on Low***

Round 1: High versus Medium, Medium wins 45% of moderates, 35% of fiscal conservatives=80%

Round 2: Medium versus Low. Low wins 35% of conservatives, 20% of schoolers = 55%

**RESULT: Low**

Can be more uncertain 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.

Arrow in 1951 illustrated that any rule of voting that satisfies a basic set of fairness conditions can lead to an illogical result. A group of two or more people choosing from a set of three or more options.

**First:** 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.

**Second:** If one alternative is unanimously preferred to a second, then the rule of choice will not select the second (axiom of Pareto choice).

**Third:** The ranking for any two alternatives should not change if a third alternative is introduced (axiom of independence).

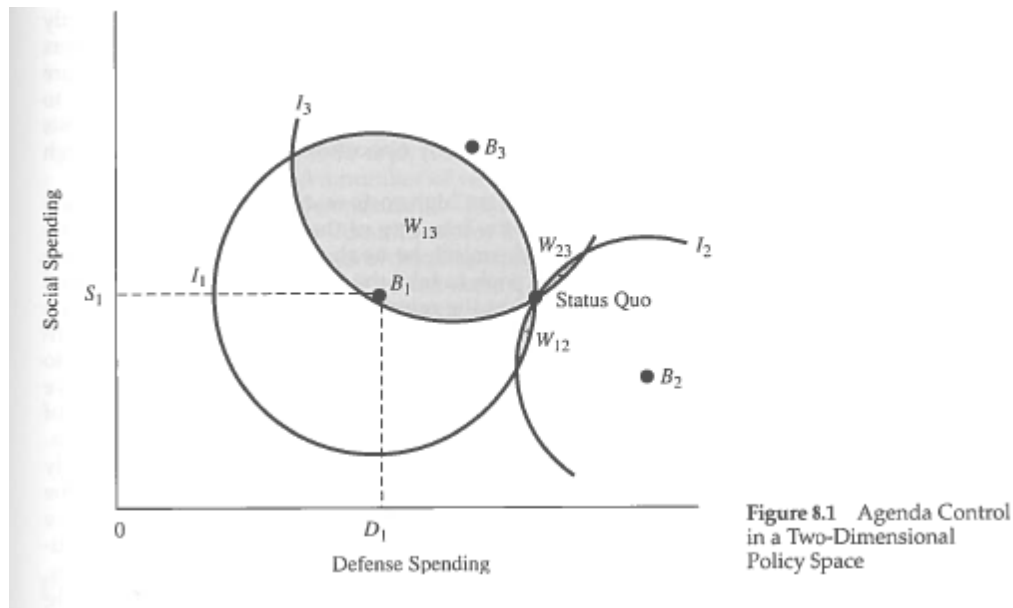
**Fourth:** The rule should not allow one person dictatorial power over the other members deciding (axiom of nondictatorship).

Any fair voting system that obeys these four properties will fail to ensure a transitive social ordering of policy alternatives.

A policy will be selected, but the framing of the question becomes an important determinant of what the final answer will be.

The power to set the agenda then is a powerful tool.

Figure 8.1 illustrates the concept of agenda control.



Y axis is social spending, x-axis is defense spending.

Policy makers have ‘bliss points’,  $B_1$ ,  $B_2$ , and  $B_3$ .

Around these respective ‘bliss points’ they have circular indifference curves, where closer in is preferred to farther out.

The status quo is the current spending on both.

“Win Sets” are the areas where a positive vote (2 yes, 1 no) are possible.

- There is a  $W_{13}$  where one and three vote yes and two votes no.
- There is a  $W_{12}$  where one and two vote yes and three votes no.
- There is a  $W_{23}$  where two and three vote yes and one votes no.

If one can set the agenda, then can propose  $B_1$  and it will win, as it is preferred (slightly) by three to the status quo. If two could set the agenda, could propose something in either of the two other 'win sets' to build a majority.

As we explored perfectly competitive markets, we came to the argument that a utility maximizing consumer and a profit maximizing producer meet in a market. The outcome of a perfectly competitive market is economic efficiency that maximizes total social welfare.

This is the fundamental theorem of welfare economics.

There is no corollary that is a fundamental theorem of electoral democracy.

Democratic processes do not always give us a true assessment of social values.

Governments following the 'will of the people' will not always be doing good.

On the other hand, the selling point may be more that it allows a way to correct really bad mistakes by voting people out.

Democratic processes "...may deny us the full benefits of a truly benevolent and wise government, but they help protect us from the harm of one that is either evil or foolish'. (P 163)

## Issues of Representative democracy:

Representatives have their own interests, reelection, constituents, prestige...that may distract them from questions of what maximizes social welfare.

- Campaign contributions. Difficulty of discerning whether donors give to those who make the kinds of decisions they like or whether they influence decisions.
- Monitoring representatives is costly and time consuming. Those who have the time and money to monitor tend to be non – representative in their preferences, as they are often interest groups.
- Party discipline may influence decisions.

## Problems of geographic representation:

Say there are 100 districts, each with 1000 people, all voting in support of or against a proposal.

In 51 of the districts, 501 people support, 499 don't support a proposal. If each representative is voting according to the majority will of the constituents, there will be 51 yes votes.

In the other 49 districts, all 1000 people are against. If each representative is voting according to the majority will of the constituents, there will be 49 no votes.

It will pass 51 representative say yes, 49 say no.



However, in the total population, there are 74,449 against  
[49,000 (49\*1000) + 25,449 (51\*499)]

In the population, there are 25,551 (51\*501) for.

So even though there are 74,449 people opposed and 25,551 for  
the project passes.

Another aspect to consider is 'Regulatory capture' – regulating  
agency eventually finds it has moved from monitoring and  
oversight of an industry to an advocacy / facilitation / protection  
of the industry role.

- “Revolving door” as people move back and forth  
between government and industry.
- Expertise may be more valuable in industry than in  
government.

Voting and public goods.

Finding everyone's valuation is difficult if not impossible.

Even if you knew, practical issues arise about charging different people different rates.

Usually, we end up charging a uniform rate.

Median voter theorem. A project will pass if the median voter's valuation is greater than the cost to that voter.

Project is a traffic light. Total cost of light installation is \$300. There are 3 voters here who get benefits and pay the costs. Assume they split the costs evenly, so each one pays \$100 per light installed.

They can install no lights, one light, two lights, or three lights.

Three corners are being voted on, and the following represents the voters WTP.

	Fred	Barney	Wilma
Corner A	50	100	150
Corner B	50	75	250
Corner C	50	100	110

Corner A has a total WTP of 300

Corner B has a total WTP of 375

Corner C has a total WTP of 260

Barney is always the median voter.

Which ones will pass if we vote and people vote yes if their WTP-cost is greater than or equal to zero?

Yes – no voting ignores intensity of preferences.

If the valuation of the median voter is greater than the cost to that voter, it will pass a vote with a majority.

## FURTHER ISSUES TO BE AWARE OF IN POLITICAL PROCESS OF DECISION MAKING

Planning horizon in public sector is tied to election cycle (for elected officials).

Plays out through the media. Importance of media attention for policy makers as means of communicating to voters their importance. Importance of media to campaigns in terms of advertising.

Role of policy 'windows'. Reactive to event, leads to policy outcomes that respond to the event rather than perhaps underlying issues as a whole.

View of sunk costs may differ, public and private.

Private (or at least market forces) make sunk cost not relevant – do the marginal revenues outweigh the marginal costs of going forward.

Public may have less discipline than private in that it may consider sunk costs as backing down is admitting a mistake that can be used against politicians in a political context.

Public decisions and political exposure may lead to a throwing good money after bad approach.

Importance of precedents in public decision making. If you bail out one, you have to bail out others. If you allow a provision for

one state's residents, you may have to allow it for others. Firms don't have to be as consistent.

In the political arena, perception framing by stressing risk, uncertainty, and worst case scenarios (balanced against the other side minimizing risk, uncertainty, and best case scenarios). In a contested policy debate, there are incentives to move to the extreme rather than consensus.

Summary on page 178 of why socially optimal outcomes may diverge from politically selected outcomes.

Nature of the interests among the voting population	Concentrated interests have a strong incentive to monitor and lobby
	Diffuse interests have weak incentives to monitor and lobby
	Organized diffuse interests that overcome collective action problems monitor and lobby
	Diffuse interests may be mobilized around sudden media attention to the topic and creation of a 'policy window'.
Incentives of elected representatives generally	Focused on how actions will influence elections, underemphasize long run cost, overemphasize short run benefits
	Emphasis on risk or cost of opponents proposals to take advantage of risk aversion
Incentives of elected representatives with regard to their constituency	Seek benefits of a policy for the district even if it is to the detriment of society
	Seek to capture the contracts for factor suppliers from the district even if they are not the lowest cost or best suppliers.

Government creates organizations to supply goods and services that the private market cannot or we think should not supply (national defense, legal institutions, monetary policy, EPA,...)

Some differences between the incentive structures in a private firm and a public organization.

Firm, maximize profit as revenue minus cost. Incentive to minimize cost to maximize return.

Public organization - write a project budget, get awarded a given amount with budget lines for different activities, and scramble to spend out by the end of the fiscal year. The amount you get next year is often a function of how much you got this year, so not much incentive to underspend. Also, can't use distribution of unspent money as an incentive structure (without getting in trouble at least we hope).

Pay scale in private sector at least in theory based on the value of the marginal product.

Pay scale in the public sector a function of something like a GS table with time served as a way of moving up:

SALARY TABLE 2016-GS  
INCORPORATING THE 1% GENERAL SCHEDULE INCREASE  
EFFECTIVE JANUARY 2016

*Annual Rates by Grade and Step*

Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	WITHIN GRADE AMOUNTS
1	\$ 18,343	\$ 18,956	\$ 19,566	\$ 20,173	\$ 20,783	\$ 21,140	\$ 21,743	\$ 22,351	\$ 22,375	\$ 22,941	VARIES
2	20,623	21,114	21,797	22,375	22,629	23,295	23,961	24,627	25,293	25,959	VARIES
3	22,502	23,252	24,002	24,752	25,502	26,252	27,002	27,752	28,502	29,252	750
4	25,261	26,103	26,945	27,787	28,629	29,471	30,313	31,155	31,997	32,839	842
5	28,262	29,204	30,146	31,088	32,030	32,972	33,914	34,856	35,798	36,740	942
6	31,504	32,554	33,604	34,654	35,704	36,754	37,804	38,854	39,904	40,954	1,050
7	35,009	36,176	37,343	38,510	39,677	40,844	42,011	43,178	44,345	45,512	1,167
8	38,771	40,063	41,355	42,647	43,939	45,231	46,523	47,815	49,107	50,399	1,292
9	42,823	44,250	45,677	47,104	48,531	49,958	51,385	52,812	54,239	55,666	1,427
10	47,158	48,730	50,302	51,874	53,446	55,018	56,590	58,162	59,734	61,306	1,572
11	51,811	53,538	55,265	56,992	58,719	60,446	62,173	63,900	65,627	67,354	1,727
12	62,101	64,171	66,241	68,311	70,381	72,451	74,521	76,591	78,661	80,731	2,070
13	73,846	76,308	78,770	81,232	83,694	86,156	88,618	91,080	93,542	96,004	2,462
14	87,263	90,172	93,081	95,990	98,899	101,808	104,717	107,626	110,535	113,444	2,909
15	102,646	106,068	109,490	112,912	116,334	119,756	123,178	126,600	130,022	133,444	3,422

This does not reflect the value of the marginal product! There are also geographic cost of living differences.

Difficulty in assigning a precise economic value to the output of public agencies. What is the marginal value of another ship for the Navy?

What is the value of having a FDA?

From the Washington Post:

**FDA pressured to combat rising 'food fraud'**

By [Lyndsey Layton](#)

Washington Post Staff Writer

Tuesday, March 30, 2010

“The expensive "sheep's milk" cheese in a Manhattan market was really made from cow's milk. And a jar of "Sturgeon caviar" was, in fact, Mississippi paddlefish.... “Food fraud" has been documented in fruit juice, olive oil, spices, vinegar, wine, spirits and maple syrup, and appears to pose a significant problem in the seafood industry. Victims range from the shopper at the local supermarket to multimillion companies, including E&J Gallo and Heinz USA. Such deception has been happening since Roman times, but it is getting new attention as more products are imported and a tight economy heightens competition. And the U.S. food industry says federal regulators are not doing enough to combat it. ...”

<http://www.washingtonpost.com/wp-dyn/content/article/2010/03/29/AR2010032903824.html?hpid=topnews>



Another issue is the incentive to innovate. In the private sector, there is a profit motive to shift up the production function. In the public sector, there is not the same pressure.

Private sector has less protection of employees – easier to hire and fire.

Public sector, due to the change in parties in charge, has to have policies in place to protect civil servants.

Private sector can change in response to changing factor prices.

Public sector, lines are in the budget, and moving funds across lines is a difficult process.

Decentralization can lead to there being multiple levels of governance some in a hierarchy, some not, and also separation of powers at a given level of governance.